

Oracle® Communications
Diameter Signal Router Full Address Resolution

SDS Initial Installation and Configuration Guide

Release 7.1/7.2/7.3

E58856, Revision 05

September 2016

Oracle® Communications Diameter Signal Router Full Address Resolution, SDS Initial Installation and Configuration, Release 7.1/7.2/7.3.

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, then 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 about 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 unless otherwise set forth in an applicable agreement between you and Oracle. 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, except as set forth in an applicable agreement between you and Oracle.



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

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

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

TABLE OF CONTENTS

1.0	INTRODUCTION	8
1.1	Purpose and Scope	8
1.2	References.....	8
1.3	Acronyms.....	8
1.4	Assumptions	10
1.5	XML Files.....	10
1.6	How to use this Document.....	10
2.0	PRE-INSTALLATION SETUP.....	11
2.1	Installation Prerequisites.....	11
2.2	Physical Connections.....	11
2.3	Access Alternatives for Application Install	12
2.4	Activity Logging.....	13
2.5	Firmware and BIOS Settings	13
2.5.1	Configure the CMOS Clock, BIOS Settings, and iLO IP Address and Upgrade Firmware	15
3.0	INSTALLATION MATRIX.....	16
3.1	Installing SDS on the Customer Network.....	16
4.0	APPLICATION INSTALL.....	19
4.1	Installing the SDS Application (All SDS NOAM sites)	19
5.0	CONFIGURATION PROCEDURES.....	27
5.1	Configuring SDS Servers A and B (1 st SDS NOAM site only)	27
5.2	OAM Pairing (1 st SDS NOAM site only)	46
5.3	Query Server Installation (All SDS NOAM sites).....	61
5.4	OAM Installation for the DR SDS NOAM site	79
5.5	OAM Pairing for DR SDS NOAM site	95
5.6	Add SDS software images to PMAC servers (All SOAM sites)	106
5.7	OAM Installation for SOAM sites (All SOAM sites).....	110
5.8	OAM Pairing for SDS SOAM sites (All SOAM sites).....	135
5.9	DP Installation (All SOAM sites).....	146
5.10	Configuring ComAgent	176
Appendix A.	ACCESSING THE ILO VGA REDIRECTION WINDOW	179
Appendix B.	HP DL360 BIOS SETTINGS	181
Appendix C.	CREATING TEMPORARY EXTERNAL IP ADDRESS FOR ACCESSING SDS GUI.....	184
Appendix D.	ESTABLISHING A LOCAL CONNECTION FOR ACCESSING THE SDS GUI.....	186
Appendix E.	CONFIGURE CISCO 4948E-F AGGREGATION SWITCHES	190
E.1	Verifying Cisco Switch Wiring (All SDS NOAM sites)	191
E.2	Configure Cisco 4948E-F Aggregation Switches	195
E.3	Cisco 4948E-F IOS Upgrade (All SDS NOAM sites)	223
E.4	Cisco 4948E-F Configuration Backup (All SDS NOAM sites).....	233
Appendix F.	CREATING AN XML FILE FOR INSTALLING NETWORK ELEMENTS	235
Appendix G.	NETBACKUP CLIENT INSTALLATION	238
Appendix H.	LIST OF FREQUENTLY USED TIME ZONES	239
Appendix I.	ACCEPTING INSTALLATION THROUGH SDS NOAM GUI.....	242
Appendix J.	DISABLE HYPERTHREADING (DP ONLY)	245

Appendix K. CONFIGURE THE HP DL380 (GEN8 & GEN9) SERVER CMOS CLOCK/BIOS SETTINGS 255

 K.1 GEN8: CONFIGURE THE ILO FOR RACK MOUNT SERVER 255

 K.2 GEN9: RMS CONFIGURE ILO 275

Appendix L. ACCESSING MY ORACLE SUPPORT (MOS) 300

List of Tables

Table 1 - Acronyms 9

Table 2 - SDS Installation Matrix..... 17

Table 3 - SDS Installation: List of Procedures 18

Table 4 - SDS Network Element Configuration File (IPv4) 236

Table 5 - SDS Network Element Configuration File (IPv6) 237

Table 6 - List of Selected Time Zone Values 239

List of Figures

Figure 1- HP DL360, DC (Rear Panel) 11

Figure 2 - HP DL380 Gen8, DC (Rear Panel)..... 12

Figure 3 - HP DL380 (Gen9), DC (Rear Panel)..... 12

Figure 4 - HP DL360 G6 Front Panel (USB Port) 21

Figure 5 - HP DL380 Gen8, Front Panel (USB Port) 21

Figure 6 - HP DL380 Gen9, Front Panel (USB Port)..... 21

Figure 7 - HP DL360 G6, Rear Panel (Ethernet) 44

Figure 8 - HP DL380 Gen8, Rear Panel (Ethernet) 44

Figure 9 - HP DL380 (Gen9), DC (Rear Panel) 44

Figure 10 - Cisco 4948E-F Switch (Maintenance Access Port)..... 45

Figure 11- SDS Frame Layout..... 191

Figure 12 - Cisco 4948E-F Switch ISL Connections 191

Figure 13 - Cisco 4948E-F Switch (Console Port) 191

Figure 14 - HP DL380 Gen8, Rear Panel (Quad-Serial Ports) 192

Figure 15 - HP DL360 G6, Rear Panel (Quad-Serial Ports)..... 192

Figure 16 - HP DL380 (Gen9), DC (Rear Panel) 194

Figure 17.iLO Configuration - GEN8: Press [F8] to configure 255

Figure 18. iLO Configuration - Initial iLO Configuration Screen 256

Figure 19. iLO Configuration - select Network->DNS/DHCP 257

Figure 20. iLO Configuration - press [SPACE BAR] to turn DHCP OFF 258

Figure 21. iLO Configuration - Select NIC and TCP/IP 259

Figure 22. iLO Configuration - Select NIC and TCP/IP and configure Network..... 260

Figure 23. iLO Configuration - Select User - Add 262

Figure 24. RBSU - Enter RBSU - "F9 Pressed" indicated in HP Splash screen 264

Figure 25. iLO Configuration - Initial iLO Configuration Screen 264

Figure 26. ROM-Based Setup Utility - initial screen 265

Figure 27. ROM-Based Setup Utility - Serial Port Options265

Figure 28. Verify Embedded Serial Port setting266

Figure 29. RBSU - Select Power Management Options.....268

Figure 30. RBSU - Select HP Power Profile and Maximum.....269

Figure 31. Select Standard Boot Order270

Figure 32. Select “Set the IP Device Boot Order to 1”270

Figure 33. IPL:1 is now USB DriveKey (C:).....270

Figure 34. Select Date and Time271

Figure 35. Set Date and Time (UTC).....271

Figure 36. RBSU - Select Server Availability272

Figure 37. RBSU - Verify ASR Status is set to Enabled.....273

Figure 38. RBSU - Verify Automatic Power-On is set to Enabled.....273

Figure 39. RBSU - Verify Power-On Delay is set to No Delay274

Figure 40. RBSU - Exit ROM-Based Setup Utility275

Figure 41. Gen9: iLO Configuration - GEN9: Press [F9] to configure.....276

Figure 42. Gen9: iLO4: Select System Configuration277

Figure 43. Gen9: iLO: Select iLO4 Configuration Utility277

Figure 44. Gen9: iLO Configuration - User Management278

Figure 45. Gen9: iLO Configuration - Add User278

Figure 46. Gen9: iLO Configuration - Add New User Name: tekelec279

Figure 47. Gen9: iLO Configuration - select Network Options.....279

Figure 48. Gen9: iLO Configuration - DHCP Enable to OFF.....280

Figure 49. Gen9: iLO Configuration - Network Configuration IP, Subnet, Gateway281

Figure 50. Gen9: iLO Configuration - F10 Save Changes282

Figure 51. Gen9: iLO Configuration - Change Reboot Message282

Figure 52. Gen9 RBSU - Enter RBSU - “F9 Pressed” indicated in HP Splash screen283

Figure 53. Gen9: Select System Configuration284

Figure 54. Gen9: Select BIOS/Platform Configuration (RBSU)284

Figure 55. Gen9: ROM-Based Setup Utility - System Options.....285

Figure 56. Gen9: ROM-Based Setup Utility - Serial Port Options285

Figure 57. Gen9: Verify Embedded Serial Port setting.....286

Figure 58. Gen9: Verify Virtual Serial Port setting286

Figure 59. Gen9: RBSU - Select Power Management287

Figure 60. Gen9: RBSU - Select HP Power Profile and MaximumPerformance.....288

Figure 61. Gen9: Select Boot Options.....289

Figure 62. Gen9: Select Legacy BIOS Boot Order289

Figure 63. Select “Set the IP Device Boot Order USB DriveKey”290

Figure 64. Select “Set the IP Device Boot Order Embedded LOM 1 Port 1”290

Figure 65. Gen9: Select Date and Time.....291

Figure 66. Gen9: Set Date and Time (UTC)291

Figure 67. Gen 9: RBSU - Select Server Availability.....292

Figure 68. Gen9: RBSU - Verify ASR Status is set to Enabled293

Figure 69. Gen9: RBSU - Verify Automatic Power-On is set to Always Power on.....293

Figure 70. Gen9: RBSU - Verify Power-On Delay is set to No Delay294
Figure 71. Gen9: RBSU - Verify Post F1 Prompt is set to Delayed 20 seconds294
Figure 72. Gen 9: RBSU - Verify Advanced Options.....296
Figure 73. Gen 9: RBSU - Verify Fan and Thermal Options297
Figure 74. Gen9: RBSU - Save Changes and Confirm.....298
Figure 75. Gen9: RBSU - Changes Saved298
Figure 76. Gen9: Exit System Utilities.....299

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 7.1/7.2/7.3 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 7.1/7.2/7.3 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
- [11] *Site Survey-Oracle Eagle XG Rackmount Equipment*, SS006026

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

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

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

1.6 How to use this Document

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

When executing this document for either purpose, there are a few points which help to ensure that the user understands the author's intent. These points are as follows;

- 1) Before beginning a procedure, completely read the instructional text (it will appear immediately after the Section heading for each procedure) and all associated procedural WARNINGS or NOTES.
- 2) Before execution of a STEP within a procedure, completely read the left and right columns including any STEP specific WARNINGS or NOTES.

If a procedural STEP fails to execute successfully, STOP and contact Oracle's Customer Service for assistance before attempting to continue. See **Appendix L - 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.
- TPD “admusr” user password.

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

2.2 Physical Connections

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

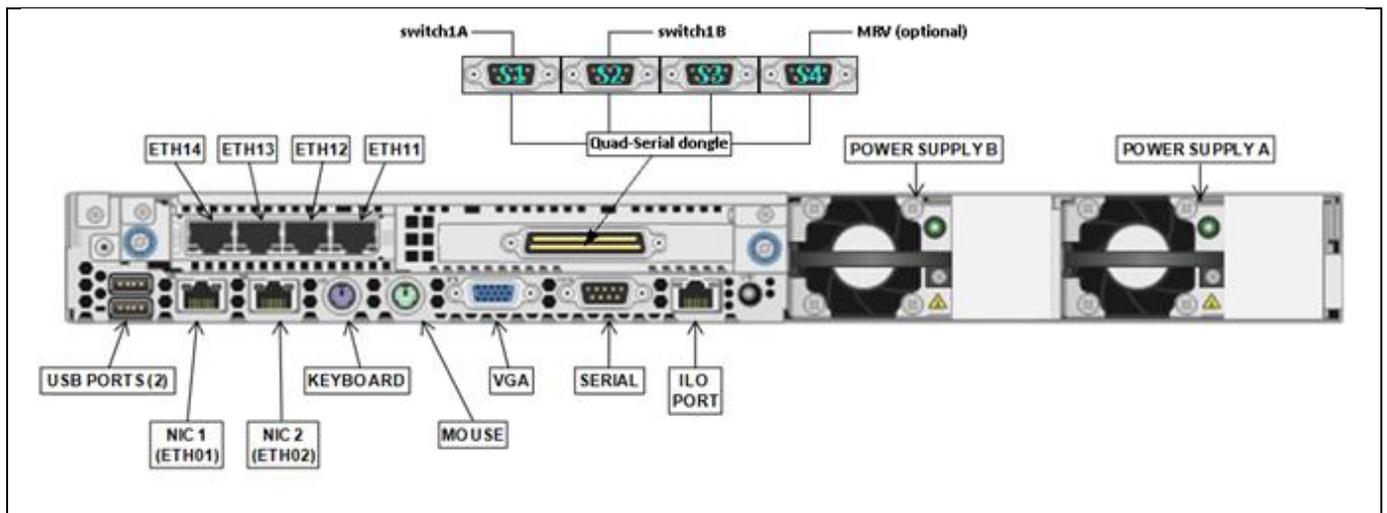


Figure 1- HP DL360, DC (Rear Panel)

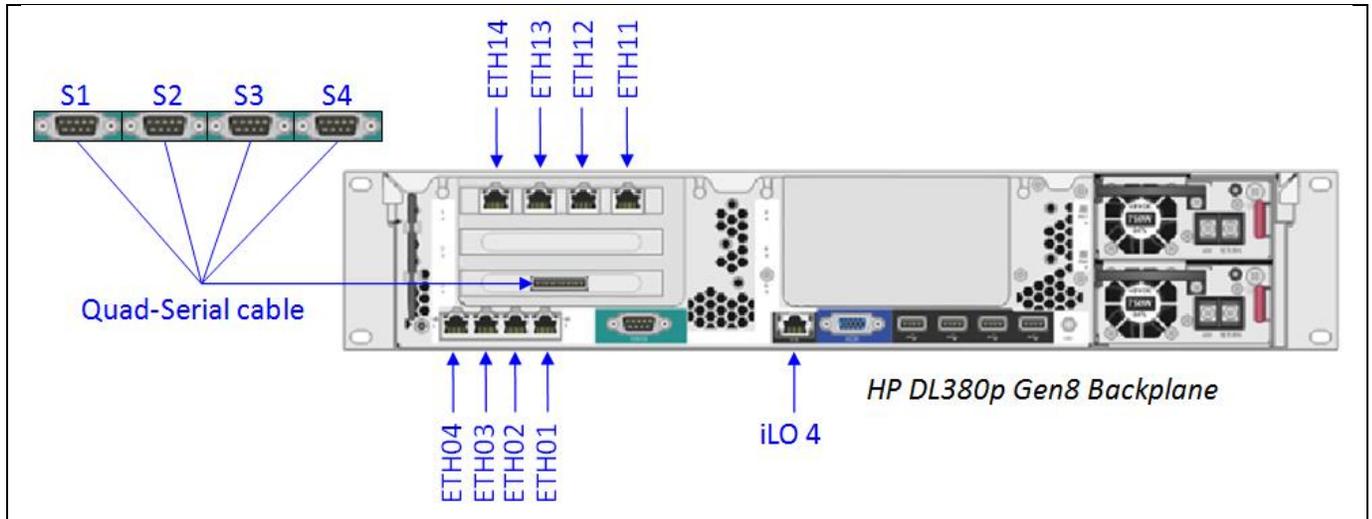


Figure 2 - HP DL380 Gen8, DC (Rear Panel)

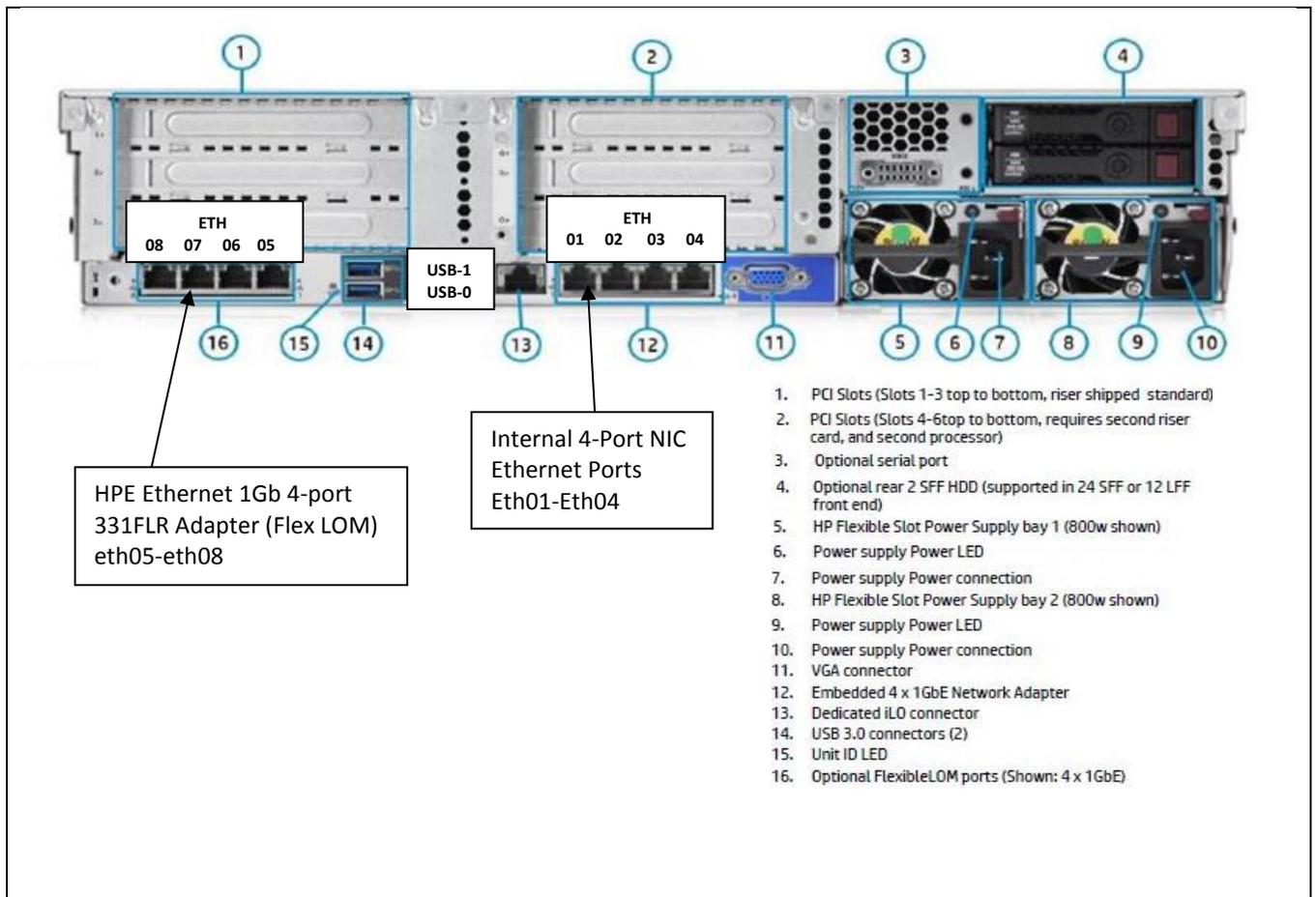


Figure 3 - HP DL380 (Gen9), DC (Rear Panel)

2.3 Access Alternatives for Application Install

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

<p>One of the Access Methods shown to the right may be used to initiate and monitor SDS installation.</p>	<input type="checkbox"/>	<p>Method 1)</p>	<p>VGA Monitor and PS2 Keyboard.</p>
<p>NOTE: <i>Methods 3 & 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.</i></p>	<input type="checkbox"/>	<p>Method 2)</p>	<p>Laptop +  KVM2USB switch. http://www.epiphan.com/products/frame-grabbers/kvm2usb/</p>
	<input type="checkbox"/>	<p>Method 3)</p>	<p>iLO VGA Redirection Window, IE8 (or IE9 with Document Mode “IE8 Standards”), Ethernet cable. (See Appendix A)</p>
	<input type="checkbox"/>	<p>Method 4)</p>	<p>iLO access via SSH, terminal program, Ethernet cable.</p>

2.4 Activity Logging

All activity while connected to the system should be logged using a convention which notates the **Customer Name**, **Site/Node** location, **Server Hostname** and the **Date**. All logs should be provided to ORACLE Communications for archiving post installation.

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

2.5 Firmware and BIOS Settings

Prior to upgrading the Firmware of the DL360 (Gen6) and DL380(Gen8 & Gen9) servers the CMOS Clock, BIOS Settings, and iLO IP Address needed to be configured. These configuration procedures are defined in **Appendix B** and **Appendix K** of this document.

Several procedures in this document pertain to the upgrading of firmware on DL360 and DL380 servers and Cisco 4948 E-F switches that are part of the Platform 7.0.x configuration.

The required firmware and documentation for upgrading the firmware on HP hardware systems and related components are distributed as the *HP Solutions Firmware Upgrade Pack*. The minimum firmware release required for Platform 7.0.x is *HP Solutions Firmware Upgrade Pack 2.2.9 or higher*. If a firmware upgrade is needed, the current GA release of the *HP Solutions Firmware Upgrade Pack* should be used.

Each version of the *HP Solutions Firmware Upgrade Pack* contains multiple items including media and documentation. If an HP FUP 2.x.x version newer than the Platform 7.0.x minimum of HP FUP 2.2.9 is used, then the *HP Solutions Firmware Upgrade Guide* should be used to upgrade the firmware. Otherwise, the *HP Solutions Firmware Upgrade Guide*, Release 2.x.x should be used.

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

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

Refer to the Release Notes of the [6] *HP Solutions Firmware Upgrade Pack Release Notes, Release 2.x.x, (Min 2.2.9)* to determine specific firmware versions needed.

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

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

The following procedure explains the steps needed to configure the CMOS Clock, BIOS Settings, and iLO IP Address of the DL360/DL80 RMS servers and upgrade the firmware. (If needed).

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

S T E P #	<p>The following procedure explains the steps needed to configure the CMOS Clock, BIOS Settings, and iLO IP Address of the DL360/DL80 RMS servers and upgrade the firmware. (If needed).</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If this procedure fails, contact Appendix L My Oracle Support and ask for assistance.</p>	
1 <input type="checkbox"/>	Configure RMS Server.	<p>Connect to the RMS Server using a VGA Display and USB Keyboard.</p> <p>For HP DL 360 (G6) Server execute:</p> <p>Appendix B. HP DL360 Configure CMOS Clock, BIOS Settings, and iLO IP Address</p> <p>For HP DL 380 (G8) Servers execute:</p> <p>Appendix K.1.1 RMS: Configure ILO Appendix K.1.2 GEN8: RMS BIOS Configuration, verify processor & memory.</p> <p>For HP DL 380 (G9) Servers execute:</p> <p>Appendix K.2.1 RMS: Configure Ilo Appendix K.2.2 GEN9: RMS BIOS Configuration, verify processor & memory</p>
2 <input type="checkbox"/>	RMS Server: Verify/Upgrade Firmware	<p>Follow the appropriate procedure for the ProLiant DL360(G6) or DL380(G8/G9) hardware type to verify and upgrade the HP server firmware using the procedures in [7] HP Solutions Firmware Upgrade Pack Upgrade Guide, Release 2.x.x, (Min 2.2.9)</p> <p>Check-off the associated Check Box in step 3 as the RMS server’s CMOS Clock, BIOS Settings, and iLO IP Address has been configured and firmware is updated:</p>

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

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

3.0 INSTALLATION MATRIX

3.1 Installing SDS on the Customer Network

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

NOTE: *Although the SDS sites are fully redundant by function, we must distinguish between them during installation due to procedural changes based on the installation sequence. The user should be aware that*

any reference to the “SDS” site refers to the 1st installation of a SDS pair on the customer network while references to the “DR SDS” site refers to the 2nd SDS pair to be installed.

SDS Installation Matrix

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

Table 2 - SDS Installation Matrix

SDS Installation: List of Procedures

Procedure No :	Title :	Page No :
1	Installing the SDS Application (All SDS NOAM sites)	19
2	Configuring SDS Servers A and B (1st SDS NOAM site only)	27
3	OAM Pairing (1st SDS NOAM site only)	46
4	Query Server Installation (All SDS NOAM sites)	61
5	OAM Installation for the DR SDS NOAM site	79
6	OAM Pairing for DR SDS NOAM site	95
7	Add SDS software images to PMAC servers (All SOAM sites)	106
8	OAM Installation for SOAM sites (All SOAM sites)	110
9	OAM Pairing for SDS SOAM sites (All SOAM sites)	135
10	DP Installation (All SOAM sites)	146
11	Configuring ComAgent	176
E.1	Figure 11- SDS Frame Layout	191
E.2	Configure Cisco 4948E-F Aggregation Switches	194
E.3	Cisco 4948E-F IOS Upgrade (All SDS NOAM sites)	223
E.4	Cisco 4948E-F Configuration Backup (All SDS NOAM sites)	233
J	Disable Hyperthreading (DP Only)	245

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 Section 2.3 .
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><admusr_password></code>
3. <input type="checkbox"/>	Verify that Date & Time are displayed in GMT (+/- 4 min.).	<code>\$ date -u</code> Wed Oct 22 14:07:12 UTC 2014 <code>\$</code>
<div style="border: 1px solid black; padding: 10px;">  <p>IF THE CORRECT DATE & TIME (IN GMT) ARE NOT SHOWN IN THE PREVIOUS STEP, THEN STOP THIS PROCEDURE AND PERFORM THE FOLLOWING STEPS:</p> <ol style="list-style-type: none"> 1) Execute Appendix B - HP DL360 BIOS Settings or Execute Appendix K- CONFIGURE THE HP DL380 (GEN8 & GEN9) SERVER CMOS CLOCK/BIOS SETTINGS 2) Restart Procedure 1 beginning with Step 1. <p>IF THE CORRECT DATE & TIME (IN GMT) ARE SHOWN IN THE PREVIOUS STEP, THEN CONTINUE ON TO STEP 4 OF THIS PROCEDURE.</p> </div>		
4. <input type="checkbox"/>	Verify that the TPD release is 7.0	<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>NOTE: This command should return no output on a healthy system. If any alarms are reported as SNMP traps, please stop and contact Accessing My Oracle Support (MOS) for the assistance.</i>

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

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p>Execute “syscheck” to verify the state of the server before Application install.</p>	<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 NOTE: The user should stop and resolve any errors returned from “syscheck” before continuing on to the next step.</pre>
<p>7.</p> <input type="checkbox"/>	<p>Execute verifyUpgrade command to verify health of the server before the application install.</p>	<pre>\$ sudo verifyUpgrade NOTE: This command should return no output on a healthy system. If any error are reported, please stop and contact Accessing My Oracle Support (MOS) for the assistance.</pre>
<p>8.</p> <input type="checkbox"/>	<p>Verify server hardware is DL360 or DL380 or DL390.</p>	<pre>\$ hardwareInfo grep Hardware Hardware ID: ProLiantDL360G6 - Or - Hardware ID: ProLiantDL380pGen8 - Or - Hardware ID: ProLiantDL380Gen9</pre>

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

Step	Procedure	Result
<p>9.</p> <input type="checkbox"/>	<p>Place the USB drive containing the SDS Application software into the server's USB port.</p>	 <p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p>  <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>10.</p> <input type="checkbox"/>	<p>Verify that the USB drive has been mounted under the /media directory.</p>	<pre>\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1</pre>
<p>11.</p> <input type="checkbox"/>	<p>Verify that the target release is present on the USB drive.</p>	<pre>\$ ls /media/sdb1/ SDS-7.1.0.0.0_71.9.0-x86_64.iso</pre>
<p>12.</p> <input type="checkbox"/>	<p>Copy the target release to the server's hard disk under the /var/TKLC/upgrade directory.</p>	<pre>\$ cp -p /media/sdb1/SDS-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>

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

Step	Procedure	Result
<p>14.</p> <input type="checkbox"/>	<p>Remove the USB drive from the server's front panel.</p>	<p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p> <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p> <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>15.</p> <input type="checkbox"/>	<p>Login to the "platcfg" utility.</p>	<pre>\$ sudo su - platcfg</pre>
<p>16.</p> <input type="checkbox"/>	<p>From the "platcfg" Main Menu...</p> <p>Select Maintenance then press the <ENTER> key</p>	<pre> Main Menu ----- Maintenance Diagnostics Server Configuration Security Remote Consoles Network Configuration NetBackup Configuration Exit </pre>

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

Step	Procedure	Result
<p>18.</p> <input type="checkbox"/>	<p>From the “platcfg” Main Menu...</p> <p>Select Initiate Upgrade then press the <ENTER> key</p>	 <pre> Upgrade Menu ----- Validate Media Early Upgrade Checks ■ Initiate Upgrade ■ Non Tekelec RPM Management ■ Exit </pre>
<p>19.</p> <input type="checkbox"/>	<p>Verify that SDS application release shown matches the target release.</p> <p>Press the <ENTER> key to start the SDS application install</p>	 <pre> Choose Upgrade Media Menu ----- SDS-7.1.0.0.0 71.1.0-x86 64.iso - 7.1.0.0.0 71.1.0 Exit </pre>
<p>20.</p> <input type="checkbox"/>	<p>Output similar to that shown on the right may be observed as the SDS application install progresses.</p>	<pre> Determining if we should upgrade... Install product is 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>
<p>21.</p> <input type="checkbox"/>	<p>Output similar to that shown on the right may be observed at the completion of the Application install.</p>	<pre> Executing da01_sds_app_enable.sh... da01_sds_app_enable.sh: 'Nothing to do if fresh install.' Applications Enabled. Running /usr/TRLC/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>
<p>22.</p> <input type="checkbox"/>	<p>After the server has completed reboot, log into the HP server as the “admusr” user.</p>	<pre> login: admusr Using keyboard-interactive authentication. Password: <admusr_password> </pre>

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

Step	Procedure	Result
<p>23.</p> <input type="checkbox"/>	<p>Verify that the output contains the line shown to the right indicating a successful installation of SDS application software.</p>	<pre>\$ grep COMPLETE /var/TKLC/log/upgrade/upgrade.log 1321462900:: UPGRADE IS COMPLETE</pre>
<p>24.</p> <input type="checkbox"/>	<p>Execute verifyUpgrade command to verify status of upgrade.</p> <p>Verify that SDS application release shown matches the target release.</p> <p>NOTE: For only 7.2 If restoretemp directory is not created then create using command.</p>	<pre>\$ sudo verifyUpgrade</pre> <p><i>NOTE: This command should return no output on a healthy system. If any error are reported, please stop and contact Accessing My Oracle Support (MOS) for the assistance</i></p> <pre>\$ rpm -qa grep sds TKLCSds-7.1.0-7.1_71.9.0.x86_64</pre> <p>NOTE: For only 7.2 If restoretemp directory is not created then create using following command For both upgrade and DB restore.</p> <pre>\$ sudo mkdir -p /var/TKLC/db/filemgmt/restoretemp \$ sudo chown awadmin:awadm /var/TKLC/db/filemgmt/restoretemp \$ sudo chmod 775 /var/TKLC/db/filemgmt/restoretemp.</pre>
<p>25.</p> <input type="checkbox"/>	<p>Accept upgrade to the Application Software.</p>	<pre>\$ sudo /var/TKLC/backout/accept</pre> <p>Called with options: --accept Loading Upgrade::Backout::RPM Accepting Upgrade Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/var/lib/prelink/force' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository</p>
<p>26.</p> <input type="checkbox"/>	<p>Put the server in trusted time mode</p>	<pre>\$ tw.setdate -trusted</pre> <p>Current time: 10/22/2014 16:25:07.869</p>

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"> Repeat this procedure for each RMS server installed in the cabinet before continuing on to the next procedure. (e.g. SDS NOAM A, SDS NOAM B B, Query Server) 	
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

5.0 CONFIGURATION PROCEDURES

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

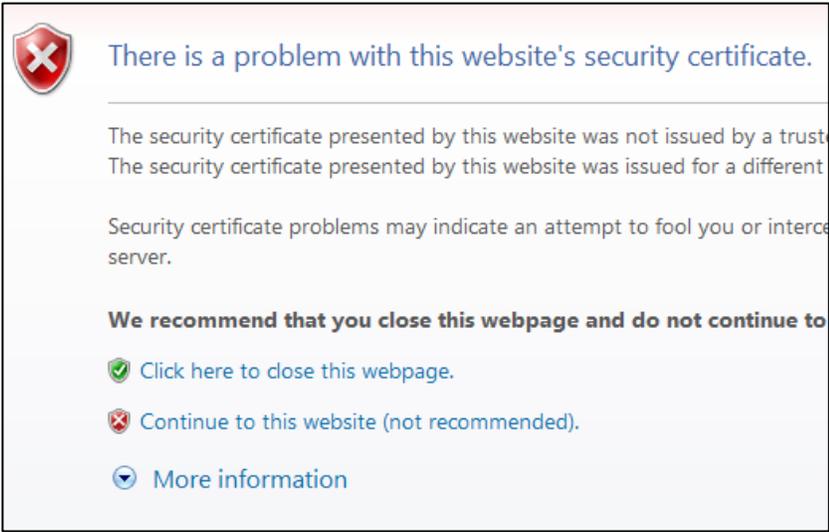
Assumptions:

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

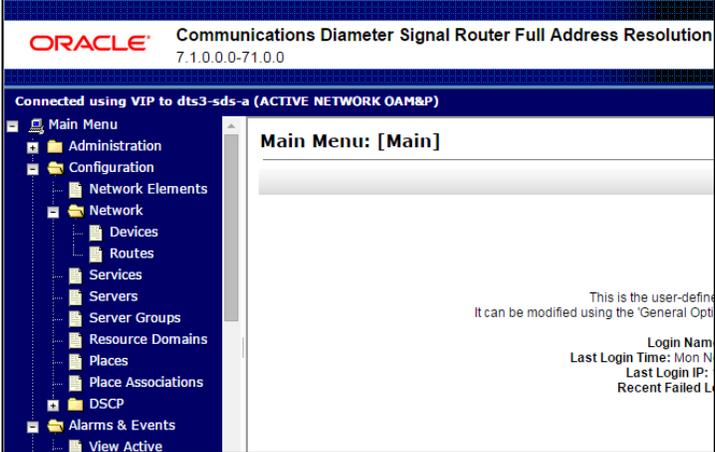
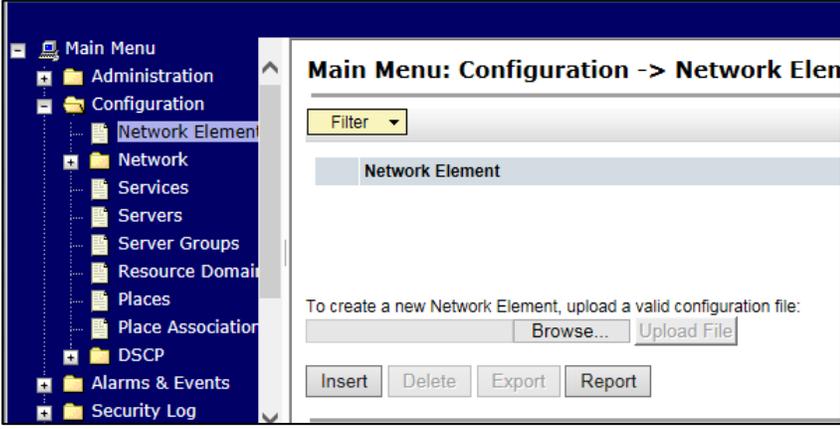
This procedure requires that the user connects to the SDS GUI prior to configuring the first SDS server. This can be done either by one of two procedures:

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

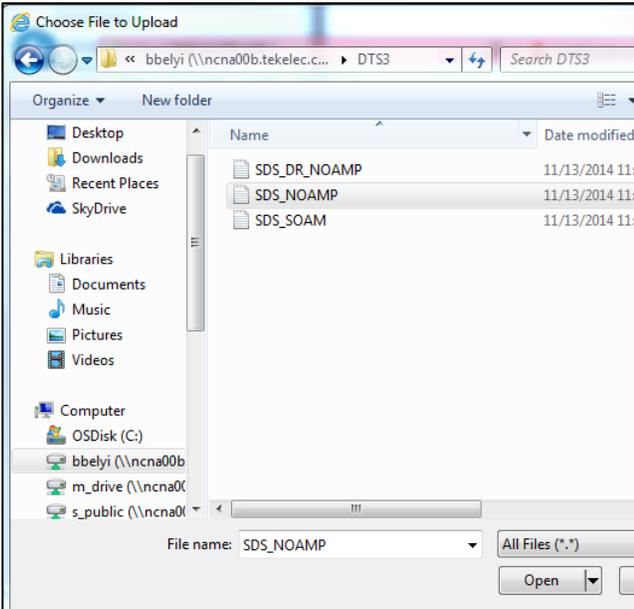
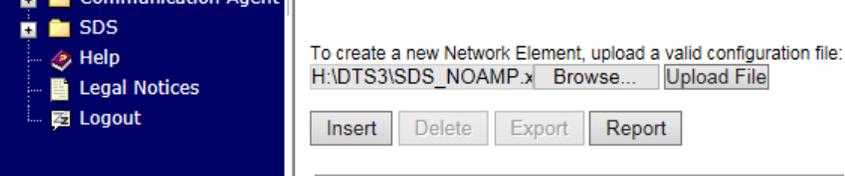
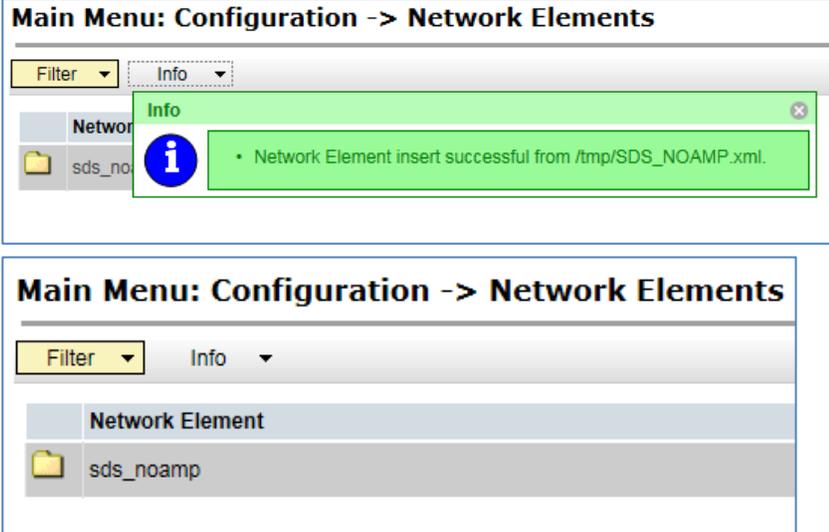
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

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

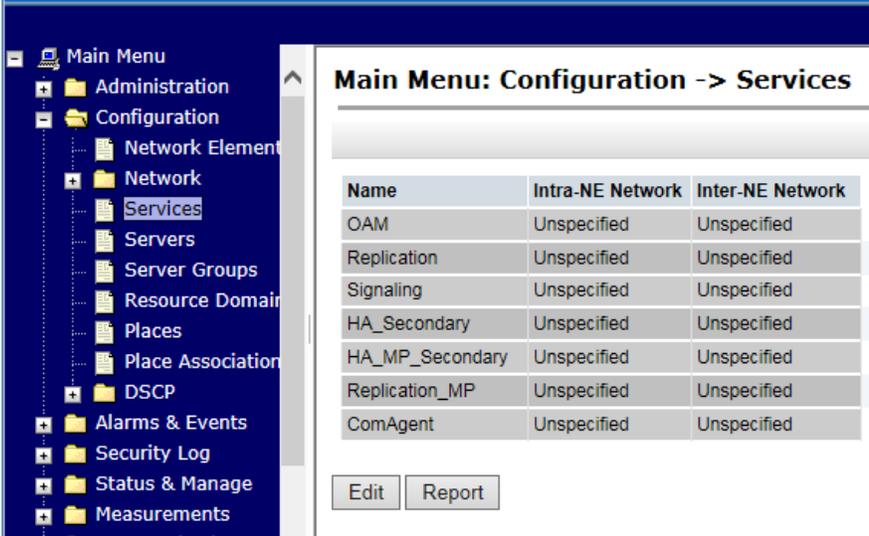
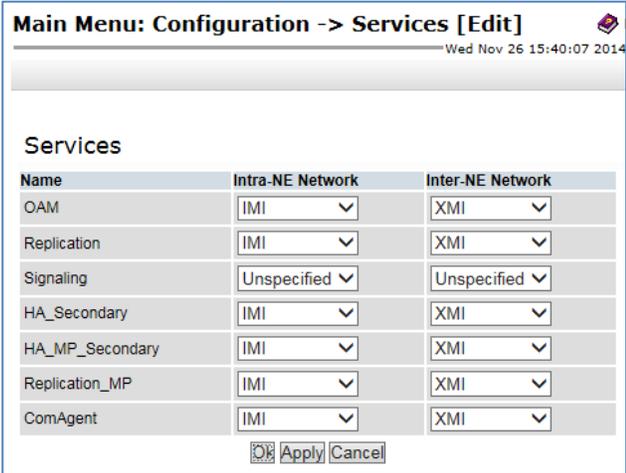
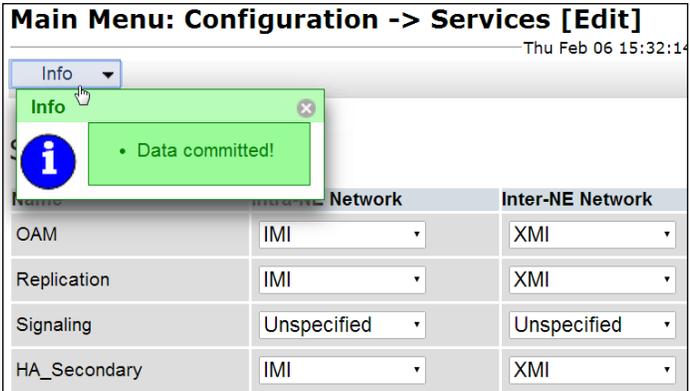
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

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

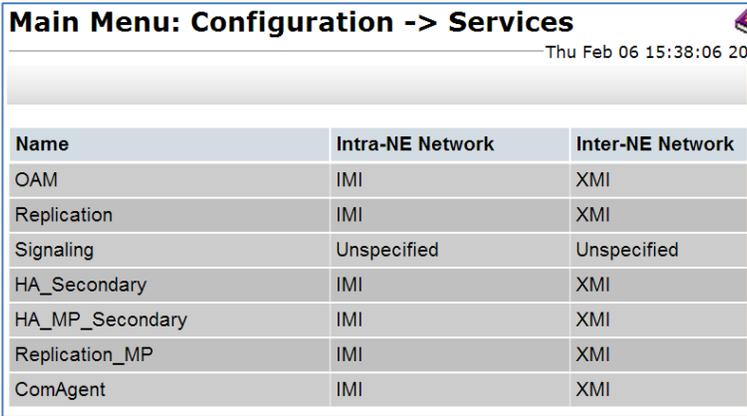
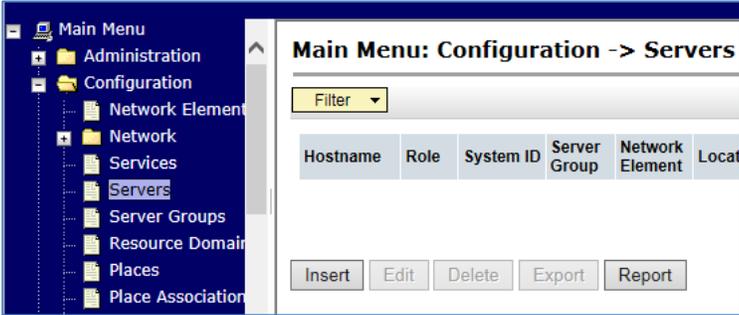
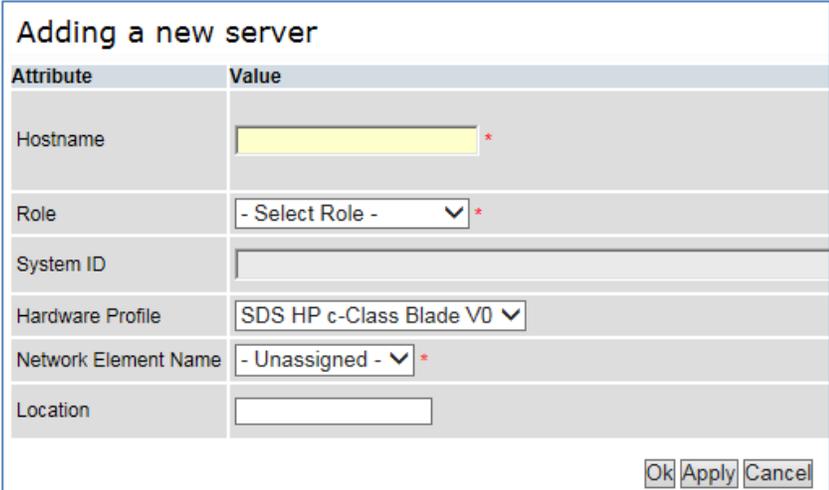
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>Note: This step assumes that the xml files were previously prepared, as described in Appendix F.</p> <p>1) Select the location containing the site .xml file.</p> <p>2) Select the .xml file and click the “Open” dialogue button.</p>	
<p>7.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>Select the “Upload File” dialogue button (bottom left corner of screen).</p>	
<p>8.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>If the values in the .xml file pass validation rules, the user will receive a banner information message showing that the data has been successfully validated and committed to the DB.</p> <p>NOTE: You may have to left mouse click the “Info” banner option in order to see the banner output.</p>	

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

Step	Procedure	Result
<p>9.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>1) Select...</p> <p>Main Menu → Configuration → Services ...as shown on the right.</p> <p>2) The user will be presented with the “Services” configuration screen as shown on the right.</p> <p>3) Select the “Edit” dialogue button.</p>	
<p>10.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>1) With the exception of “Signaling” which is left “Unspecified”, set other services values so that all Intra-NE Network traffic is directed across IMI and all Inter-NE Network traffic is across XMI.</p> <p>2) Select the “Apply” dialogue button.</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>1) The user should now click the “Info” tab to be presented with a banner information message stating “Data committed”</p> <p>2) Select the “Ok” dialogue button.</p>	

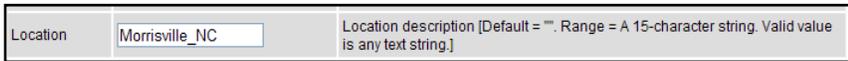
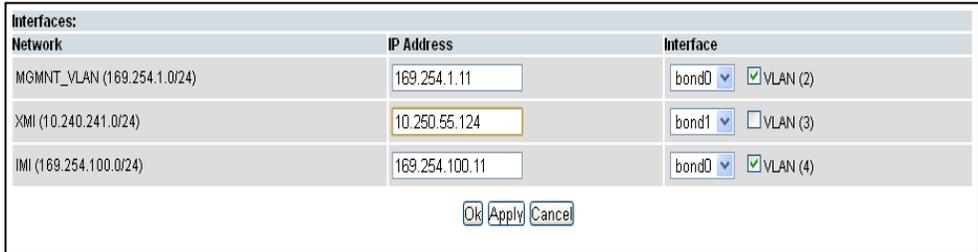
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																								
<p>12.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>The user will be presented with the “Services” configuration screen as shown on the right</p>	 <table border="1"> <thead> <tr> <th>Name</th> <th>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>SDS SDS NOAM A:</p> <p>1) Select... Main Menu → Configuration → Servers ...as shown on the right.</p> <p>2) Select the “Insert” dialogue button.</p>	 <p>Note: This step thru the last step of this procedure need to be done for both servers SDS SDS NOAM A and SDS SDS NOAM B.</p>																								
<p>14.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>The user is now presented with the “Adding a new server” configuration screen.</p>																									

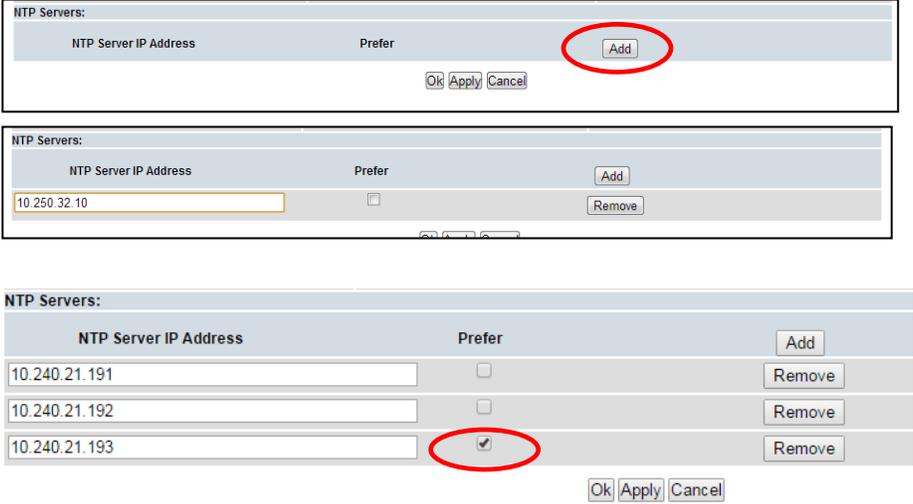
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result															
<p>15.</p> <input type="checkbox"/>	<p>SDS SDS NOAM A:</p> <p>Input the assigned “hostname” for the SDS SDS NOAM (A or B).</p>	<table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>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.]															
<p>16.</p> <input type="checkbox"/>	<p>SDS SDS NOAM A:</p> <p>Select “NETWORK OAM&P” for the server “Role” from the pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Role</td> <td>- Select Role - *</td> <td>Select the function of the server</td> </tr> <tr> <td>Hardware Profile</td> <td>- Select Role -</td> <td>Hardware profile of the server</td> </tr> <tr> <td>Network Element Name</td> <td>SYSTEM OAM MP</td> <td>Select the network element</td> </tr> <tr> <td>Location</td> <td>QUERY SERVER</td> <td>Location description [Default = "". Range = A 15</td> </tr> </tbody> </table>	Role	- Select Role - *	Select the function of the server	Hardware Profile	- Select Role -	Hardware profile of the server	Network Element Name	SYSTEM OAM MP	Select the network element	Location	QUERY SERVER	Location description [Default = "". Range = A 15			
Role	- Select Role - *	Select the function of the server															
Hardware Profile	- Select Role -	Hardware profile of the server															
Network Element Name	SYSTEM OAM MP	Select the network element															
Location	QUERY SERVER	Location description [Default = "". Range = A 15															
<p>17.</p> <input type="checkbox"/>	<p>SDS SDS NOAM A:</p> <p>Input the assigned hostname again as the “System ID” for the SDS SDS NOAM (A or B).</p>	<table border="1"> <tbody> <tr> <td>System ID</td> <td>sds-mrsvnc-a</td> <td>System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]</td> </tr> </tbody> </table>	System ID	sds-mrsvnc-a	System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]												
System ID	sds-mrsvnc-a	System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]															
<p>18.</p> <input type="checkbox"/>	<p>SDS SDS NOAM A:</p> <p>For Gen6 & Gen8: Select “SDS HP Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p> <p>For Gen9: Select “SDS HP Gen9 Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p>	<p>For Gen6 & Gen8 select “SDS HP Rack Mount” from the Hardware Profile pull-down menu.</p> <table border="1"> <tbody> <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> </tbody> </table> <p>Ok Apply Cancel</p> <p>For Gen9 Select “SDS HP Gen9 Rack Mount” from the Hardware Profile pull-down menu.</p> <table border="1"> <tbody> <tr> <td>Hardware Profile</td> <td>3-pair Un-Bonded HP c-Class Blade</td> </tr> <tr> <td>Network Element Name</td> <td>3-pair Un-Bonded HP c-Class Blade BL620 HP c-Class Blade</td> </tr> <tr> <td>Location</td> <td>SDS HP Gen9 Rack Mount</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.]	Hardware Profile	3-pair Un-Bonded HP c-Class Blade	Network Element Name	3-pair Un-Bonded HP c-Class Blade BL620 HP c-Class Blade	Location	SDS HP Gen9 Rack Mount
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.]															
Hardware Profile	3-pair Un-Bonded HP c-Class Blade																
Network Element Name	3-pair Un-Bonded HP c-Class Blade BL620 HP c-Class Blade																
Location	SDS HP Gen9 Rack Mount																

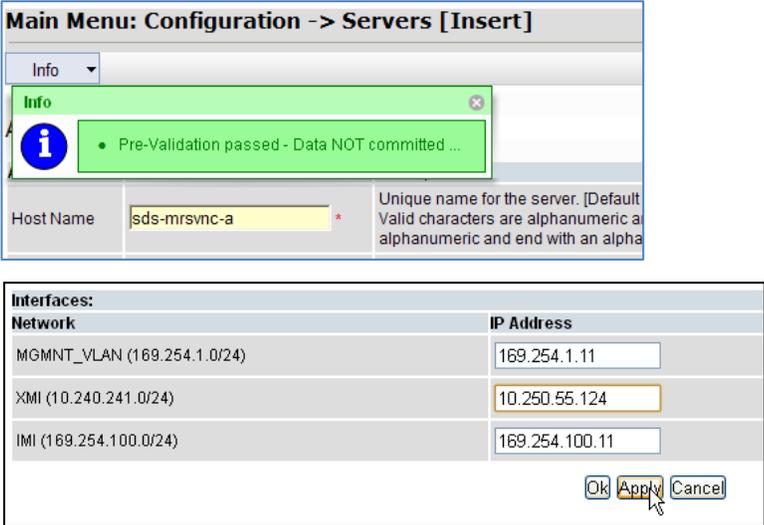
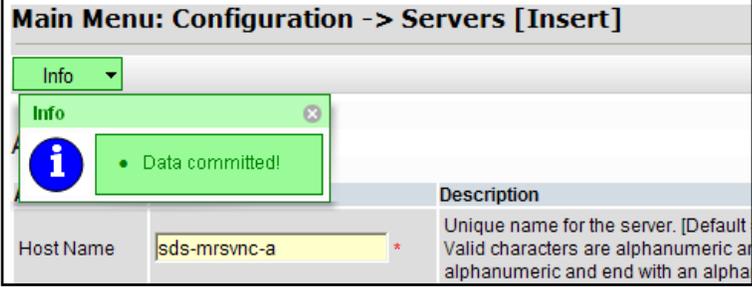
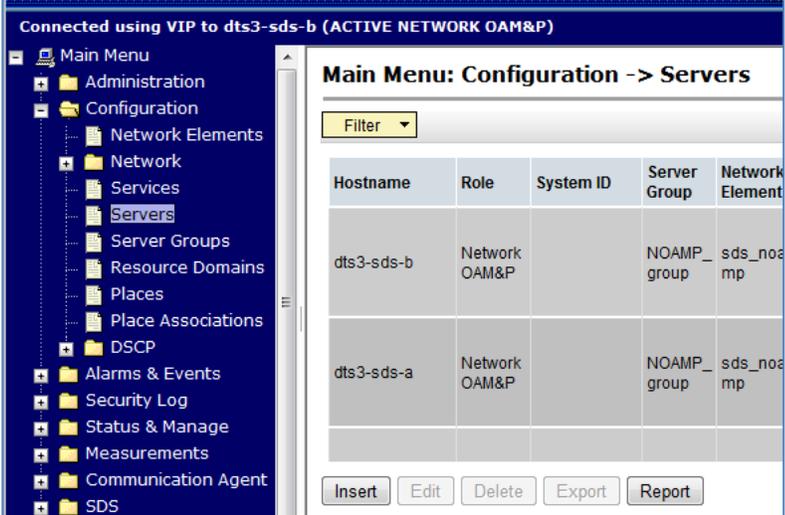
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result																					
19. <input type="checkbox"/>	<p>SDS SDS NOAM A:</p> <p>Select the Network Element Name for the SDS from the pull-down menu.</p>																						
20. <input type="checkbox"/>	<p>SDS SDS NOAM A:</p> <p>Enter the site location.</p> <p>NOTE: Location is an optional field.</p>																						
21. <input type="checkbox"/>	<p>SDS SDS NOAM A:</p> <p>1) Enter the MGMNT_VLAN IP address for the SDS Server.</p> <p>2) Set the MGMNT_VLAN Interface to “bond0” and “check” the VLAN checkbox.</p> <p>3) Enter the IMI IP address for the SDS Server.</p> <p>4) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.</p>	 <table border="1"> <thead> <tr> <th>SDS Server (Primary NOAM)</th> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS-A</td> <td>MGMNT_VLAN</td> <td>169.254.1.11</td> <td rowspan="2">bond0</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.11</td> <td><input type="checkbox"/></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><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.12</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>NOTE_1: These IP addresses are based on the info in the NAPD and the Network Element Config file</p> <p>NOTE_2: The MGMT_VLAN should only be present when 4948E-F AggregationSwitches are deployed with SDS NOAM / Query Server RMS. If the MGMT_VLAN is not present, the IMI network values shown above still apply.</p>	SDS Server (Primary NOAM)	Network	IP Address	Interface	VLAN Checkbox	SDS-A	MGMNT_VLAN	169.254.1.11	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.11	<input type="checkbox"/>	SDS-B	MGMNT_VLAN	169.254.1.12	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.12	<input type="checkbox"/>
SDS Server (Primary NOAM)	Network	IP Address	Interface	VLAN Checkbox																			
SDS-A	MGMNT_VLAN	169.254.1.11	bond0	<input checked="" type="checkbox"/>																			
	IMI	169.254.100.11		<input type="checkbox"/>																			
SDS-B	MGMNT_VLAN	169.254.1.12	bond0	<input checked="" type="checkbox"/>																			
	IMI	169.254.100.12		<input type="checkbox"/>																			

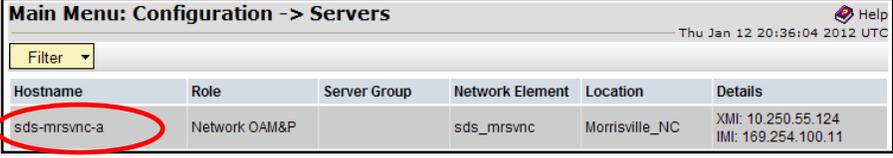
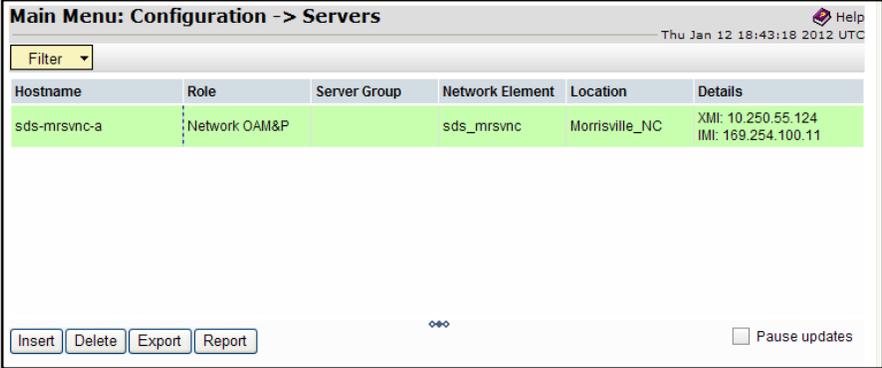
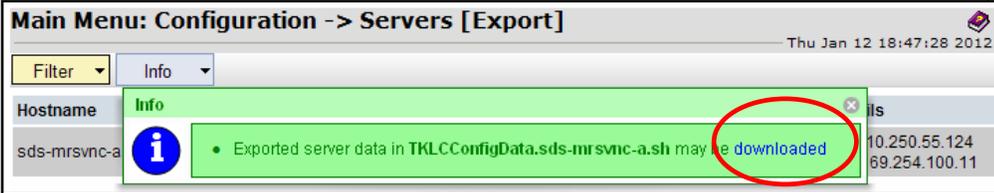
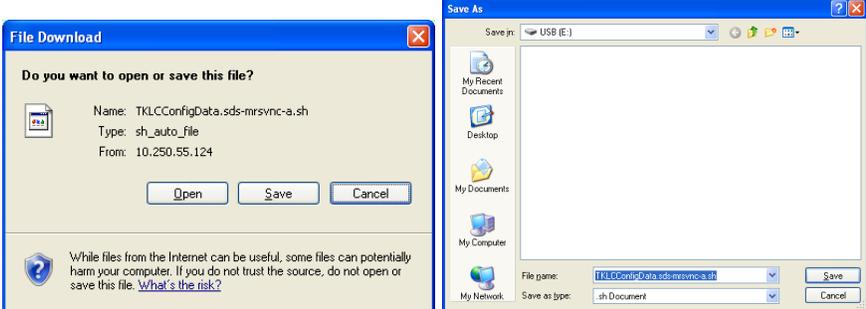
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result															
<p>22.</p> <input type="checkbox"/>	<p>1) Enter the customer assigned XMI IP address for the SDS Server.</p> <p>Layer 3 (No VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox.</p> <p>- OR -</p> <p>Layer 2 (VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>SDS Server (Primary NOAM)</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td>SDS NOAM Server (A or B)</td> <td>XMI</td> <td>No</td> <td>bond1</td> <td>✗</td> </tr> <tr> <td></td> <td></td> <td>Yes</td> <td>bond0</td> <td>✓</td> </tr> </tbody> </table> <p>!!! CAUTION !!!</p> <p><i>It is crucial that the correct network configuration be selected in Steps 21 & 22 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart SDS instalation procedures over from the beginning.</i></p>	SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	SDS NOAM Server (A or B)	XMI	No	bond1	✗			Yes	bond0	✓
SDS Server (Primary NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox													
SDS NOAM Server (A or B)	XMI	No	bond1	✗													
		Yes	bond0	✓													
<p>23.</p> <input type="checkbox"/>	<p>SDS SDS NOAM A:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>	 <p>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 three IP addresses (10.240.21.191, 10.240.21.192, 10.240.21.193) with the 'Prefer' checkbox for the last one circled in red.</p>															

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

Step	Procedure	Result															
<p>24.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p>	 <p>Main Menu: Configuration -> Servers [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Pre-Validation passed - Data NOT committed ... <p>Host Name: sds-mrsvnc-a</p> <p>Unique name for the server. [Default Valid characters are alphanumeric and end with an alpha]</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> <p>Ok Apply Cancel</p>	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>SDS SDS NOAM A:</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>Main Menu: Configuration -> Servers [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Data committed! <p>Host Name: sds-mrsvnc-a</p> <p>Unique name for the server. [Default Valid characters are alphanumeric and end with an alpha]</p>															
<p>26.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&P)</p> <ul style="list-style-type: none"> Main Menu <ul style="list-style-type: none"> Administration Configuration <ul style="list-style-type: none"> Network Elements <ul style="list-style-type: none"> Network Services Servers Server Groups Resource Domains Places Place Associations DSCP Alarms & Events Security Log Status & Manage Measurements Communication Agent SDS <p>Main Menu: Configuration -> Servers</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&P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&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 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result												
<p>27.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>The “Configuration → Servers” screen should now show the newly added SDS Server in the list.</p>	 <p>Main Menu: Configuration -> Servers</p> <p>Thu Jan 12 20:36:04 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&P</td> <td></td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XML: 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	XML: 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	XML: 10.250.55.124 IMI: 169.254.100.11									
<p>28.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>1) Use the cursor to select the SDS Server entry added in Steps 13 - 25.</p> <p>The row containing the desired SDS Server should now be highlighted in GREEN.</p> <p>2) Select the “Export” dialogue button.</p>	 <p>Main Menu: Configuration -> Servers</p> <p>Thu Jan 12 18:43:18 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&P</td> <td></td> <td>sds_mrsvnc</td> <td>Morrisville_NC</td> <td>XML: 10.250.55.124 IMI: 169.254.100.11</td> </tr> </tbody> </table> <p>Buttons: Insert, Delete, Export, Report</p> <p>Pause updates: <input type="checkbox"/></p>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a	Network OAM&P		sds_mrsvnc	Morrisville_NC	XML: 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	XML: 10.250.55.124 IMI: 169.254.100.11									
<p>29.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>The user will receive a banner information message showing a download link for the SDS Server configuration data.</p> <p>Click on the word “downloaded” to download and save the configuration file.</p>	 <p>Main Menu: Configuration -> Servers [Export]</p> <p>Thu Jan 12 18:47:28 2012 UTC</p> <p>Info banner: Exported server data in TKLCConfigData.sds-mrsvnc-a.sh may be downloaded</p>												
<p>30.</p> <p><input type="checkbox"/></p>	<p>SDS SDS NOAM A:</p> <p>1) Click the “Save” dialogue button.</p> <p>2) Save the SDS Server configuration file to a USB flash drive.</p>	 <p>File Download</p> <p>Do you want to open or save this file?</p> <p>Name: TKLCConfigData.sds-mrsvnc-a.sh Type: sh_auto_file From: 10.250.55.124</p> <p>Buttons: Open, Save, Cancel</p> <p>Save As</p> <p>Save in: USB (E:)</p> <p>File name: TKLCConfigData.sds-mrsvnc-a.sh</p> <p>Save as type: sh Document</p> <p>Buttons: Save, Cancel</p>												

Note: You may be required to click the **Info** tab to display the Info banner shown here.

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

Step	Procedure	Result
<p>31.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Access the server console.</p>	<p>Connect to the SDS NOAM-A and SDS NOAM-B console using one of the access methods described in Section 2.3.</p>
<p>32.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the “admusr” user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>
<p>33.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of SDS Server.</p>	<div style="display: flex; flex-direction: column; align-items: center;">  <p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p>  <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p> </div>
<p>34.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Output similar to that shown on the right will appear as the USB flash drive is inserted into the SDS Server front USB port.</p>	<pre>\$ sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through <ENTER></pre> <p>NOTE: Press the <ENTER> key to return to the command prompt.</p>

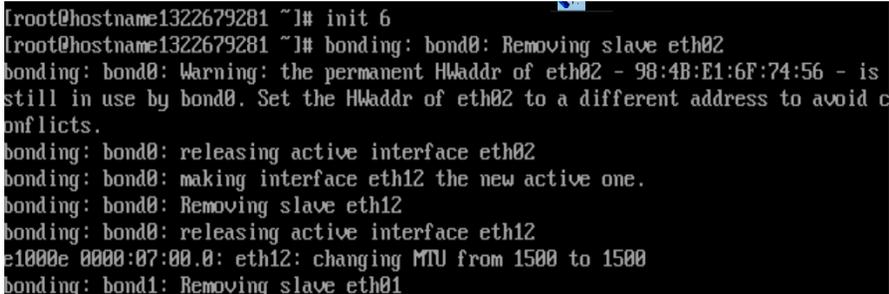
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>35.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Verify that the USB flash drive's partition has been mounted by the OS: Search df for the device named in the previous step's output.</p>	<pre>\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1</pre>
<p>36.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Copy the configuration file to the SDS server</p> <p>NOTE: This step can be skipped for SDS Server A because the file should already exist.</p>	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.sds-mrsvnc-a.sh /var/TKLC/db/filemgmt/.</pre> <p>NOTE: If Appendix C 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>SDS Server NOAM A or B:</p> <p>NOTE: If Appendix C was used to create this interface, un-configure the interface.</p>	<pre>\$ sudo netAdm delete --device=eth02 Interface eth02 removed</pre>
<p>38.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Copy the server configuration file to the "/var/tmp" directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p>Example: TKLCConfigData<.server_hostname>.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>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
<p>39.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <pre>Broadcast message from admusr (Thu Dec 1 09:41:24 2011): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server.</pre> <p>NOTE: The user should be aware that the time to complete this step varies by server and may take 3 ...20 minutes to complete.</p>

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

Step	Procedure	Result
<p>40.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Remove the USB flash drive from the USB port on the front panel of the server.</p> <p>CAUTION: <i>It is important that the USB flash drive be REMOVED from the server before continuing on to the next step.</i></p>	 <p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p>  <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>41.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Ignore the output shown and press the <ENTER> key to return to the command prompt.</p>	<pre>Broadcast message from admusr (Thu Dec 1 09:41:24 2011): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server. <ENTER></pre>
<p>42.</p>	<p>SDS Server NOAM A or 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>43.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>If the desired Time Zone was not presented in the previous step...</p> <p>Configure the Time Zone.</p> <p>Otherwise, skip to the next step.</p>	<p>Example: <code>\$ sudo set_ini_tz.pl <time_zone></code></p> <p>NOTE: <i>The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites. The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix H for a list of valid time zones.</i></p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>

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

Step	Procedure	Result
<p>44.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Initiate a reboot of the SDS Server.</p>	<pre>\$ sudo init 6</pre>
<p>45.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Wait ~9 minutes</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	 <pre>[root@hostname1322679281 ~]# init 6 [root@hostname1322679281 ~]# bonding: bond0: Removing slave eth02 bonding: bond0: Warning: the permanent HWaddr of eth02 - 98:4B:E1:6F:74:56 - is still in use by bond0. Set the HWaddr of eth02 to a different address to avoid c onflicts. bonding: bond0: releasing active interface eth02 bonding: bond0: making interface eth12 the new active one. bonding: bond0: Removing slave eth12 bonding: bond0: releasing active interface eth12 e1000e 0000:07:00.0: eth12: changing MTU from 1500 to 1500 bonding: bond1: Removing slave eth01</pre>
<p>46.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>After the server has completed reboot, log into the server as the “admusr” user.</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: <admusr_password></pre>
<p>47.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>1) Verify that the IMI IP address and the bond VLAN configuration input in Step 21 has been correctly applied.</p> <p>2) Verify that the XMI IP address and the bond configuration input in Step 22 has been correctly applied.</p> <p>NOTE: The server's XMI & IMI addresses can also be verified by reviewing the server configuration through the SDS GUI under [Main Menu → Configuration → Server] screen.</p>	<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>

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

Step	Procedure	Result
<p>48.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Use the “ntpq” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== *10.250.32.10 192.5.41.209 2 u 1 64 1 0.176 -0.446 0.053 10.250.32.51 192.5.41.209 2 u 2 64 1 0.174 -0.445 0.002</pre>
<div style="display: flex; align-items: center;">  <p>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</p> <ol style="list-style-type: none"> 1) Have the Customer IT group provide a network path from the SDS NOAM Server XMI IP to the assigned NTP Server IP addresses. 2) Once network connectivity is established to the configured NTP Servers, then restart this procedure beginning with STEP 48. </div>		
<p>49.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class system... OK Running modules in class proc... OK Running modules in class net... OK Running modules in class hardware... OK Running modules in class disk... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
<p>50.</p> <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>Exit to return to the login prompt.</p>	<pre>\$ exit</pre>
<p>51.</p> <input type="checkbox"/>	<ul style="list-style-type: none"> • Configure SDS Server B by repeating steps 13 - 50 of this procedure. 	
<div style="display: flex; align-items: center;">  <p>IF AGGREGATION SWITCHES ARE INSTALLED AND 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING PROCEDURES:</p> <ol style="list-style-type: none"> 1) APPENDIX E.1 2) APPENDIX E.2 (<i>Appendix E.2 references Appendix E.3 where applicable</i>). 3) APPENDIX E.4 </div>		

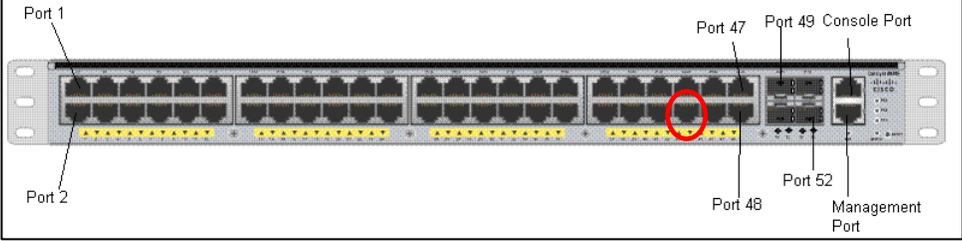
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>52.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>From SDS Server NOAM A, “ping” the IMI IP address configured for on SDS Server B.</p>	<pre>\$ ping -c 5 169.254.100.12 PING 169.254.100.12 (169.254.100.12) 56(84) bytes of data. 64 bytes from 169.254.100.12: icmp_seq=1 ttl=64 time=0.020 ms 64 bytes from 169.254.100.12: icmp_seq=2 ttl=64 time=0.026 ms 64 bytes from 169.254.100.12: icmp_seq=3 ttl=64 time=0.025 ms 64 bytes from 169.254.100.12: icmp_seq=4 ttl=64 time=0.025 ms 64 bytes from 169.254.100.12: icmp_seq=5 ttl=64 time=0.026 ms --- 169.254.100.12 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.020/0.024/0.026/0.005 ms</pre>
<p>53.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>From SDS Server NOAM A, “ping” the XMI IP address configured for on SDS Server B.</p>	<pre>\$ ping -c 5 10.250.55.125 PING 10.250.55.125 (10.250.55.125) 56(84) bytes of data. 64 bytes from 10.250.55.125: icmp_seq=1 ttl=64 time=0.166 ms 64 bytes from 10.250.55.125: icmp_seq=2 ttl=64 time=0.139 ms 64 bytes from 10.250.55.125: icmp_seq=3 ttl=64 time=0.176 ms 64 bytes from 10.250.55.125: icmp_seq=4 ttl=64 time=0.209 ms 64 bytes from 10.250.55.125: icmp_seq=5 ttl=64 time=0.179 ms --- 10.250.55.125 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.139/0.173/0.209/0.028 ms</pre>
<p>54.</p>	<p>SDS Server NOAM A:</p> <p>Use “ping” to verify that SDS Server NOAM A can reach the configured XMI Gateway address.</p>	<pre>\$ ping -c 5 10.250.55.1 PING 10.250.55.1 (10.250.55.1) 56(84) bytes of data. 64 bytes from 10.250.55.1: icmp_seq=1 ttl=64 time=0.166 ms 64 bytes from 10.250.55.1: icmp_seq=2 ttl=64 time=0.139 ms 64 bytes from 10.250.55.1: icmp_seq=3 ttl=64 time=0.176 ms 64 bytes from 10.250.55.1: icmp_seq=4 ttl=64 time=0.209 ms 64 bytes from 10.250.55.1: icmp_seq=5 ttl=64 time=0.179 ms --- 10.250.55.1 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 4000ms rtt min/avg/max/mdev = 0.139/0.173/0.209/0.028 ms</pre>

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

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

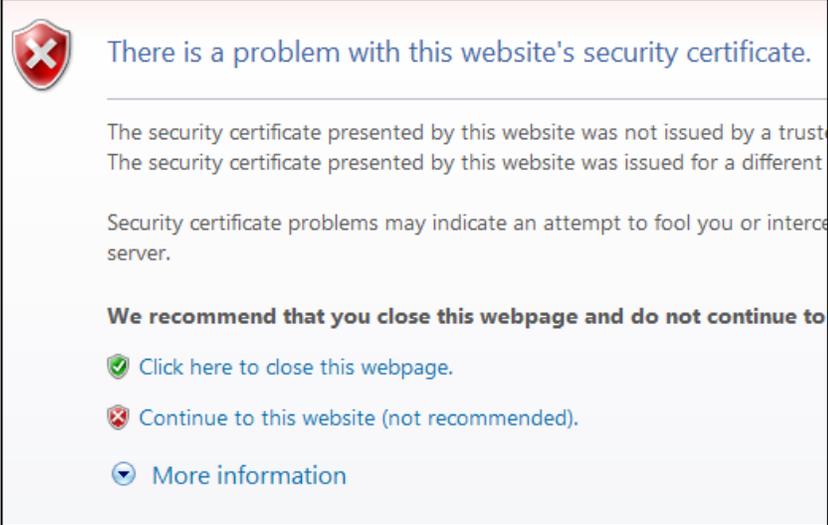
Procedure 2: Configuring SDS Servers A and B (1st SDS NOAM site only)

Step	Procedure	Result
<p>57.</p> <input type="checkbox"/>	<p>switch1A: Connect the laptop to Port 44 of switch1A (bottom switch).</p>	 <p>Figure 10 - Cisco 4948E-F Switch (Maintenance Access Port)</p>
<p>58.</p> <input type="checkbox"/>	<p>Laptop: Set a static IP address and netmask within the Management VLAN for the laptop's network interface card (169.254.1.100 is suggested).</p>	<ul style="list-style-type: none"> Reference Appendix D. Steps 7-8 if assistance is needed in modifying the laptop's network configuration.
<p>59.</p> <input type="checkbox"/>	<p>SDS Server NOAM A: Using SSH, login to Server NOAM A using its Management VLAN IP address 169.254.1.11</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: <admusr_password></pre>
<p>60.</p> <input type="checkbox"/>	<p>SDS Server NOAM A: Using the "netAdm" utility, add the eth14 interface.</p>	<pre>\$ sudo netAdm add --device=eth14 Interface eth14 added \$</pre>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

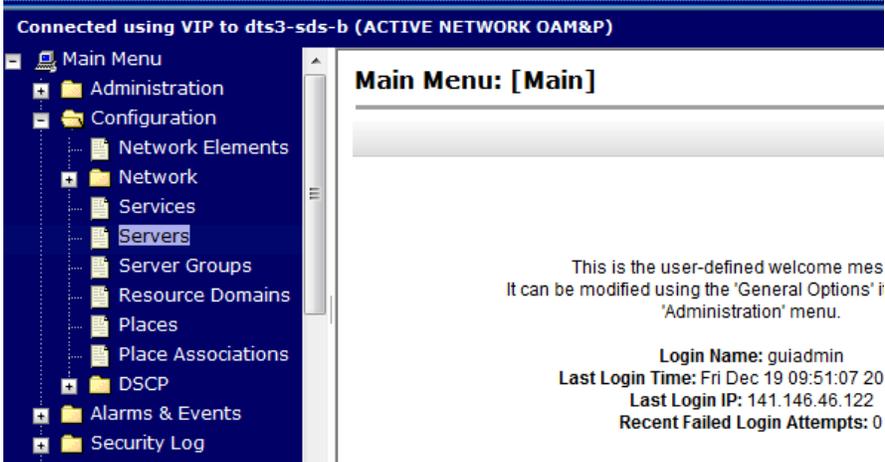
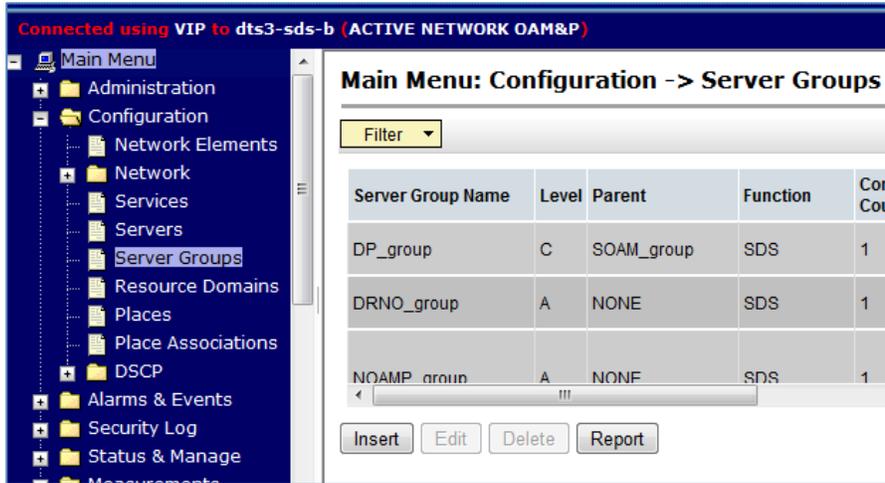
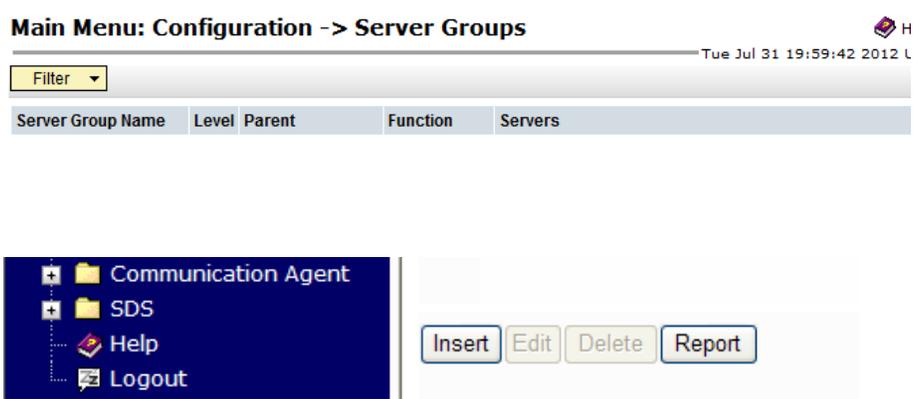
5.2 OAM Pairing (1st SDS NOAM site only)

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

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

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

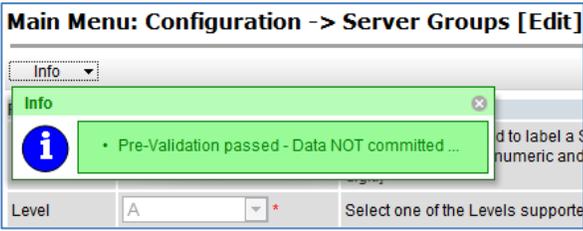
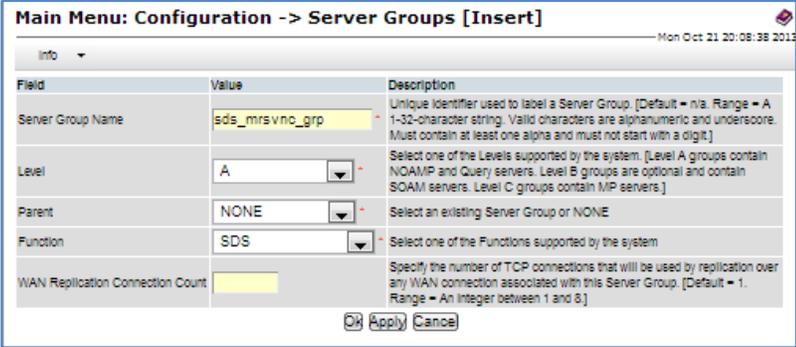
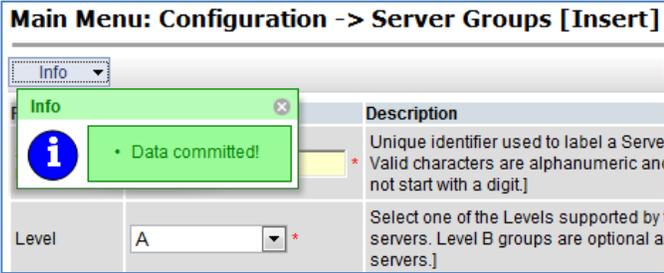
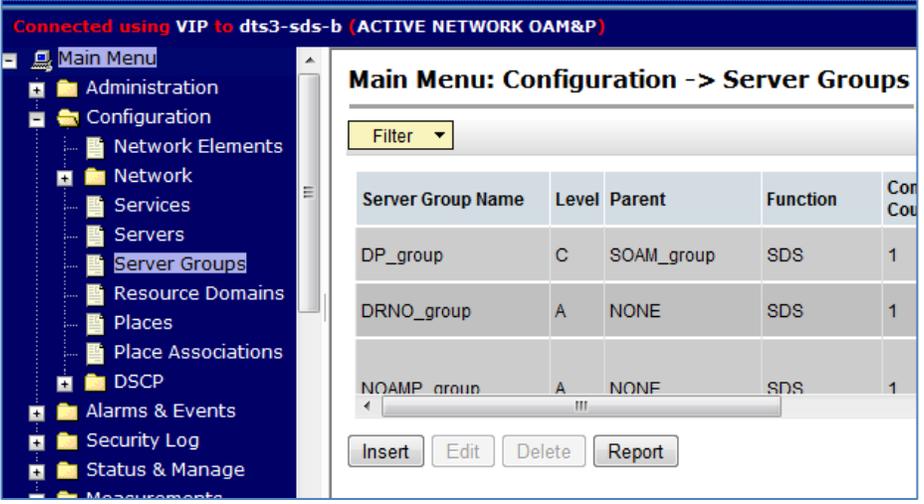
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>3.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</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>SDS Server NOAM A:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p>	 <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</p>

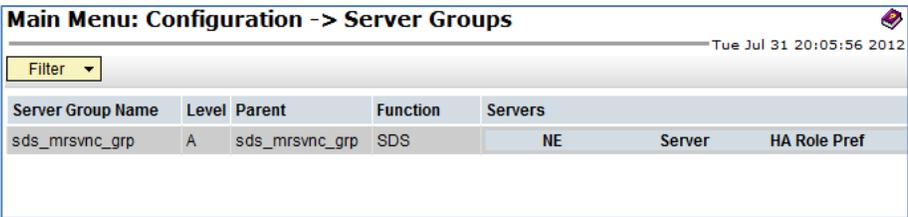
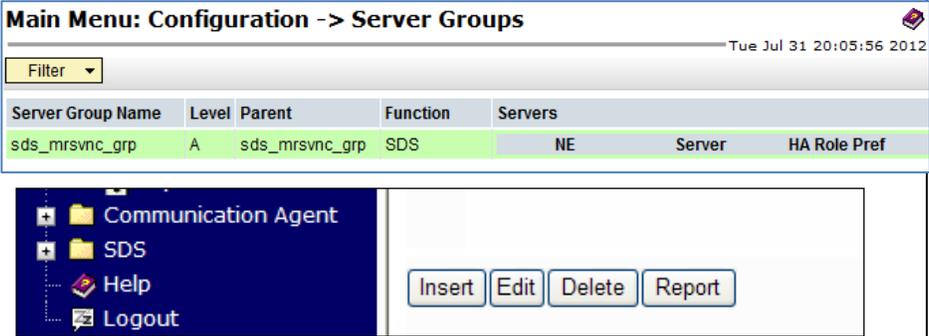
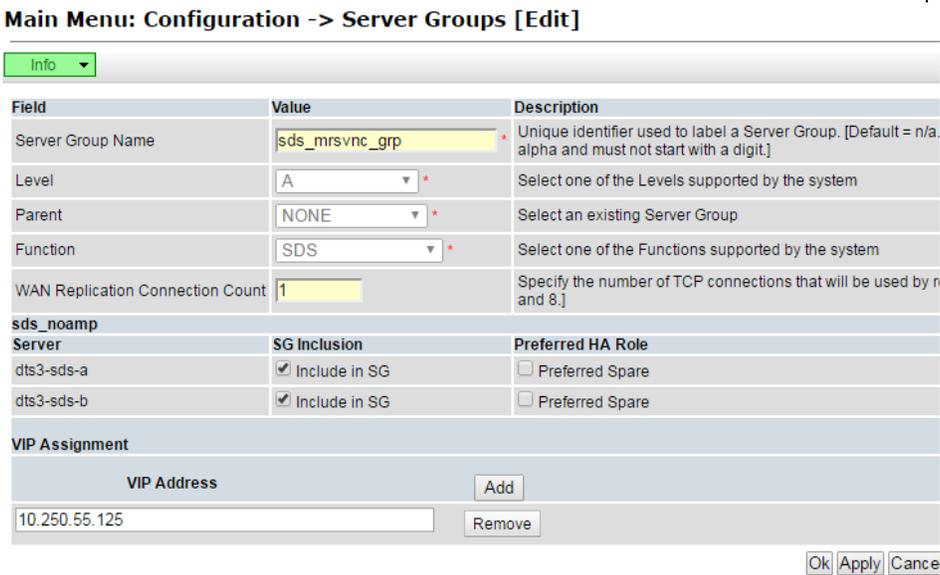
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																		
<p>6.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The user will be presented with the “Server Groups [Insert]” screen as shown on the right.</p> <p>NOTE: Leave the “WAN Replication Connection Count” blank (it will default to 1).</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name</td> <td><input type="text"/></td> <td>Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.</td> </tr> <tr> <td>Level</td> <td>- Select Level -</td> <td>Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.</td> </tr> <tr> <td>Parent</td> <td>- Select Parent -</td> <td>Select an existing Server Group or NONE.</td> </tr> <tr> <td>Function</td> <td>- Select Function -</td> <td>Select one of the Functions supported by the system.</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections associated with this Server Group.</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name	<input type="text"/>	Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.	Level	- Select Level -	Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.	Parent	- Select Parent -	Select an existing Server Group or NONE.	Function	- Select Function -	Select one of the Functions supported by the system.	WAN Replication Connection Count	1	Specify the number of TCP connections associated with this Server Group.
Field	Value	Description																		
Server Group Name	<input type="text"/>	Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.																		
Level	- Select Level -	Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.																		
Parent	- Select Parent -	Select an existing Server Group or NONE.																		
Function	- Select Function -	Select one of the Functions supported by the system.																		
WAN Replication Connection Count	1	Specify the number of TCP connections associated with this Server Group.																		
<p>7.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Input the Server Group Name.</p>	<p>Server Group Name: <input type="text" value="sds_mrsvnc_grp"/> *</p> <p>Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.</p>																		
<p>8.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Select “A” on the “Level” pull-down menu.</p>	<p>Level: - Select Level - * (A selected)</p> <p>Parent: - Select Parent - *</p> <p>Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.</p> <p>Select an existing Server Group or NONE.</p>																		
<p>9.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Select “None” on the “Parent” pull-down menu.</p>	<p>Parent: - Select Parent - * (NONE selected)</p> <p>Function: - Select Function - *</p> <p>Select an existing Server Group or NONE.</p> <p>Select one of the Functions supported by the system.</p>																		
<p>10.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Select “SDS” on the “Function” pull-down menu.</p>	<p>Function: - Select Function - * (SDS selected)</p> <p>Select one of the Functions supported by the system.</p>																		

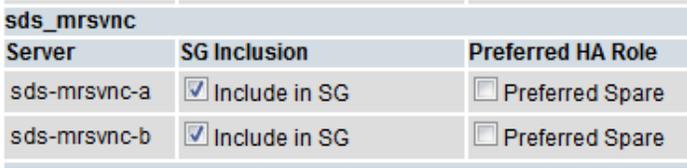
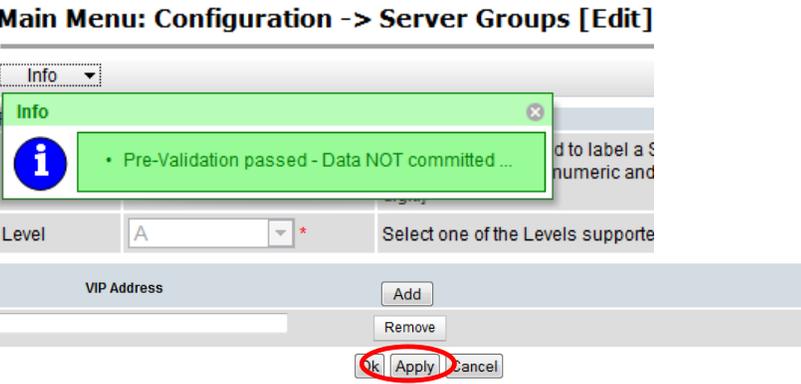
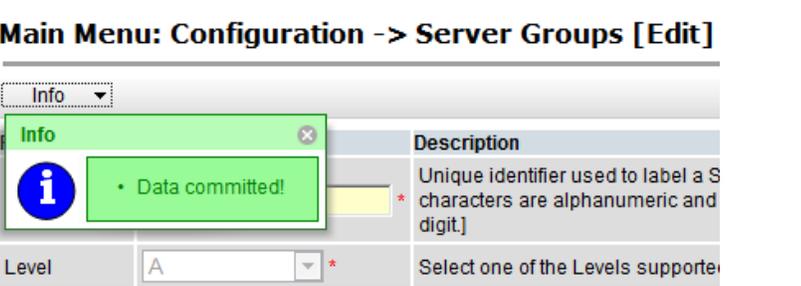
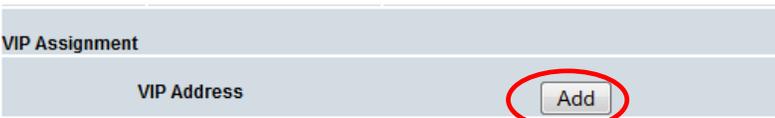
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																				
<p>11.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	 																				
<p>12.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>																					
<p>13.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Con 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	Con 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	Con Cou																		
DP_group	C	SOAM_group	SDS	1																		
DRNO_group	A	NONE	SDS	1																		
NOAMP_group	A	NONE	SDS	1																		

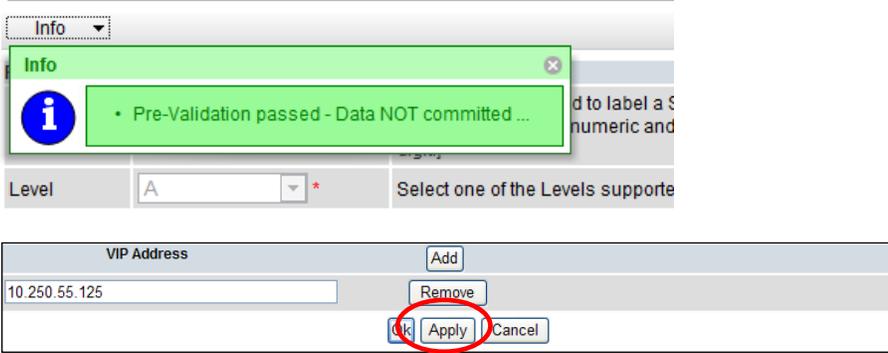
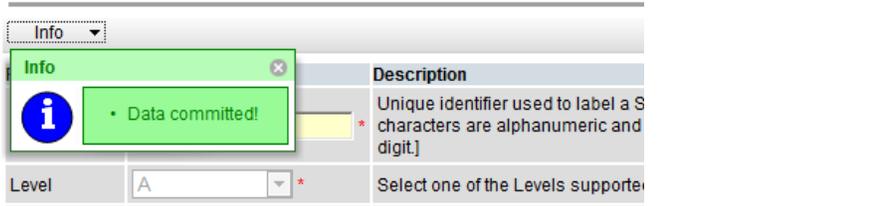
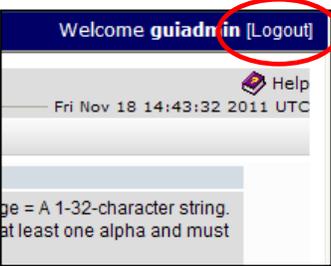
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>14.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The Server Group entry added in Steps 6 - 12 should now appear on the “Server Groups” configuration screen as shown on the right.</p>	
<p>15.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) Select the Server Group entry added in Steps 6 - 12. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>	 <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</p>
<p>16.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	

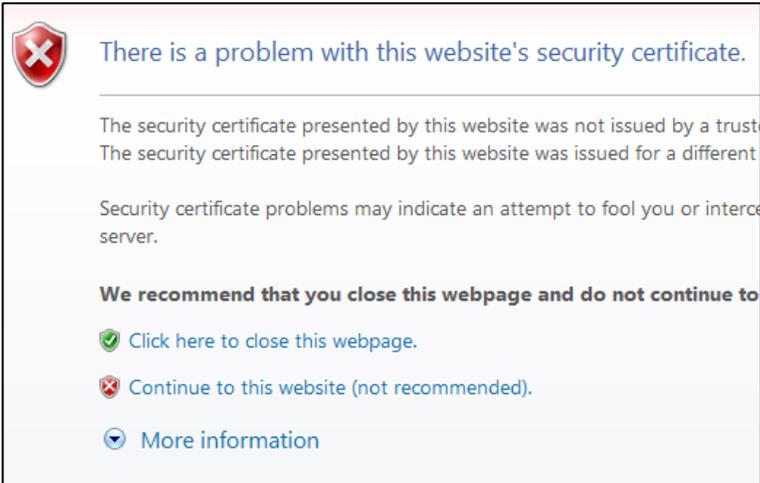
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result									
<p>17.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Select the “A” server and the “B” server from the list of “Servers” by clicking the check box next to their names.</p>	 <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td>sds-mrsvnc-b</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	sds-mrsvnc-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	sds-mrsvnc-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare
Server	SG Inclusion	Preferred HA Role									
sds-mrsvnc-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare									
sds-mrsvnc-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare									
<p>18.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Pre-Validation passed - Data NOT committed ... <p>Level: A</p> <p>VIP Address: [] [Add] [Remove]</p> <p>[Ok] [Apply] [Cancel]</p>									
<p>19.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Data committed! <p>Level: A</p> <p>Description: Unique identifier used to label a S characters are alphanumeric and digit.]</p>									
<p>20.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Click the “Add” dialogue button for the VIP Address.</p>	 <p>VIP Assignment</p> <p>VIP Address: [] [Add]</p>									
<p>21.</p> <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>Input the VIP Address</p>	 <p>VIP Address: [10.250.55.126] [Add] [Remove]</p>									

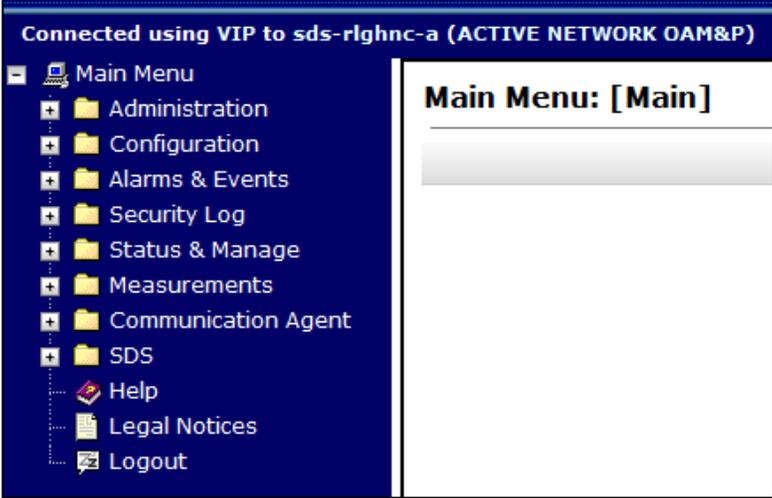
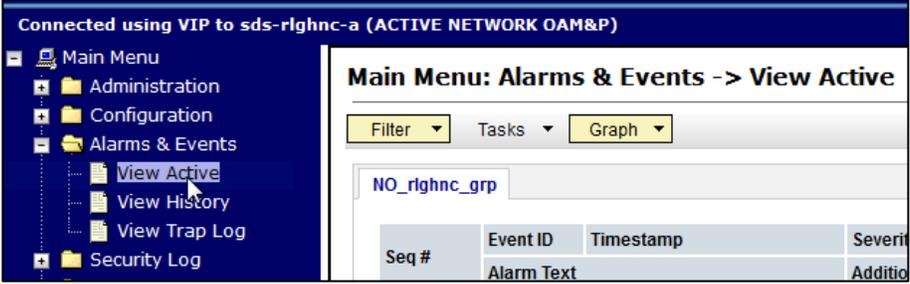
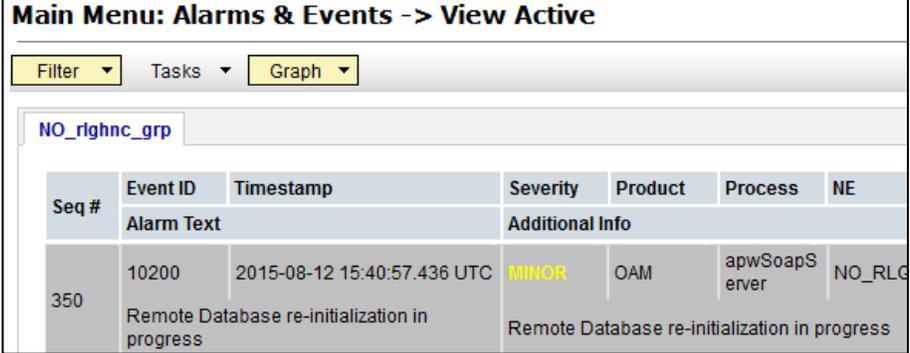
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>22.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	<p>Main Menu: Configuration -> Server Groups [Edit]</p> 
<p>23.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	<p>Main Menu: Configuration -> Server Groups [Edit]</p> 
<p>24.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>Click the “Logout” link on the OAM A server GUI.</p>	
<p>25.</p> <p><input type="checkbox"/></p>	<p>IMPORTANT:</p> <p>Wait at least 5 minutes before proceeding on to the next Step.</p>	<ul style="list-style-type: none"> • Now that the server(s) have been paired within a Server Group they must establish a master/slave relationship for High Availability (HA). It may take several minutes for this process to be completed. • Allow a minimum of 5 minutes before continuing to the next Step.

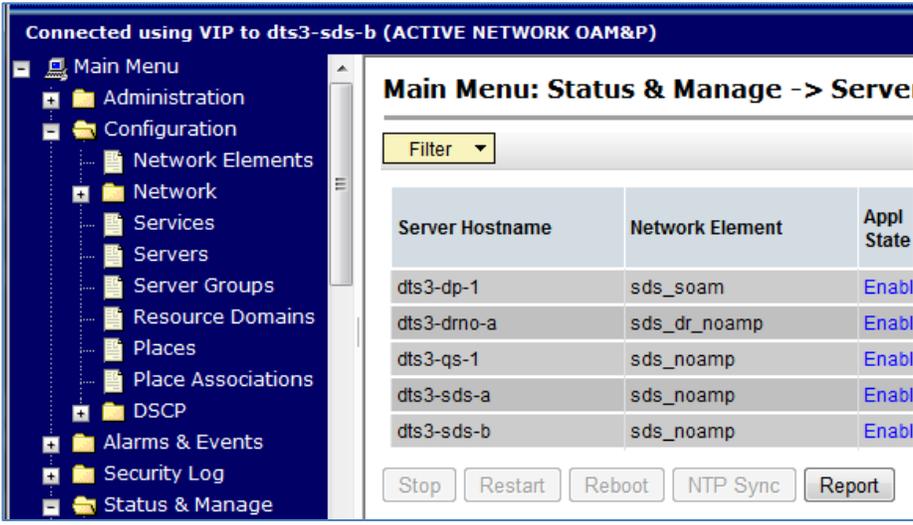
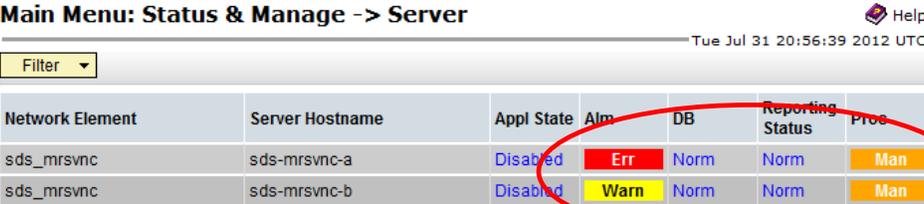
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>26.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) assigned in STEP 21 to the SDS Server Group</p>	
<p>27.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>	

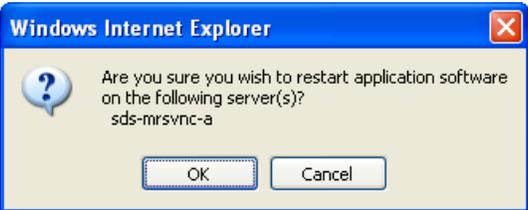
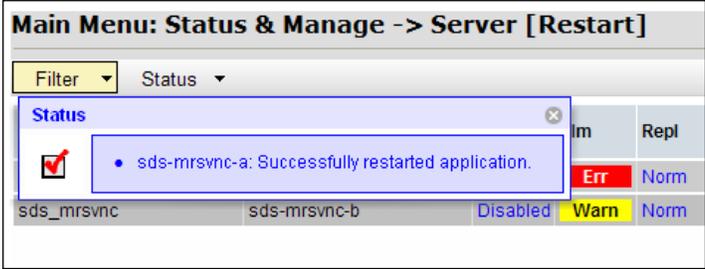
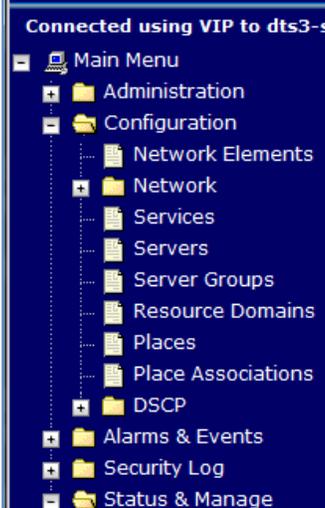
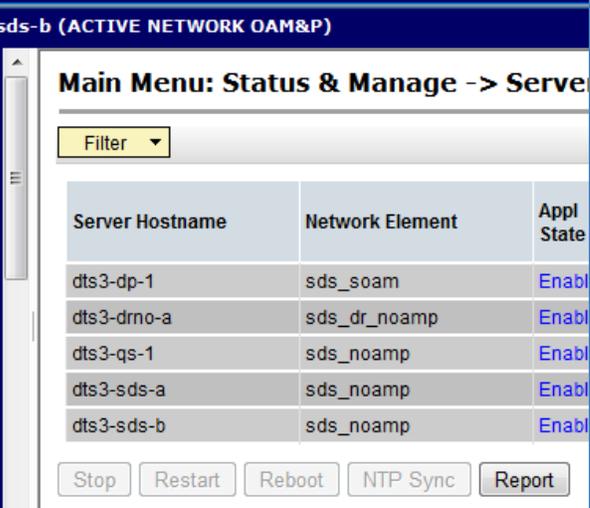
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>28.</p>	<p>SDS VIP: The user should be presented the SDS Main Menu as shown on the right.</p>	
<p>29.</p>	<p>SDS VIP: Select... Main Menu → Alarms & Events → View Active ...as shown on the right.</p>	
<p>30.</p> <p><input type="checkbox"/></p>	<p>SDS VIP: Verify whether or not Event ID 10200 (<i>Remote Database re-initialization in progress</i>) is present.</p>	
<div style="display: flex; align-items: center;">  <p>IF EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) IS PRESENT, DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED.</p> </div>		

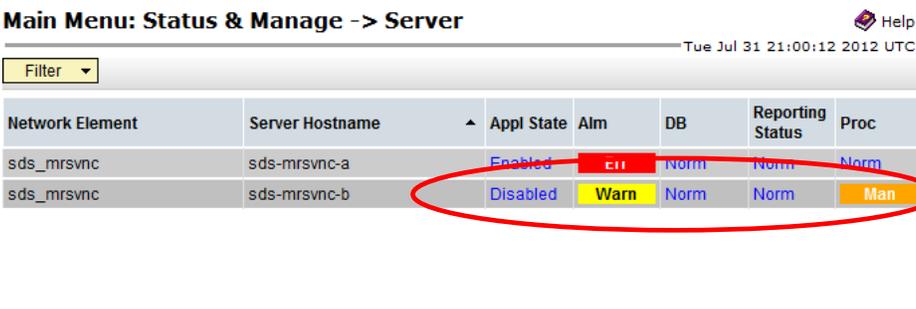
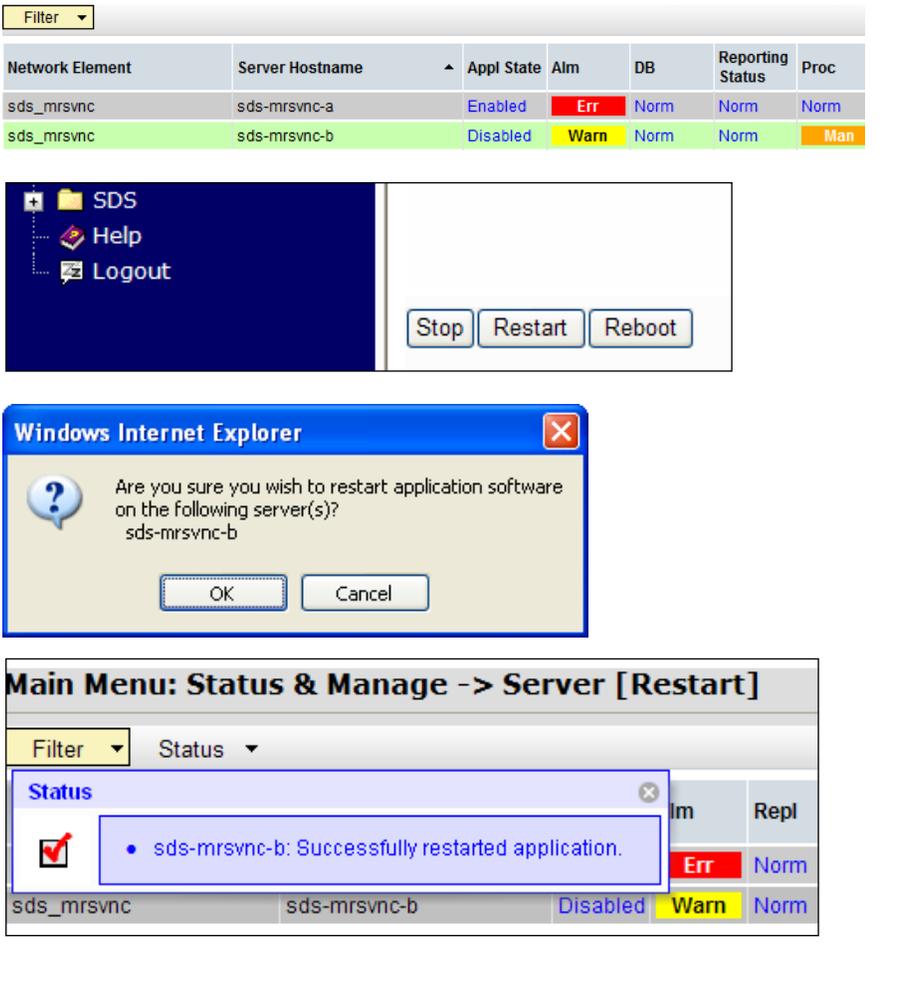
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																					
<p>31.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <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>32.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>1) The “A” and “B” SDS servers should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</p>	 <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>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</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	Disabled	Err	Norm	Norm	Man	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	Disabled	Err	Norm	Norm	Man																	
sds_mrsvnc	sds-mrsvnc-b	Disabled	Warn	Norm	Norm	Man																	

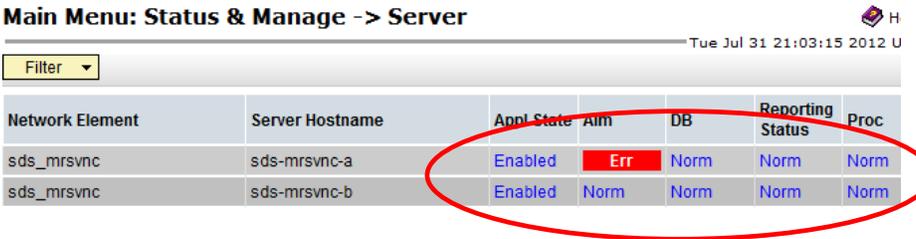
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																					
<p>33.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>1) Using the mouse, select SDS Server NOAM A. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SDS Server NOAM A stating: “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>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</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	Disabled	Err	Norm	Norm	Man	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	Disabled	Err	Norm	Norm	Man																	
sds_mrsvnc	sds-mrsvnc-b	Disabled	Warn	Norm	Norm	Man																	
<p>34.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	  <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																					

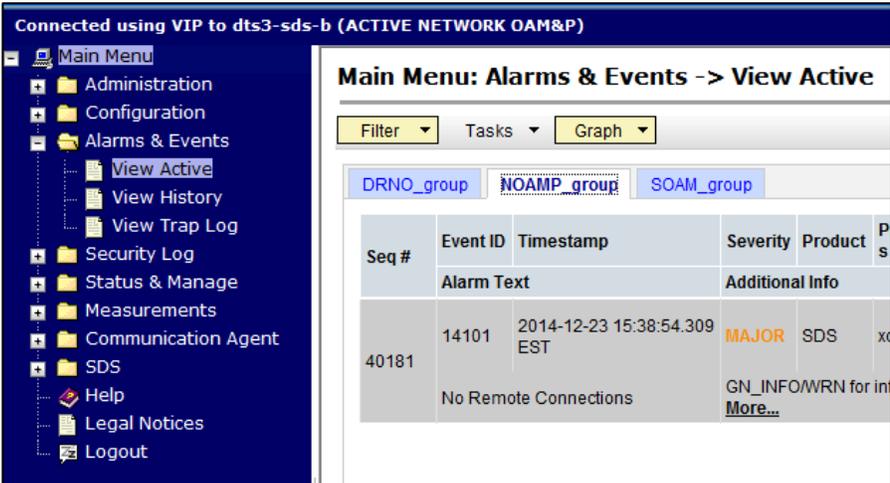
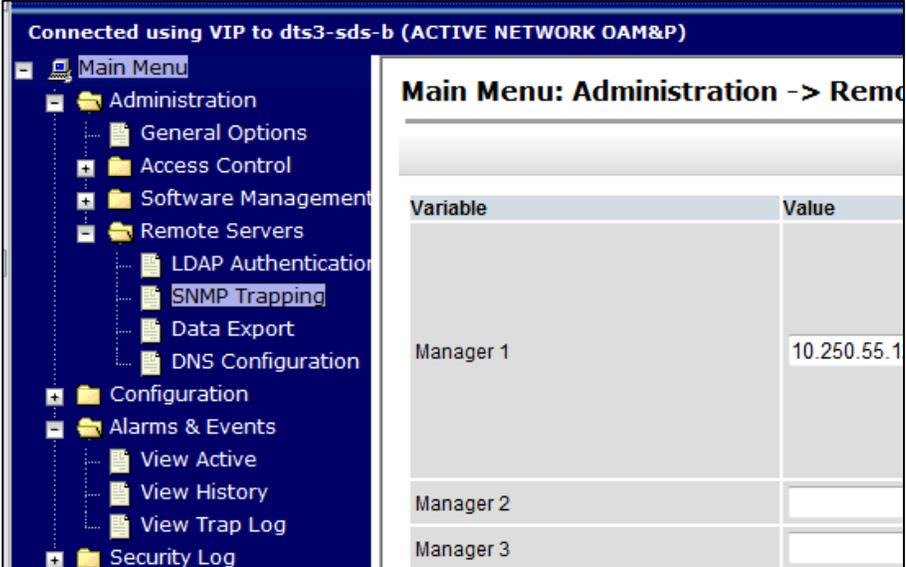
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																																			
<p>35.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “DB, Reporting Status & Proc” status columns all show “Norm” for SDS Server NOAM A before proceeding to the next Step.</p>	 <p>Main Menu: Status & Manage -> Server</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>SDS VIP:</p> <p>1) Using the mouse, select SDS Server B. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SDS Server B stating: “Successfully restarted application”.</p> <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” 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>Windows Internet Explorer</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>Main Menu: Status & Manage -> Server [Restart]</p> <p>Filter Status</p> <p>Status</p> <ul style="list-style-type: none"> sds-mrsvnc-b: Successfully restarted application. <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																															

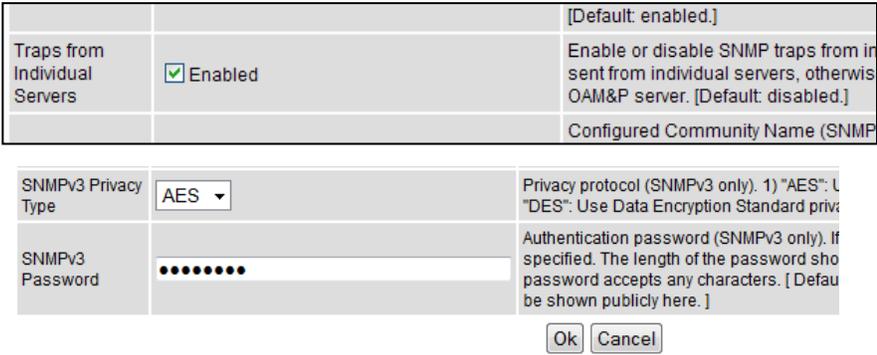
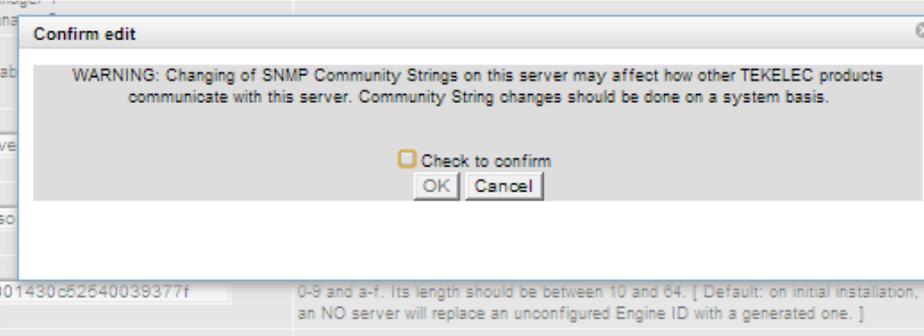
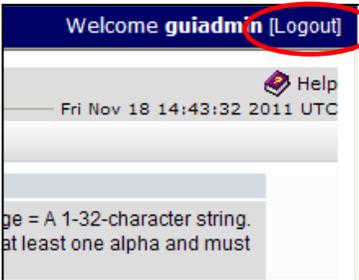
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result																					
<p>37.</p> <input type="checkbox"/>	<p>SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “DB, Reporting Status & Proc” status columns all show “Norm” for SDS Server NOAM A and SDS Server NOAM B before proceeding to the next Step.</p>	 <p>Main Menu: Status & Manage -> Server</p> <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>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
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																	
<p>38.</p> <input type="checkbox"/>	<p>IMPORTANT:</p> <p>Wait at least 5 minutes before proceeding on to the next Step.</p>	<ul style="list-style-type: none"> Now that the server(s) have been restarted they must establish a master/slave relationship for High Availability (HA). It may take several minutes for this process to be completed. Allow a minimum of 5 minutes before continuing to the next Step. 																					
<p>39.</p> <input type="checkbox"/>	<p>SDS VIP:</p> <p>If there is a context switch, you may be required to login again.</p> <p>Login to the GUI using the default user and password.</p>	 <p>ORACLE®</p> <p>Oracle System Login</p> <p>Tue Nov 4 13:38:12 2014 EST</p> <p>Log In</p> <p>Enter your username and password to log in</p> <p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="checkbox"/> Change password</p> <p><input type="button" value="Log In"/></p> <p>Welcome to the Oracle System Login.</p> <p>Unauthorized access is prohibited. This Oracle system requires the use of Microsoft Internet Explorer 8.0, 9.0, or 10.0 with support for JavaScript and cookies.</p> <p><small>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</small></p> <p><small>Copyright © 2010, 2014, Oracle and/or its affiliates. All rights reserved.</small></p>																					

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

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

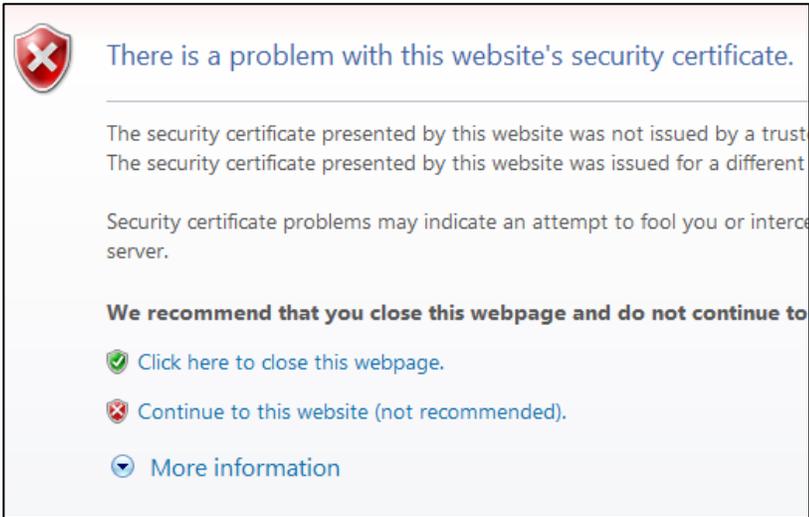
Procedure 3: Pairing the SDS NOAM Servers (1st SDS NOAM site only)

Step	Procedure	Result
<p>43.</p> <p><input type="checkbox"/></p>	<p>SDS VIP:</p> <p>1) Using the cursor, place a “check” in the check box for “Traps from Individual Servers”.</p> <p>2) Click the “Ok” 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 sent from individual servers, otherwise sent from OAM&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 privacy protocol. 2) "DES": Use Data Encryption Standard privacy protocol.</p> <p>SNMPv3 Password Authentication password (SNMPv3 only). If specified. The length of the password should be between 10 and 64 characters. The password should contain at least one alpha and one numeric character. [Default: empty.]</p> <p>Ok Cancel</p>
<p>44.</p>	<p>SDS VIP:</p> <p>Note: If SNMP string have been configured then follow below steps.</p> <p>1) Using the cursor, place a “check” in the check box for “Check to confirm”.</p> <p>2) Click the “OK” 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>SDS VIP:</p> <p>Click the “Logout” link on the server GUI.</p>	 <p>Welcome guiadmin [Logout]</p> <p>Help</p> <p>Fri Nov 18 14:43:32 2011 UTC</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

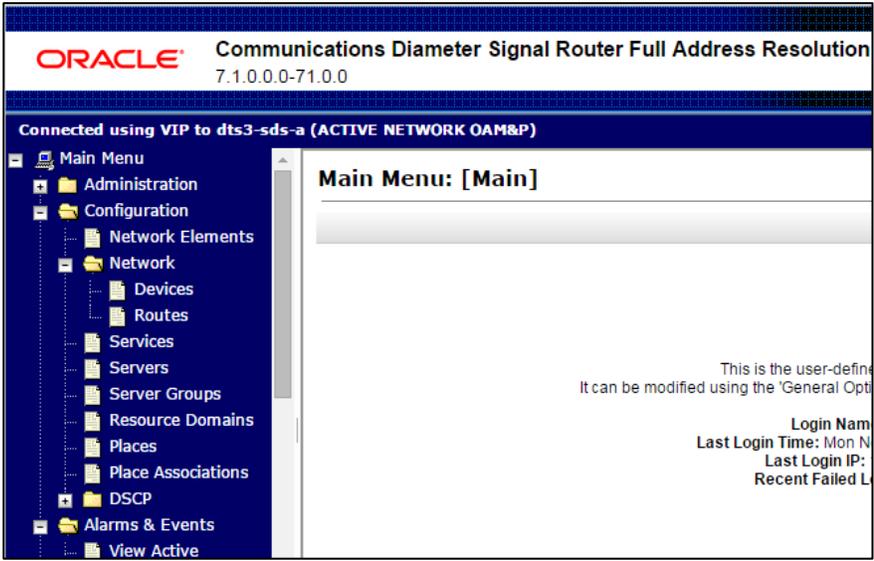
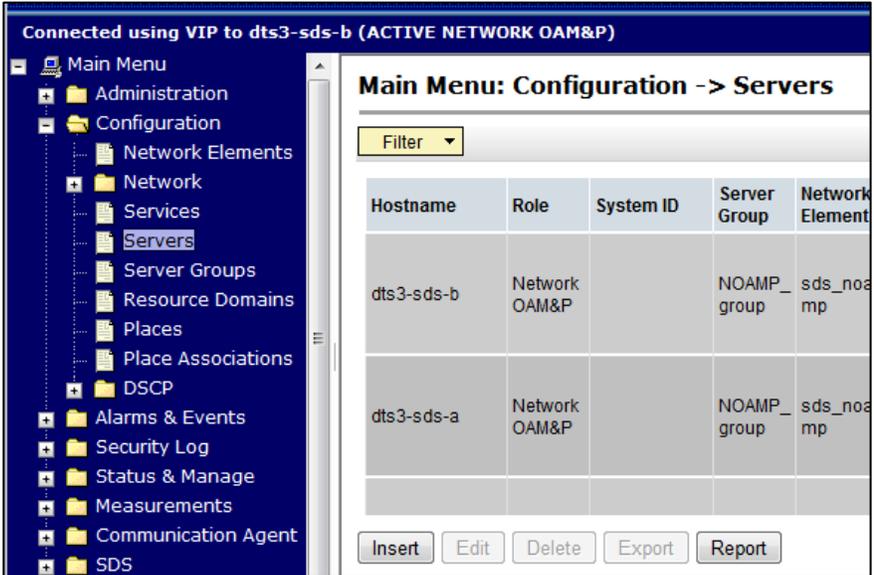
5.3 Query Server Installation (All SDS NOAM sites)

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

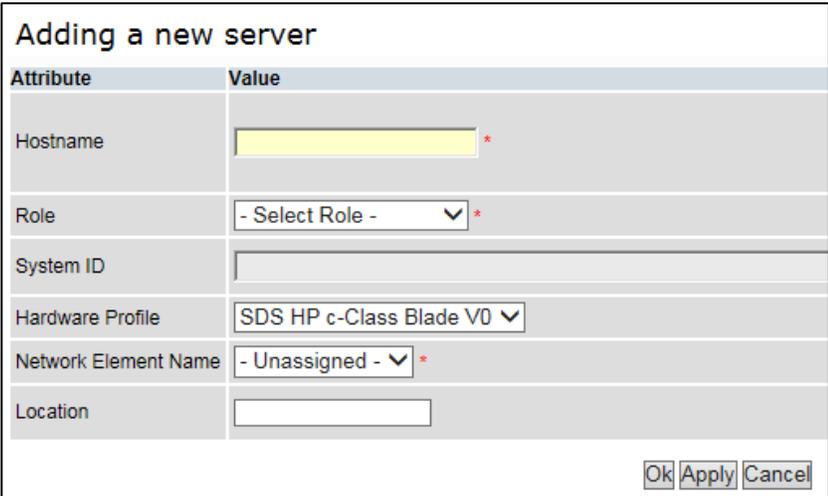
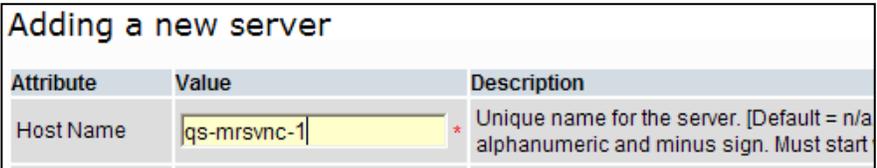
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

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

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

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

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

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS VIP: The user is now presented with the “Adding a new server” configuration screen.</p>	
<p>7.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Input the assigned “hostname” for the Query Server.</p>	
<p>8.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select “QUERY SERVER” for the server “Role” from the pull-down menu.</p>	

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

Step	Procedure	Result															
<p>9.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>For Gen6 & Gen8 Server Select "SDS HP Rack Mount" for the Hardware Profile for the SDS from the pull-down menu.</p> <p>For Gen9 Server: Select "SDS HP Gen9 Rack Mount" for the Hardware Profile for the SDS from the pull-down menu.</p>	<p>For Gen6 & Gen8 select "SDS HP Rack Mount" from the Hardware Profile pull-down menu.</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 SDS HP c-Class Blade V0 SDS HP c-Class Blade V1</td> <td>Select the network element</td> </tr> <tr> <td>Location</td> <td>SDS HP Rack Mount</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> <p>For Gen9 Server, Select "SDS HP Gen9 Rack Mount" from the Hardware Profile pull-down menu.</p> <div style="border: 1px solid black; padding: 5px;"> <table border="1"> <tr> <td>Hardware Profile</td> <td>3-pair Un-Bonded HP c-Class Blade</td> </tr> <tr> <td>Network Element Name</td> <td>3-pair Un-Bonded HP c-Class Blade BL620 HP c-Class Blade</td> </tr> <tr> <td>Location</td> <td>SDS HP Gen9 Rack Mount 2-pair HP c-Class Blade DSR TVOE Guest vCloud Guest L2D3 BL460 MP HP c-Class Blade L2D3 BL620 MP HP c-Class Blade(Unbonded Sig) 3-pair Bonded HP c-Class Blade DSR Guest BL460 HP c-Class Blade L2D3 BL620 MP HP c-Class Blade</td> </tr> </table> </div>	Hardware Profile	SDS TVOE Guest	Hardware profile of the server	Network Element Name	SDS HP c-Class Blade V2 SDS HP c-Class Blade V0 SDS HP c-Class Blade V1	Select the network element	Location	SDS HP Rack Mount	Location description [Default = "". Range string.]	Hardware Profile	3-pair Un-Bonded HP c-Class Blade	Network Element Name	3-pair Un-Bonded HP c-Class Blade BL620 HP c-Class Blade	Location	SDS HP Gen9 Rack Mount 2-pair HP c-Class Blade DSR TVOE Guest vCloud Guest L2D3 BL460 MP HP c-Class Blade L2D3 BL620 MP HP c-Class Blade(Unbonded Sig) 3-pair Bonded HP c-Class Blade DSR Guest BL460 HP c-Class Blade L2D3 BL620 MP HP c-Class Blade
Hardware Profile	SDS TVOE Guest	Hardware profile of the server															
Network Element Name	SDS HP c-Class Blade V2 SDS HP c-Class Blade V0 SDS HP c-Class Blade V1	Select the network element															
Location	SDS HP Rack Mount	Location description [Default = "". Range string.]															
Hardware Profile	3-pair Un-Bonded HP c-Class Blade																
Network Element Name	3-pair Un-Bonded HP c-Class Blade BL620 HP c-Class Blade																
Location	SDS HP Gen9 Rack Mount 2-pair HP c-Class Blade DSR TVOE Guest vCloud Guest L2D3 BL460 MP HP c-Class Blade L2D3 BL620 MP HP c-Class Blade(Unbonded Sig) 3-pair Bonded HP c-Class Blade DSR Guest BL460 HP c-Class Blade L2D3 BL620 MP HP c-Class Blade																
<p>10.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select the Network Element Name of the SDS site where the Query Server is physically located.</p>	<div style="border: 1px solid black; padding: 5px;"> <table border="1"> <tr> <td>Network Element Name</td> <td>- Unassigned - *</td> <td>Select the network element</td> </tr> <tr> <td>Location</td> <td>- Unassigned - sds...mrsvnc</td> <td>Location description [Default =</td> </tr> </table> </div>	Network Element Name	- Unassigned - *	Select the network element	Location	- Unassigned - sds...mrsvnc	Location description [Default =									
Network Element Name	- Unassigned - *	Select the network element															
Location	- Unassigned - sds...mrsvnc	Location description [Default =															
<p>11.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Enter the site location.</p>	<div style="border: 1px solid black; padding: 5px;"> <table border="1"> <tr> <td>Location</td> <td>Morrisville_NC</td> <td>Location description [Default = "". Range = A 15-character string. Valid value is any text string.]</td> </tr> </table> </div> <p>NOTE: Location is an optional field.</p>	Location	Morrisville_NC	Location description [Default = "". Range = A 15-character string. Valid value is any text string.]												
Location	Morrisville_NC	Location description [Default = "". Range = A 15-character string. Valid value is any text string.]															

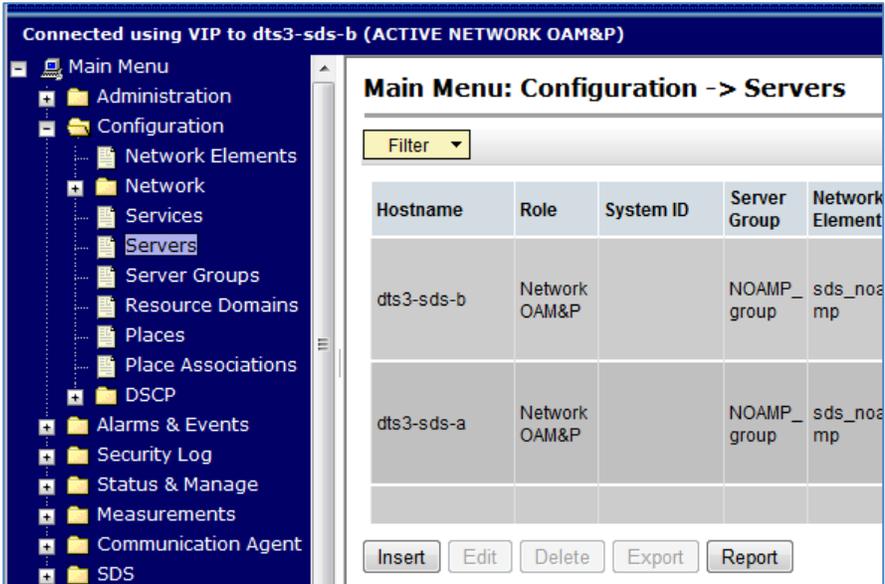
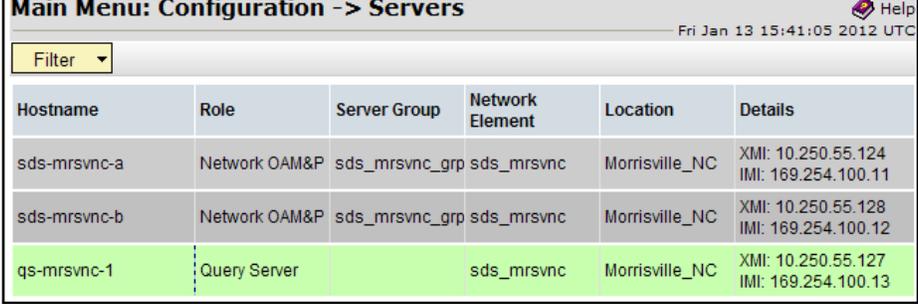
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																																					
12. <input type="checkbox"/>	<p>SDS Server NOAM A:</p> <p>1) Enter the MGMNT_VLAN IP address for the Query Server.</p> <p>2) Set the MGMNT_VLAN Interface to “bond0” and “check” the VLAN checkbox.</p> <p>3) Enter the IMI IP address for the Query Server.</p> <p>4) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<div style="border: 1px solid black; padding: 5px;"> <p>Interfaces:</p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN</th> </tr> </thead> <tbody> <tr> <td>MGMNT_VLAN (169.254.1.0/24)</td> <td>169.254.1.13</td> <td>bond0</td> <td><input checked="" type="checkbox"/> VLAN (2)</td> </tr> <tr> <td>XMI (10.240.241.0/24)</td> <td>10.250.55.127</td> <td>bond1</td> <td><input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>IMI (169.254.100.0/24)</td> <td>169.254.100.13</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"> <thead> <tr> <th>Query Server</th> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS-QS (Primary NE)</td> <td>MGMNT_VLAN</td> <td>169.254.1.13</td> <td rowspan="2">bond0</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.13</td> <td><input checked="" type="checkbox"/></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><input checked="" type="checkbox"/></td> </tr> <tr> <td>IMI</td> <td>169.254.100.16</td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table> <p>NOTE_1: These IP addresses are based on the info in the NAPD and the Network Element Config file.</p> <p>NOTE_2: The MGMT_VLAN should only be present when 4948E-F AggregationSwitches are deployed with SDS NOAM / Query Server RMS. If the MGMT_VLAN is not present, the IMI network values shown above still apply.</p>	Network	IP Address	Interface	VLAN	MGMNT_VLAN (169.254.1.0/24)	169.254.1.13	bond0	<input checked="" type="checkbox"/> VLAN (2)	XMI (10.240.241.0/24)	10.250.55.127	bond1	<input type="checkbox"/> VLAN (3)	IMI (169.254.100.0/24)	169.254.100.13	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	<input checked="" type="checkbox"/>	IMI	169.254.100.13	<input checked="" type="checkbox"/>	SDS-QS (DR NE)	MGMNT_VLAN	169.254.1.16	bond0	<input checked="" type="checkbox"/>	IMI	169.254.100.16	<input checked="" type="checkbox"/>
Network	IP Address	Interface	VLAN																																				
MGMNT_VLAN (169.254.1.0/24)	169.254.1.13	bond0	<input checked="" type="checkbox"/> VLAN (2)																																				
XMI (10.240.241.0/24)	10.250.55.127	bond1	<input type="checkbox"/> VLAN (3)																																				
IMI (169.254.100.0/24)	169.254.100.13	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	<input checked="" type="checkbox"/>																																			
	IMI	169.254.100.13		<input checked="" type="checkbox"/>																																			
SDS-QS (DR NE)	MGMNT_VLAN	169.254.1.16	bond0	<input checked="" type="checkbox"/>																																			
	IMI	169.254.100.16		<input checked="" type="checkbox"/>																																			
13.	<p>1) Enter the customer assigned XMI IP address for the Query Server.</p> <p>Layer 3 (No VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox. - OR - Layer 2 (VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>Query Server</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">SDS-QS (Primary & DR)</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table> <p>!!! CAUTION !!!</p> <p>It is crucial that the correct network configuration be selected in Steps 12 & 13 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the Query Server installation procedure over from the beginning.</p>	Query Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	SDS-QS (Primary & DR)	XMI	No	bond1	<input checked="" type="checkbox"/>	Yes	bond0	<input checked="" type="checkbox"/>																								
Query Server	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox																																			
SDS-QS (Primary & DR)	XMI	No	bond1	<input checked="" type="checkbox"/>																																			
		Yes	bond0	<input checked="" type="checkbox"/>																																			

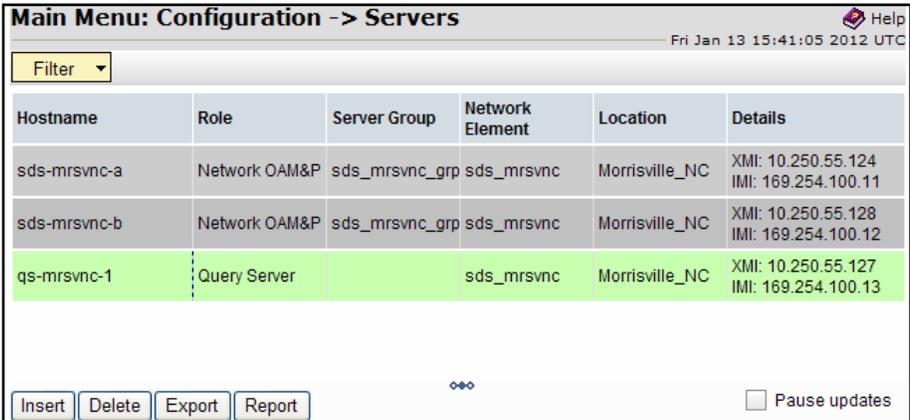
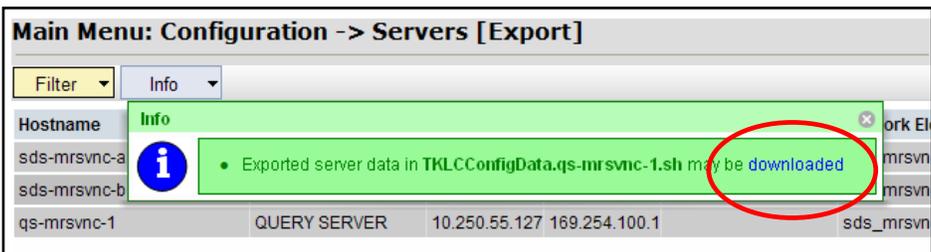
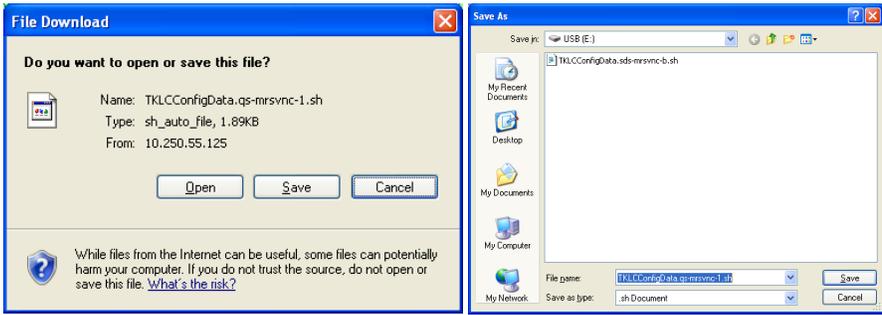
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>14.</p> <p><input type="checkbox"/></p>	<p>SDS Server NOAM A:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>	<p>The 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 IP address '10.250.32.10' entered in the 'NTP Server IP Address' field. The third screenshot shows three IP addresses: '10.240.21.191', '10.240.21.192', and '10.240.21.193'. The 'Prefer' checkbox is checked for the last IP address.</p>
<p>15.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p>	<p>The result shows a screenshot of the 'Main Menu: Configuration -> Servers [Insert]' dialog. A green information banner is displayed with the message 'Pre-Validation passed - Data NOT committed ...'. The 'Host Name' field contains 'qs-mrsvnc-1'. The 'Apply' button is circled in red.</p>
<p>16.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values provided match the network ranges assigned to the NE, the user will receive a banner information message showing that the data has been validated and committed</p>	<p>The result shows a screenshot of the 'Main Menu: Configuration -> Servers [Insert]' dialog. A green information banner is displayed with the message 'Data committed!'. The 'Host Name' field contains 'qs-mrsvnc-1'.</p>

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

Step	Procedure	Result																								
<p>17.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	 <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&P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&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>18.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The “Configuration → Servers” screen now shows the newly added Query Server in the list.</p>	<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&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&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>Primary SDS VIP:</p> <p>Using the mouse, select the Query Server. The line entry containing the Query Server should now be 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&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&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 style="background-color: #e0ffe0;"> <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																					

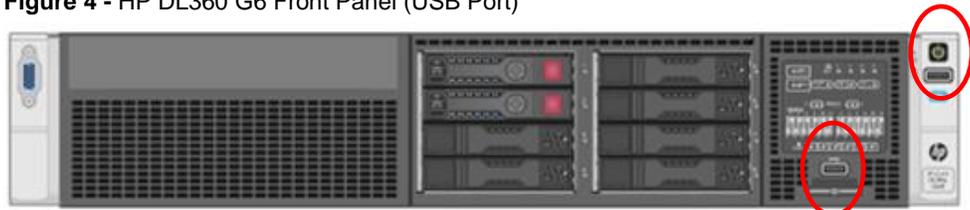
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																								
<p>20.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “Export” dialogue button.</p>	 <p>Main Menu: Configuration -> Servers</p> <p>Filter</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&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&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 style="background-color: #e0ffe0;"> <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>Primary SDS VIP:</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 “downloaded” to download and save the file.</p>	 <p>Main Menu: Configuration -> Servers [Export]</p> <p>Filter Info</p> <p>Info</p> <p>Exported server data in TKLCConfigData.qs-mrsvnc-1.sh may be downloaded</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></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>sds-mrsvnc-b</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>qs-mrsvnc-1</td> <td>QUERY SERVER</td> <td></td> <td>10.250.55.127</td> <td>169.254.100.1</td> <td>sds_mrsvnc</td> </tr> </tbody> </table>	Hostname	Role	Server Group	Network Element	Location	Details	sds-mrsvnc-a						sds-mrsvnc-b						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																										
sds-mrsvnc-b																										
qs-mrsvnc-1	QUERY SERVER		10.250.55.127	169.254.100.1	sds_mrsvnc																					
<p>22.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Click the “Save” dialogue button.</p> <p>2) Save the Query Server configuration file to a USB flash drive.</p>	 <p>File Download</p> <p>Do you want to open or save this file?</p> <p>Name: TKLCConfigData.qs-mrsvnc-1.sh Type: sh_auto_file, 1.89KB From: 10.250.55.125</p> <p>Open Save Cancel</p> <p>Save As</p> <p>Save in: USB (E:)</p> <p>TKLCConfigData.qs-mrsvnc-1.sh</p> <p>File name: TKLCConfigData.qs-mrsvnc-1.sh Save as type: sh Document</p> <p>Save Cancel</p>																								
<p>23.</p> <p><input type="checkbox"/></p>	<p>Query Server:</p> <p>Access the server console.</p>	<p>Connect to the Query Server console using one of the access methods described in Section 2.3.</p>																								
<p>24.</p> <p><input type="checkbox"/></p>	<p>Query Server:</p> <p>1) Access the command prompt.</p> <p>2) Log into the server as the “admusr” user.</p>	<p>login: admusr</p> <p>Using keyboard-interactive authentication.</p> <p>Password: <admusr_password></p>																								

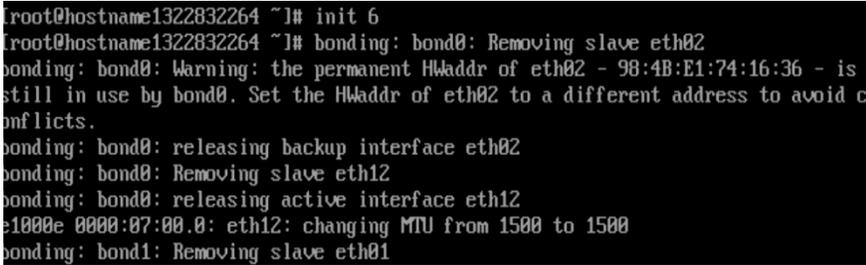
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>25.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the Query Server.</p>	 <p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p>  <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>26.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Output similar to that shown on the right will appear as the USB flash drive is inserted into the SDS Server front USB port.</p>	<pre>\$ sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through <ENTER></pre> <p>NOTE: Press the <ENTER> key to return to the command prompt.</p>
<p>27.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Verify that the USB flash drive's partition has been mounted by the OS.</p>	<pre>\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1</pre> <p>NOTE: Search df for the device named in the previous step's output.</p>
<p>28.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Copy the configuration file</p>	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.qs-mrsvnc-1.sh /var/TKLC/db/filemgmt/.</pre>

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

Step	Procedure	Result
<p>29.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Copy the Query Server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p>Example:</p> <p>TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.qs-mrsvnc-1.sh /var/tmp/TKLCConfigData.sh</pre> <p>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
<p>30.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p> <p>NOTE: This step varies by server and may take 3...20 minutes to complete.</p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <pre>Broadcast message from admusr (Mon Dec 14 16:17:13 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server.</pre>
<p>31.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Remove the USB flash drive from the USB port on the front panel of Query Server.</p> <p>CAUTION: It is important that the USB flash drive be removed from the server before continuing on to the next step.</p>	 <p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p>  <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p>

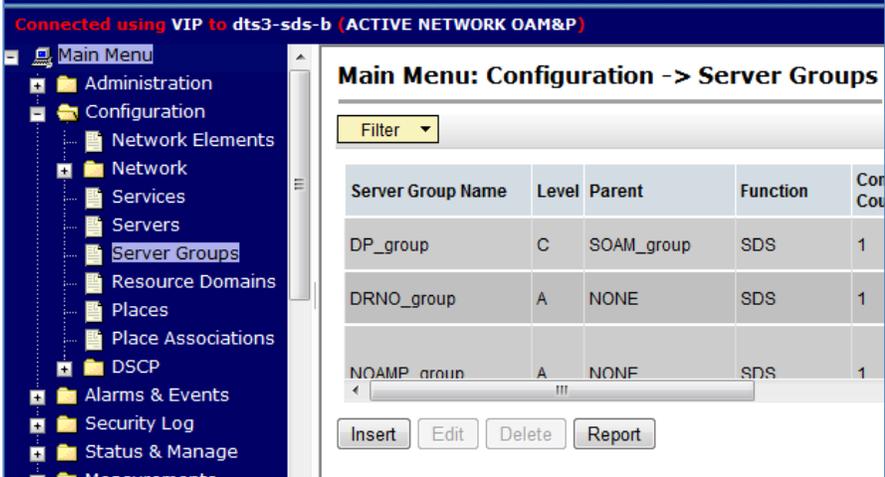
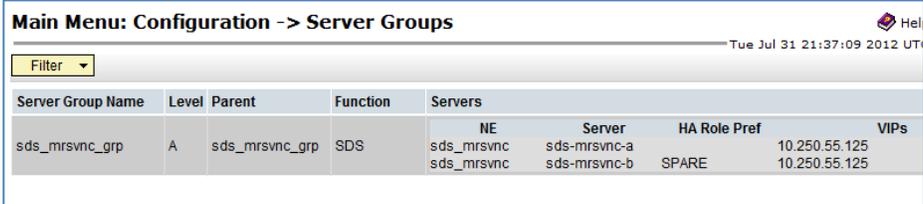
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>32.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Ignore the output shown and press the <ENTER> key to return to the command prompt.</p>	<pre>Broadcast message from admusr (Mon Dec 14 16:17:13 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server. <ENTER></pre>
<p>33.</p>	<p>SDS Server NOAM A or 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>SDS Server NOAM A or B:</p> <p>If the desired Time Zone was not presented in the previous step...</p> <p>Configure the Time Zone.</p> <p>Otherwise, skip to the next step.</p>	<p><i>Example:</i> <code>\$ sudo set_ini_tz.pl <time_zone></code></p> <p>NOTE: The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites.</p> <p>The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix H for a list of valid time zones.</p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
<p>35.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Initiate a reboot of the Query Server.</p>	<pre>\$ sudo init 6</pre>
<p>36.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	 <pre>root@hostname1322832264 ~]# init 6 root@hostname1322832264 ~]# bonding: bond0: Removing slave eth02 bonding: bond0: Warning: the permanent Hwaddr of eth02 - 98:4B:E1:74:16:36 - is still in use by bond0. Set the Hwaddr of eth02 to a different address to avoid conflicts. bonding: bond0: releasing backup interface eth02 bonding: bond0: Removing slave eth12 bonding: bond0: releasing active interface eth12 e1000e 0000:07:00.0: eth12: changing MTU from 1500 to 1500 bonding: bond1: Removing slave eth01</pre>
<p>37.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>1) Access the command prompt.</p> <p>2) Login as the "admusr" user.</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: <admusr_password></pre>

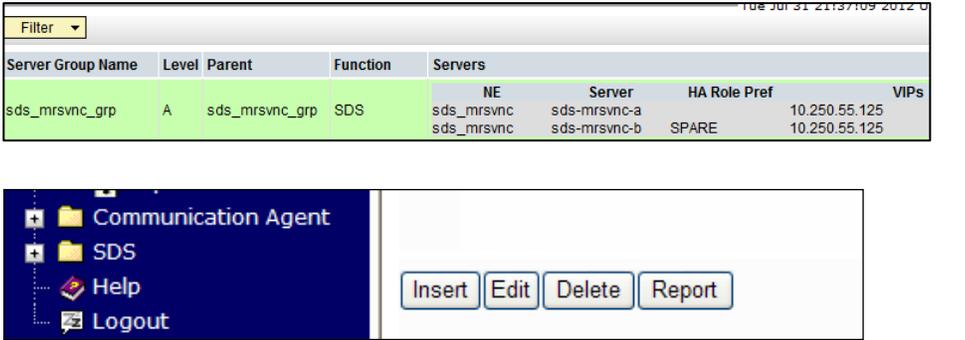
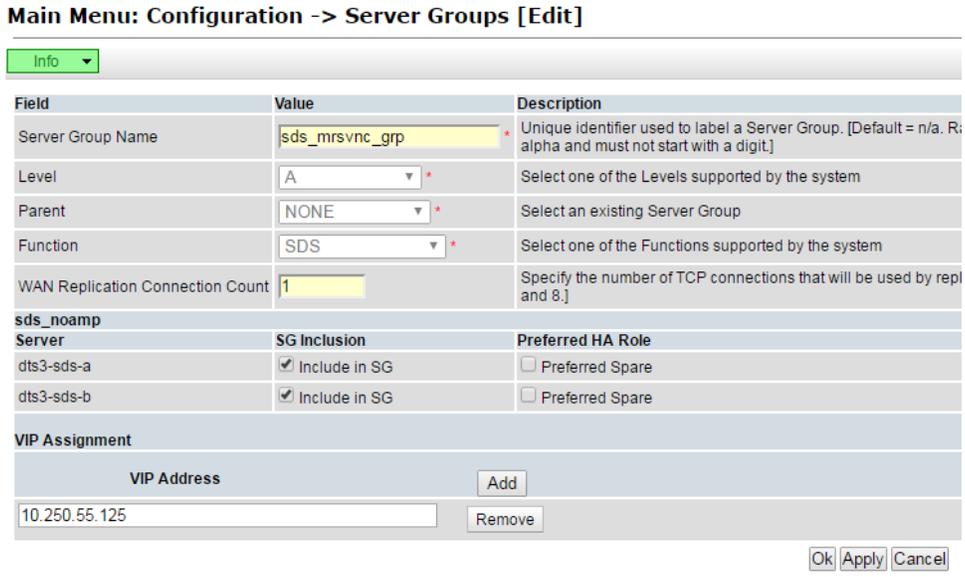
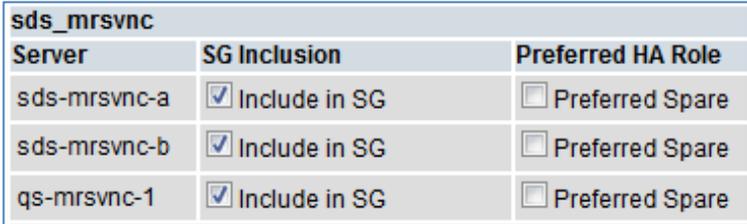
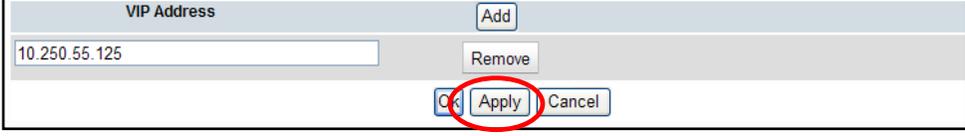
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

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

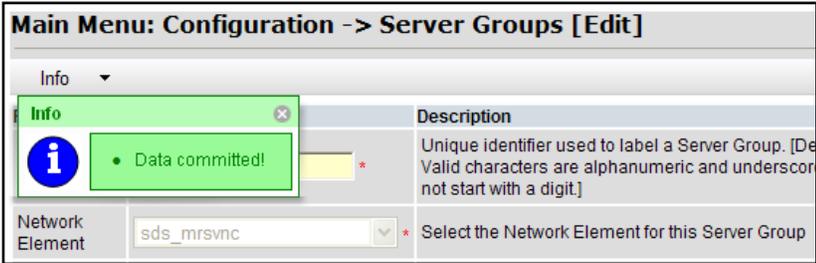
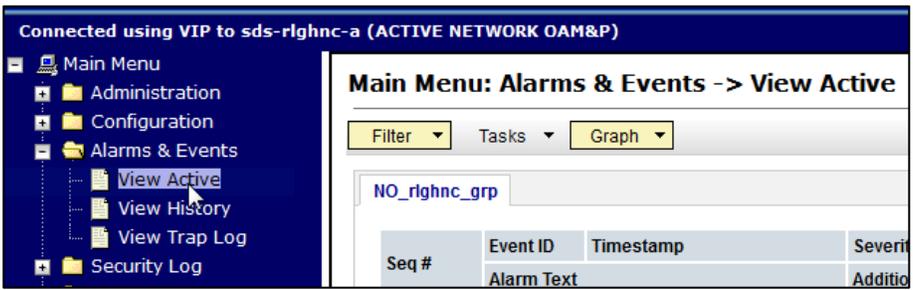
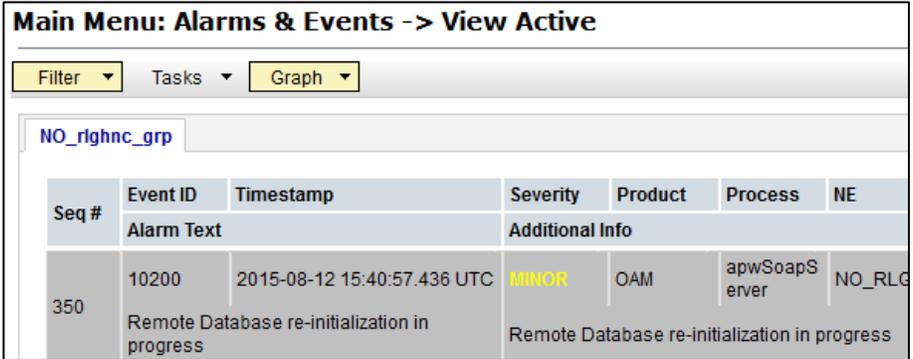
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result
<p>42.</p> <input type="checkbox"/>	<p>Query Server:</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>43.</p> <input type="checkbox"/>	<p>Query Server:</p> <p>Exit to the login prompt.</p>	<pre>\$ exit</pre>
<p>44.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	
<p>45.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Configuration → Server Groups” screen as shown on the right</p>	

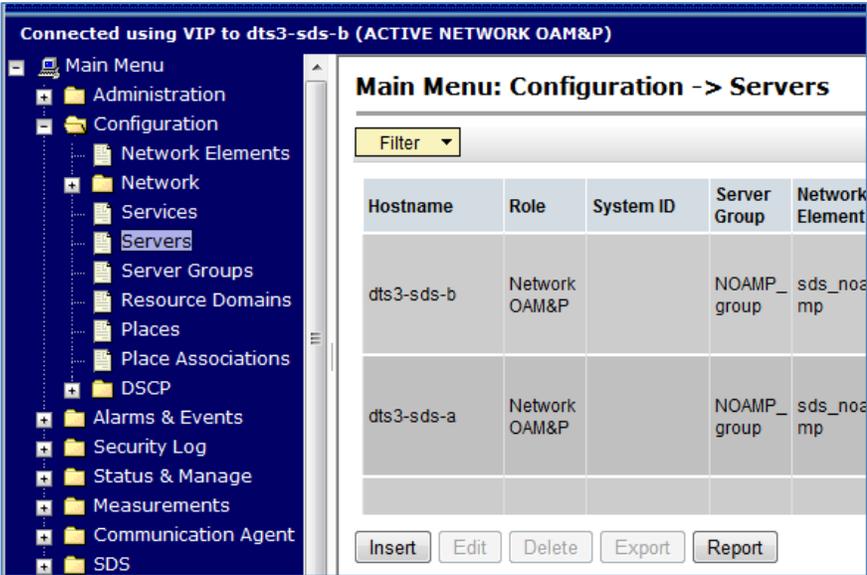
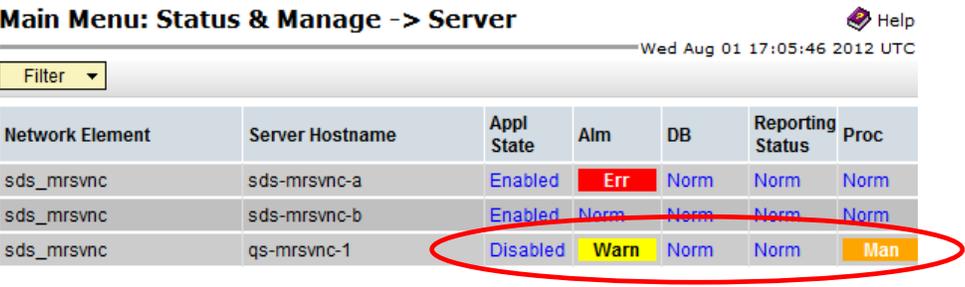
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result												
<p>46.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select the SDS Server Group associated with the Query Server being installed.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>													
<p>47.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>													
<p>48.</p>	<p>Primary SDS VIP:</p> <p>Select the “Query Server” from the list of “Available Servers in Network Element” by clicking on the check box next to its name.</p>	 <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>sds-mrvnc-a</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td>sds-mrvnc-b</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> <tr> <td>qs-mrvnc-1</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	sds-mrvnc-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	sds-mrvnc-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare	qs-mrvnc-1	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare
Server	SG Inclusion	Preferred HA Role												
sds-mrvnc-a	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare												
sds-mrvnc-b	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare												
qs-mrvnc-1	<input checked="" type="checkbox"/> Include in SG	<input type="checkbox"/> Preferred Spare												
<p>49.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Click the “Apply” dialogue button from the bottom of the screen.</p>													

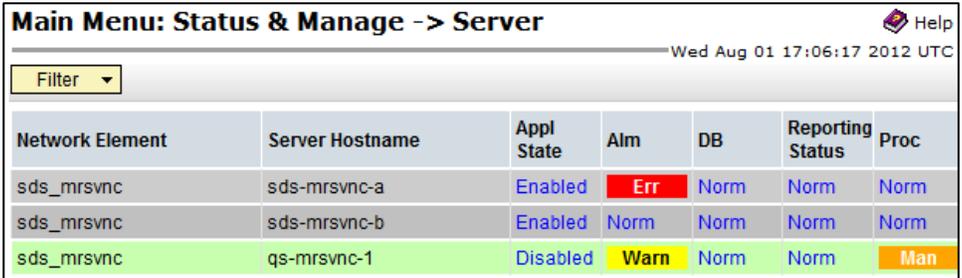
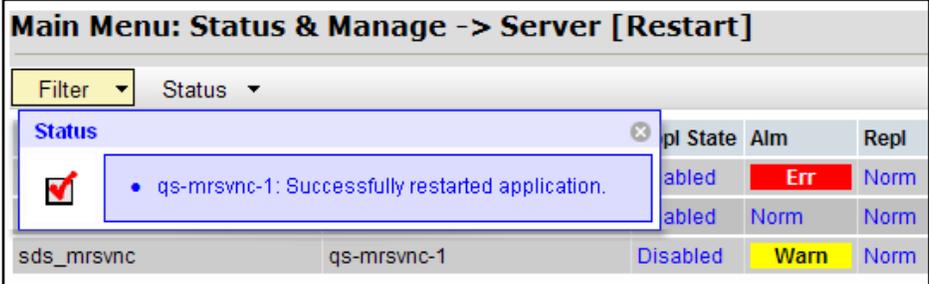
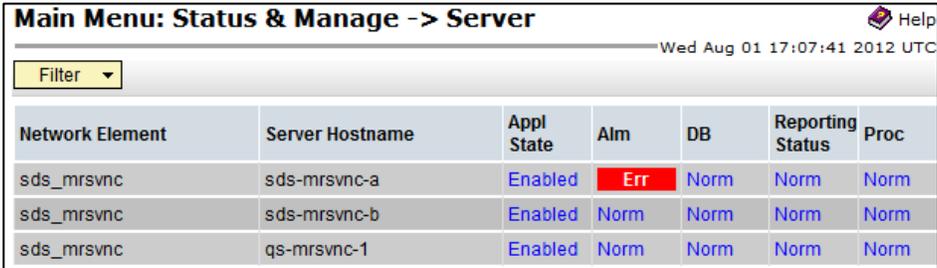
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result														
<p>50.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Edit]</p> <p>Info</p> <p>Info • Data committed!</p> <p>Description: Unique identifier used to label a Server Group. [Default Value: 1] Valid characters are alphanumeric and underscore, and not start with a digit.</p> <p>Network Element: sds_mrsvnc * Select the Network Element for this Server Group</p>														
<p>51.</p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu</p> <p>→ Alarms & Events</p> <p>→ View Active</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to sds-rlghnc-a (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Administration, Configuration, Alarms & Events, Security Log</p> <p>Main Menu: Alarms & Events -> View Active</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></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Process	NE							
Seq #	Event ID	Timestamp	Severity	Product	Process	NE										
<p>52.</p>	<p>SDS VIP:</p> <p>Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) is present with the Query Server hostname in the “Instance” field..</p>	 <p>Main Menu: Alarms & Events -> View Active</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_RLGHNC</td> </tr> </tbody> </table> <p>Alarm Text: Remote Database re-initialization in progress</p> <p>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_RLGHNC
Seq #	Event ID	Timestamp	Severity	Product	Process	NE										
350	10200	2015-08-12 15:40:57.436 UTC	MINOR	OAM	apwSoapServer	NO_RLGHNC										
<div style="display: flex; align-items: center;">  <p>MONITOR EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>). DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED.</p> </div>																

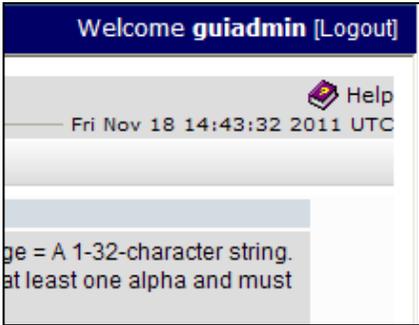
Procedure 4: Configuring the Query Server (All SDS NOAM sites)

Step	Procedure	Result																												
<p>53.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <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&P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&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>54.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “DB and Reporting Status” status columns show “Norm” for the Query Server at this point. The “Proc” column should show “Man”.</p>	 <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>	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	Man																								

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

Step	Procedure	Result
<p>55.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select the “Query Server” hostname. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for the “Query Server” stating: “Successfully restarted application”.</p> <p><i>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</i></p>	   
<p>56.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for the “Query Server”.</p>	

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

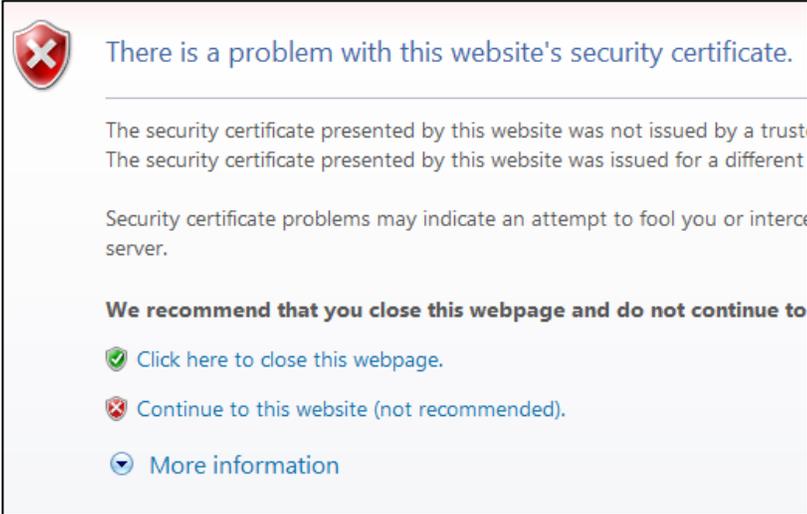
Step	Procedure	Result
<p>57.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Click the “Logout” link on the SDS server GUI.</p>	
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

5.4 OAM Installation for the DR SDS NOAM site

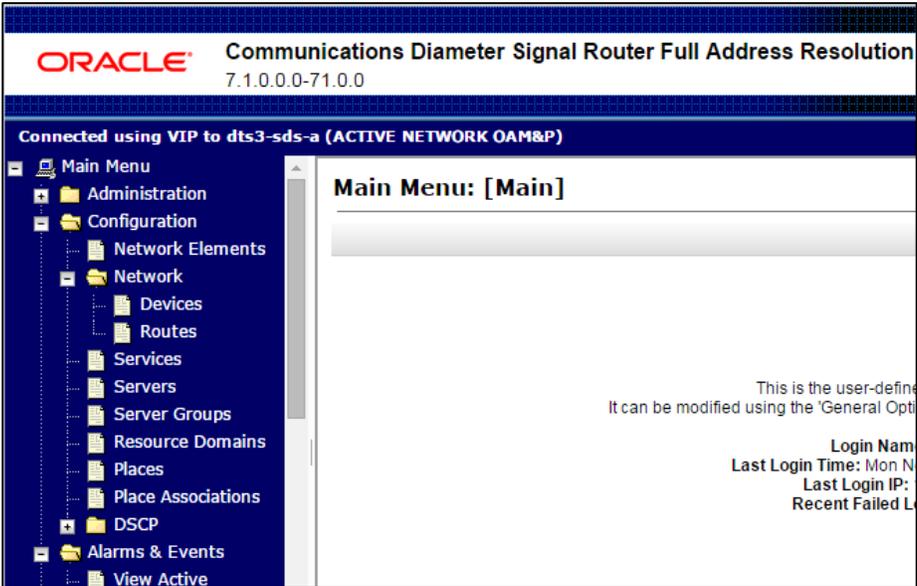
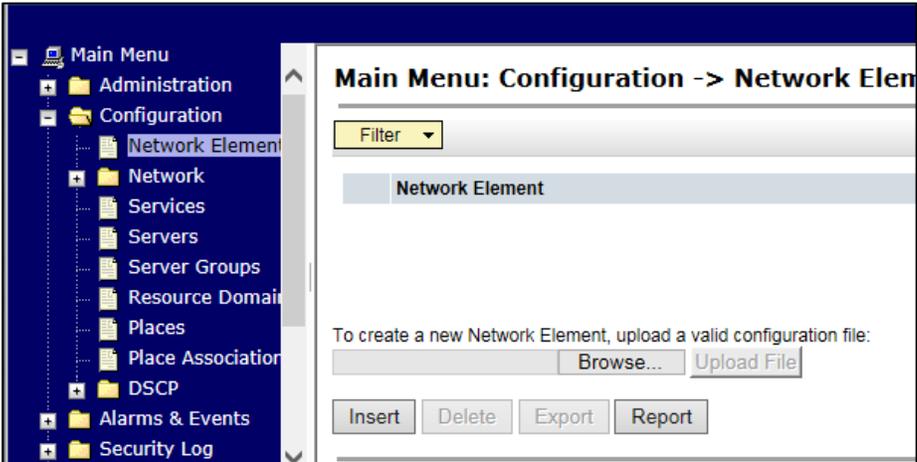
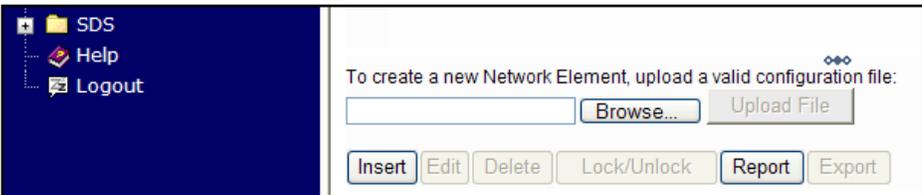
Assumptions:

- 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.

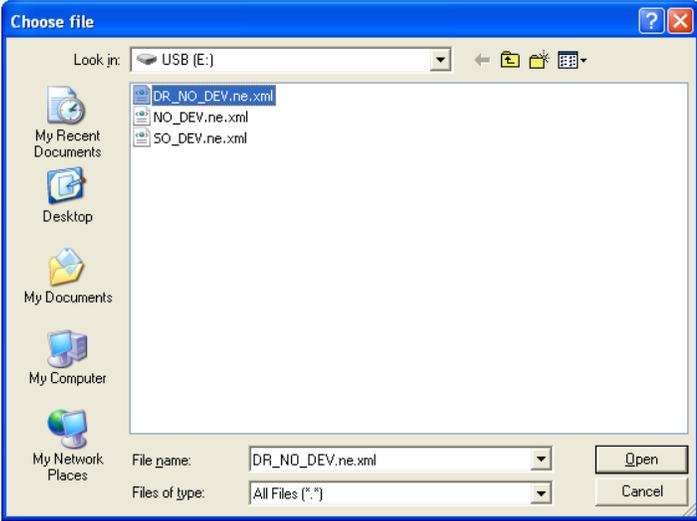
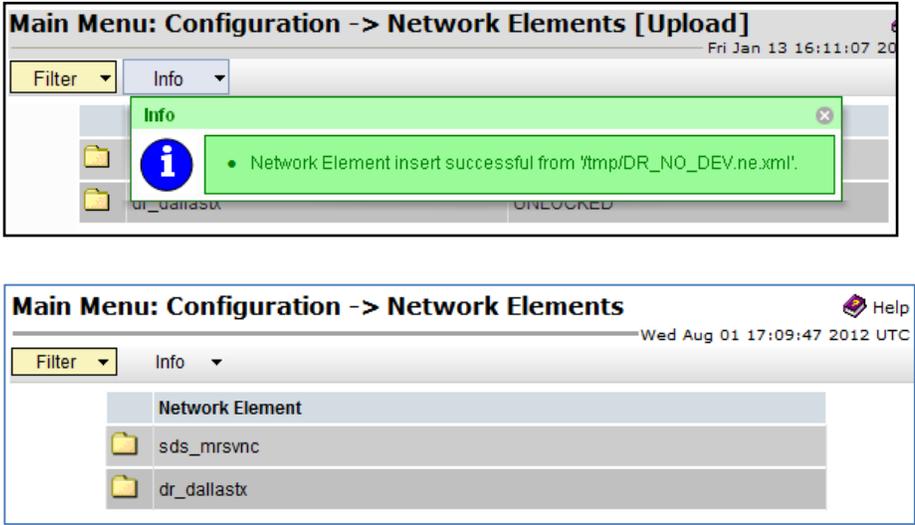
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

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

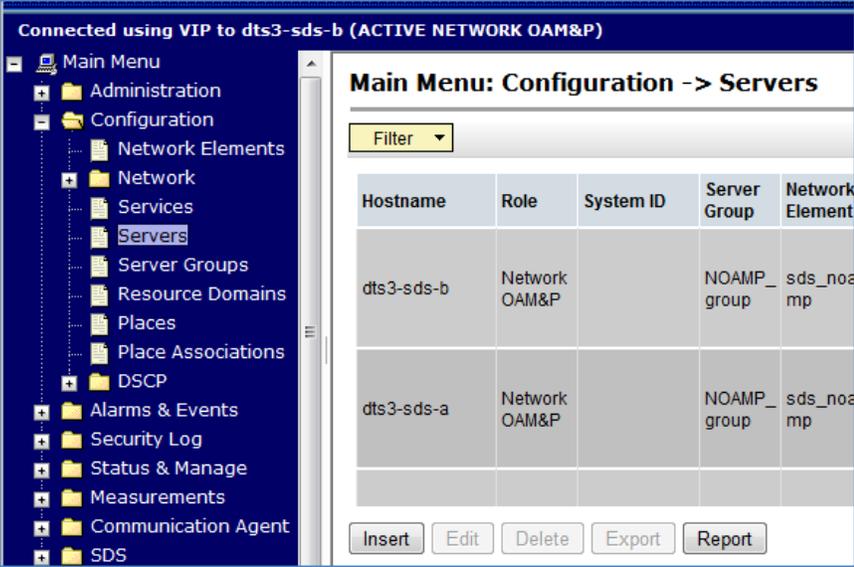
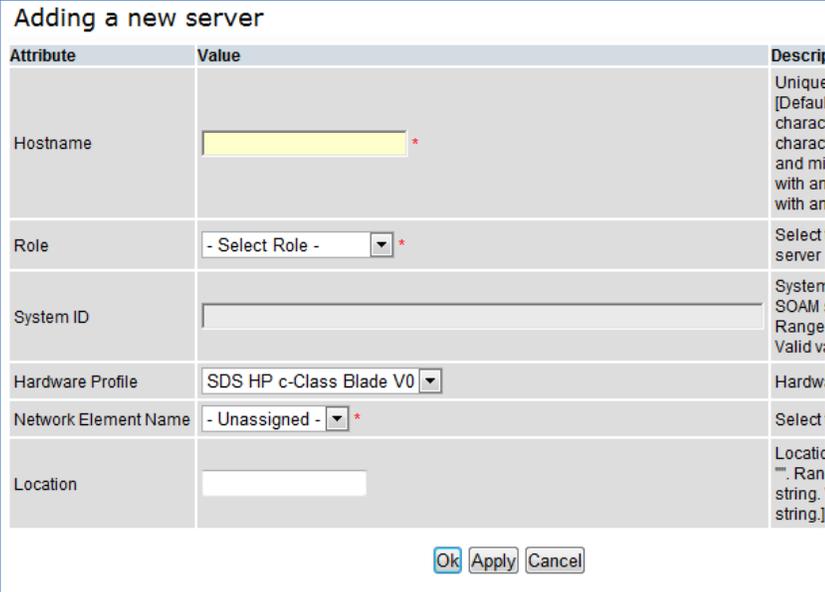
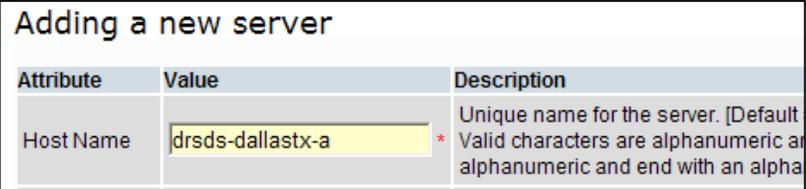
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

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

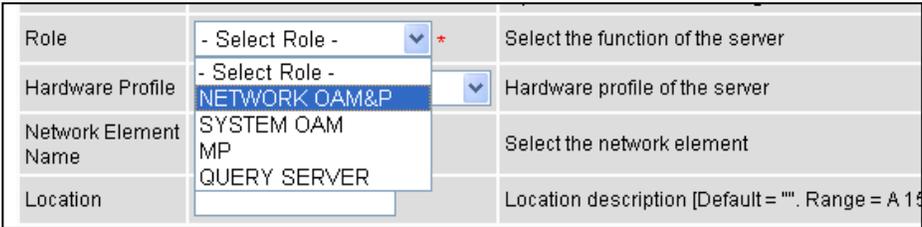
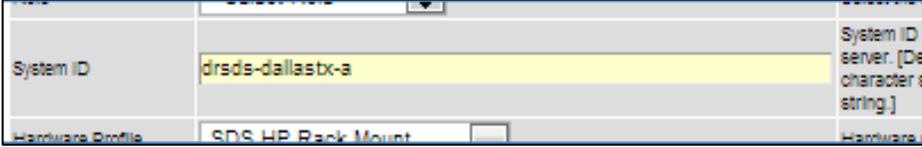
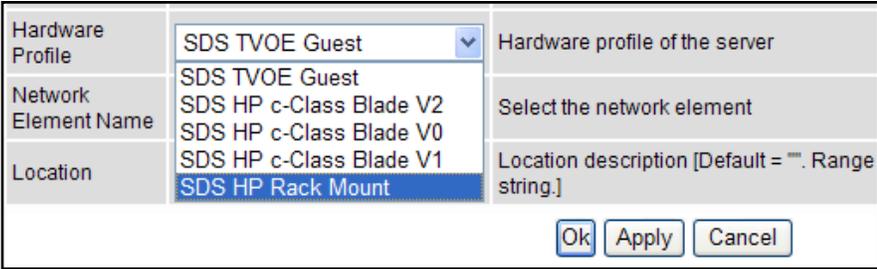
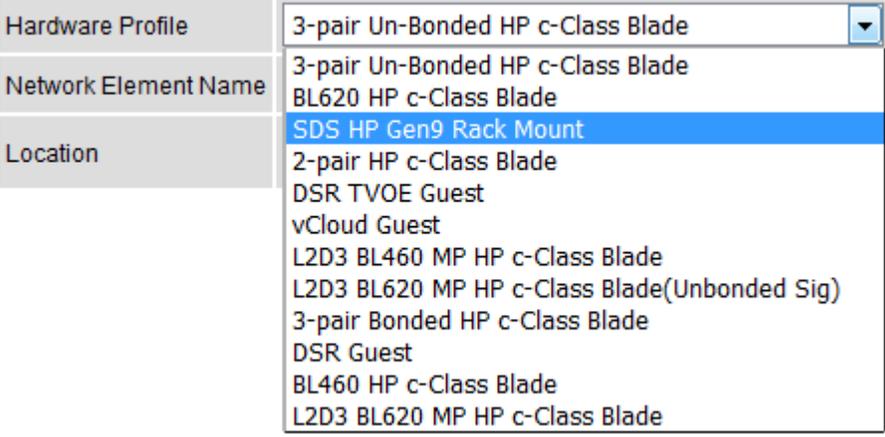
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Note: This step assumes that the xml files were previously prepared, as described in Appendix F.</p> <p>1) Select the location containing the site .xml file.</p> <p>2) Select the .xml file and click the “Open” dialogue button.</p>	
<p>7.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “Upload File” dialogue button (bottom left corner of screen).</p>	
<p>8.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values in the .xml file pass validation rules, the user will receive a banner information message showing that the data has been successfully validated and committed to the DB.</p>	

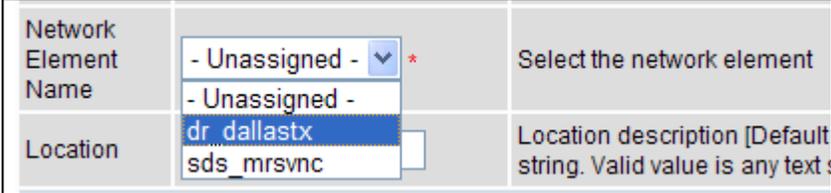
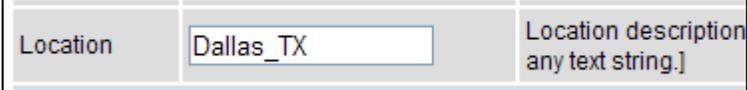
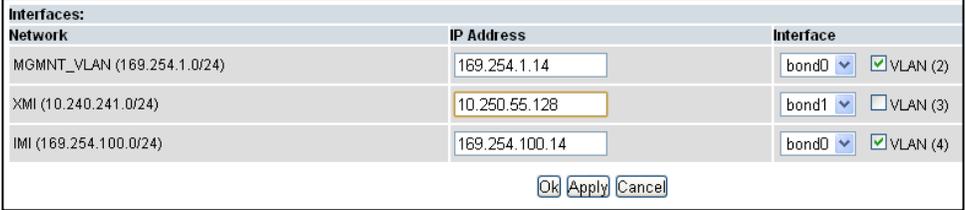
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

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

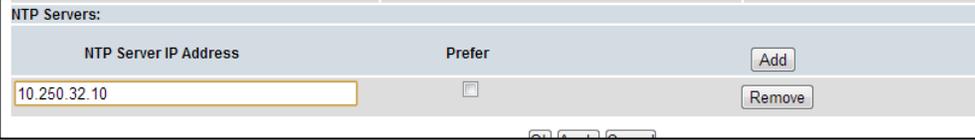
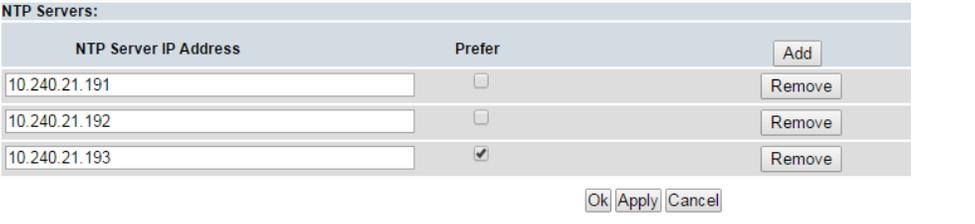
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select “NETWORK OAM&P” for the server “Role” from the pull-down menu.</p>	 <p>Role: - Select Role - (dropdown menu open, NETWORK OAM&P selected)</p> <p>Hardware Profile: - Select Role - (dropdown menu open, NETWORK OAM&P selected)</p> <p>Network Element Name: SYSTEM OAM MP</p> <p>Location: QUERY SERVER</p>
<p>13.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Input the assigned hostname again as the “System ID” for the SDS DR Server (A or B).</p>	 <p>System ID: drsds-dallastx-a</p> <p>Hardware Profile: SDS HP Rack Mount</p>
<p>14.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>For Gen6 & Gen8 Server:</p> <p>Select “SDS HP Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p> <p>For Gen9 Server:</p> <p>Select “SDS HP Gen9 Rack Mount” for the Hardware Profile for the SDS from the pull-down menu.</p>	<p>For Gen6 & Gen8 select “SDS HP Rack Mount” from the Hardware Profile pull-down menu.</p>  <p>Hardware Profile: SDS TVOE Guest (dropdown menu open, SDS HP Rack Mount selected)</p> <p>Network Element Name: SDS HP c-Class Blade V2</p> <p>Location: SDS HP Rack Mount</p> <p>Buttons: Ok, Apply, Cancel</p> <p>For Gen9 select “SDS HP Gen9 Rack Mount” from the Hardware Profile pull-down menu.</p>  <p>Hardware Profile: 3-pair Un-Bonded HP c-Class Blade (dropdown menu open, SDS HP Gen9 Rack Mount selected)</p> <p>Network Element Name: 3-pair Un-Bonded HP c-Class Blade</p> <p>Location: SDS HP Gen9 Rack Mount</p>

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

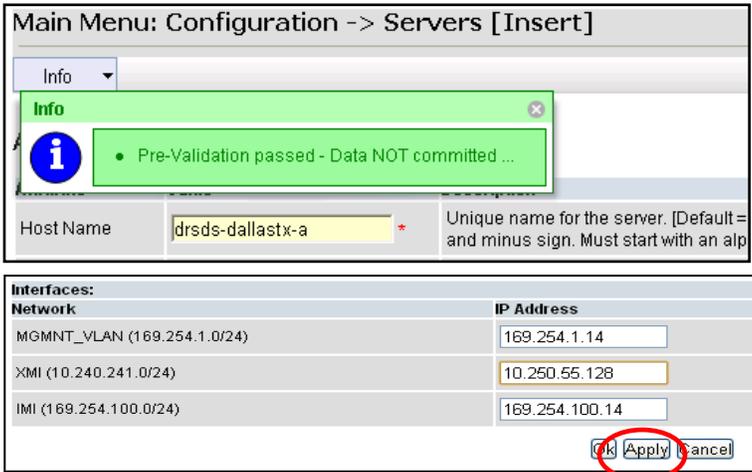
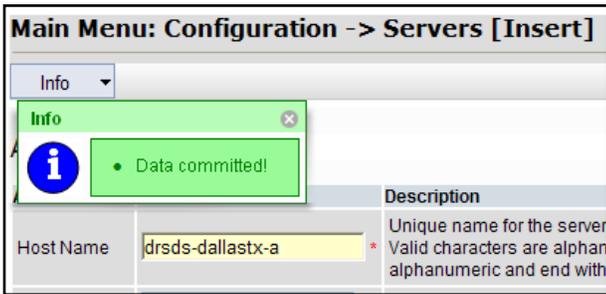
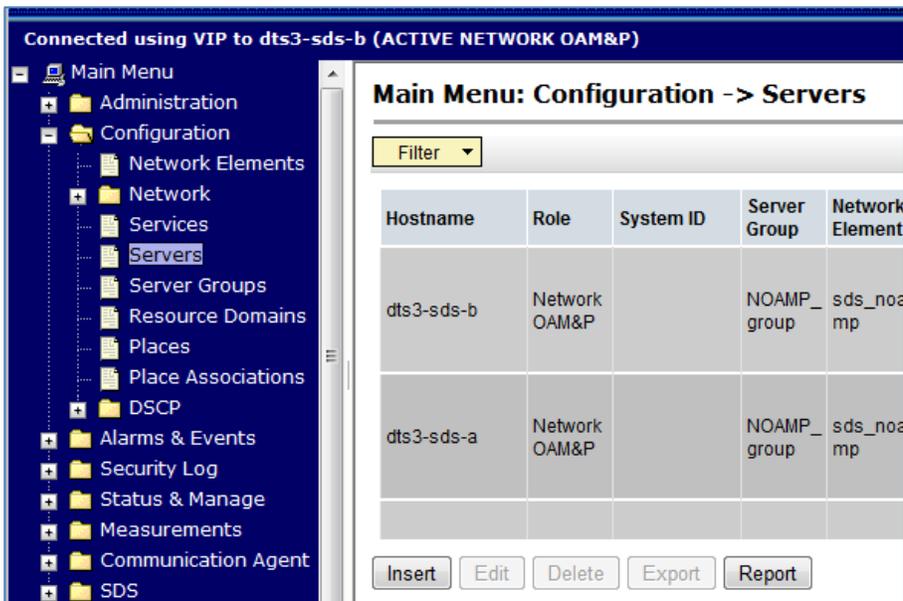
Step	Procedure	Result																			
<p>15.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select the Network Element Name for the SDS from the pull-down menu.</p>	 <p>NOTE: After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 17.</p>																			
<p>16.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Enter the site location.</p>	 <p>NOTE: Location is an optional field.</p>																			
<p>17.</p>	<p>SDS Server NOAM A:</p> <p>1) Enter the MGMNT_VLAN IP address for the DR SDS Server.</p> <p>2) Set the MGMNT_VLAN Interface to “bond0” and “check” the VLAN checkbox.</p> <p>3) Enter the IMI IP address for the DR SDS Server.</p> <p>4) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.</p>	 <table border="1"> <thead> <tr> <th>SDS Server (DR NOAM)</th> <th>Network</th> <th>IP Address</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">DR SDS-A</td> <td>MGMNT_VLAN</td> <td>169.254.1.14</td> <td rowspan="2">bond0</td> <td rowspan="2">✓</td> </tr> <tr> <td>IMI</td> <td>169.254.100.14</td> </tr> <tr> <td rowspan="2">DR SDS-B</td> <td>MGMNT_VLAN</td> <td>169.254.1.15</td> <td rowspan="2">bond0</td> <td rowspan="2">✓</td> </tr> <tr> <td>IMI</td> <td>169.254.100.15</td> </tr> </tbody> </table> <p>NOTE_1: These IP addresses are based on the info in the NAPD and the Network Element Config file.</p> <p>NOTE_2: The MGMT_VLAN should only be present when 4948E-F AggregationSwitches are deployed with SDS NOAM / Query Server RMS. If the MGMT_VLAN is not present, the IMI network values shown above still apply.</p>	SDS Server (DR NOAM)	Network	IP Address	Interface	VLAN Checkbox	DR SDS-A	MGMNT_VLAN	169.254.1.14	bond0	✓	IMI	169.254.100.14	DR SDS-B	MGMNT_VLAN	169.254.1.15	bond0	✓	IMI	169.254.100.15
SDS Server (DR NOAM)	Network	IP Address	Interface	VLAN Checkbox																	
DR SDS-A	MGMNT_VLAN	169.254.1.14	bond0	✓																	
	IMI	169.254.100.14																			
DR SDS-B	MGMNT_VLAN	169.254.1.15	bond0	✓																	
	IMI	169.254.100.15																			

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

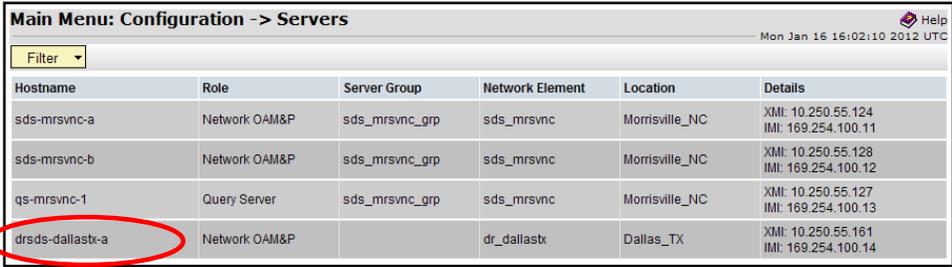
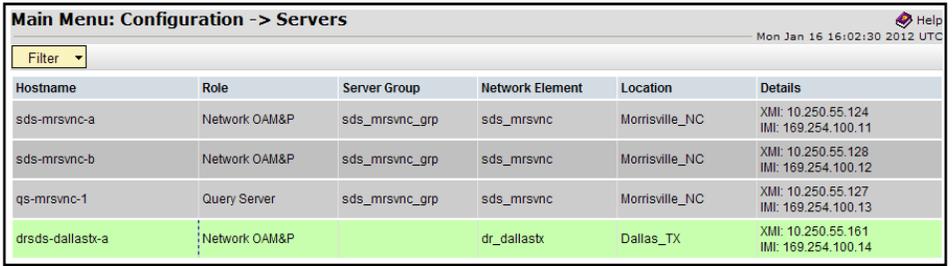
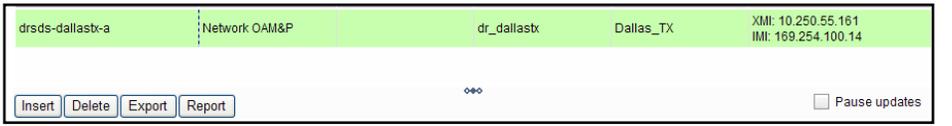
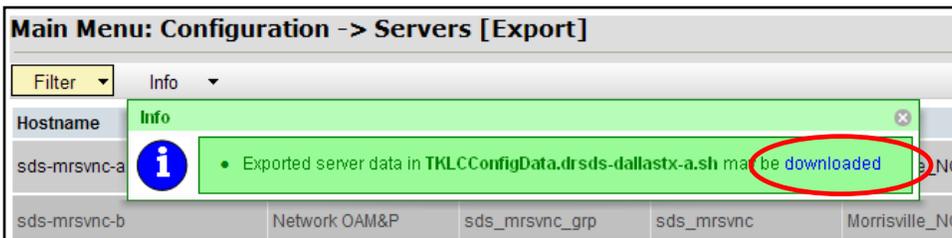
Step	Procedure	Result													
<p>18.</p>	<p>1) Enter the customer assigned XMI IP address for the DR SDS Server.</p> <p>Layer 3 (No VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox.</p> <p>- OR -</p> <p>Layer 2 (VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>SDS Server (DR NOAM)</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">DR SDS NOAM Server (A or B)</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td>✗</td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td>✓</td> </tr> </tbody> </table> <p>!!! CAUTION !!!</p> <p><i>It is crucial that the correct network configuration be selected in Steps 17 & 18 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the DR SDS installation procedures over from the beginning.</i></p>	SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox	DR SDS NOAM Server (A or B)	XMI	No	bond1	✗	Yes	bond0	✓
SDS Server (DR NOAM)	Network	VLAN tagging (on XMI network)	Interface	VLAN Checkbox											
DR SDS NOAM Server (A or B)	XMI	No	bond1	✗											
		Yes	bond0	✓											
<p>19.</p>	<p>SDS Server NOAM A:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>	  													



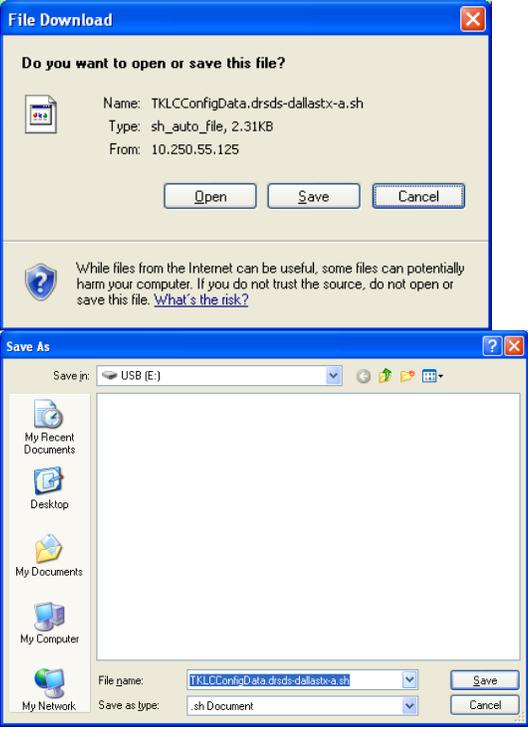
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result															
<p>20.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p>	 <p>Main Menu: Configuration -> Servers [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Pre-Validation passed - Data NOT committed ... <p>Host Name: drsds-dallastx-a * Unique name for the server. [Default = and minus sign. Must start with an alp</p> <p>Interfaces:</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> <p>Apply Cancel</p>	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>Primary SDS VIP:</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>Main Menu: Configuration -> Servers [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> Data committed! <p>Host Name: drsds-dallastx-a * Unique name for the server. Valid characters are alphanumeric and end with</p>															
<p>22.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&P)</p> <ul style="list-style-type: none"> Main Menu <ul style="list-style-type: none"> Administration Configuration <ul style="list-style-type: none"> Network Elements Network Services Servers Server Groups Resource Domains Places Place Associations DSCP Alarms & Events Security Log Status & Manage Measurements Communication Agent SDS <p>Main Menu: Configuration -> Servers</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&P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&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 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																														
<p>23.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>On the “Configuration → Servers” screen, find the newly added DR NOAM server in the list.</p>	 <p>Main Menu: Configuration -> Servers</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&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&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 style="border: 2px solid red;"> <td>drsds-dallastx-a</td> <td>Network OAM&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	drsds-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																											
drsds-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>Primary SDS VIP:</p> <p>Use the cursor to select the new DR NOAM server entry added in the Steps 10 - 21.</p> <p>The row containing the server should now be highlighted.</p>	 <p>Main Menu: Configuration -> Servers</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&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&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 style="background-color: #e0ffe0;"> <td>drsds-dallastx-a</td> <td>Network OAM&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	drsds-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																											
drsds-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>Primary SDS VIP:</p> <p>Select the “Export” dialogue button (bottom left corner of screen).</p>	 <p>drsds-dallastx-a Network OAM&P dr_dallastx Dallas_TX XMI: 10.250.55.161 IMI: 169.254.100.14</p> <p>Insert Delete Export Report Pause updates</p>																														
<p>26.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</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 “downloaded” to download and save the SDS DR NOAM server configuration file.</p>	 <p>Main Menu: Configuration -> Servers [Export]</p> <p>Info</p> <p>Info</p> <p>Exported server data in TKLCConfigData.drsds-dallastx-a.sh may be downloaded</p>																														

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

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

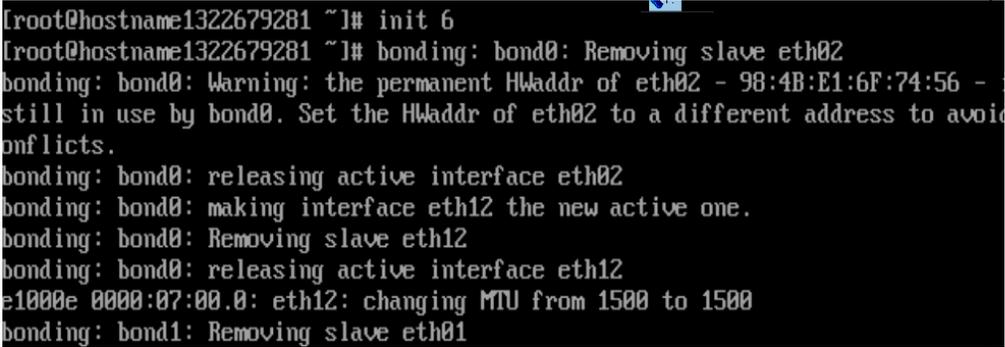
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>30.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of the server.</p>	 <p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p>  <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>31.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Output similar to that shown on the right will appear as the USB flash drive is inserted into the SDS Server front USB port.</p>	<pre>\$ sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through <ENTER></pre> <p>NOTE: Press the <ENTER> key to return to the command prompt.</p>
<p>32.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Verify that the USB flash drive's partition has been mounted by the OS</p>	<pre>\$ df grep sdb /dev/sdb1 2003076 8 2003068 1% /media/sdb1</pre>
<p>33.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Copy the configuration file to the SDS server with the server name as shown in red</p>	<pre>\$ sudo cp -p /media/sdb1/TKLCConfigData.drdsd-dallastx-a.sh /var/TKLC/db/filemgmt/.</pre>

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

Step	Procedure	Result
<p>34.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Copy the server configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p>	<p><i>Example:</i></p> <p>TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.drsds-dallastx-a.sh /var/tmp/TKLCConfigData.sh</pre> <p>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
<p>35.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <p>Broadcast message from admusr (Mon Dec 14 15:47:33 2009):</p> <p>Server configuration completed successfully!</p> <p>See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server.</p> <p><ENTER></p> <p>NOTE: The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.</p>
<p>36.</p> <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Remove the USB flash drive from the USB port on the front panel of OAM server.</p> <p>CAUTION: It is important that the USB flash drive be removed from the server before continuing on to the next step.</p>	 <p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p>  <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p>  <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p>

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

Step	Procedure	Result
37.	<p>SDS Server NOAM A or 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>
38. <input type="checkbox"/>	<p>SDS Server NOAM A or B:</p> <p>If the desired Time Zone was not presented in the previous step...</p> <p>Configure the Time Zone.</p> <p>Otherwise, skip to the next step.</p>	<p><i>Example:</i> <code>\$ sudo set_ini_tz.pl <time_zone></code></p> <p>NOTE: The following command example sets the time to the “UTC” (aka GMT) time zone which is recommended for all sites. The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix H for a list of valid time zones.</p> <pre>\$ sudo set_ini_tz.pl "Etc/UTC"</pre>
39. <input type="checkbox"/>	<p>Server NOAM A:</p> <p>Initiate a reboot of the OAM server.</p>	<pre>\$ sudo init 6</pre>
40. <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Wait ~9 minutes</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	 <pre>[root@hostname1322679281 ~]# init 6 [root@hostname1322679281 ~]# bonding: bond0: Removing slave eth02 bonding: bond0: Warning: the permanent Hwaddr of eth02 - 98:4B:E1:6F:74:56 - still in use by bond0. Set the Hwaddr of eth02 to a different address to avoid conflicts. bonding: bond0: releasing active interface eth02 bonding: bond0: making interface eth12 the new active one. bonding: bond0: Removing slave eth12 bonding: bond0: releasing active interface eth12 e1000e 0000:07:00.0: eth12: changing MTU from 1500 to 1500 bonding: bond1: Removing slave eth01</pre>
41. <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>1) After the reboot, access the command prompt.</p> <p>2) Log into the server as the “admusr” user.</p>	<pre>login: admusr Using keyboard-interactive authentication. Password: <admusr_password></pre>

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

Step	Procedure	Result
42. <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>1) Verify that the IMI IP address input in Step 18 has been applied to “bond0.4”.</p> <p>2) Verify that the XMI IP address input in Step 17 has been applied to “bond1”.</p>	<pre>\$ ifconfig grep in bond0 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2C bond0.4 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2C inet addr:169.254.100.14 Bcast:169.254.100.255 Mask:255.255.255.0 bond1 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2E inet addr:10.250.55.161 Bcast:10.250.55.255 Mask:255.255.255.0 eth01 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2C eth02 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2E eth11 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2C eth12 Link encap:Ethernet HWaddr 98:4B:E1:74:15:2E lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0</pre>
43. <input type="checkbox"/>	<p>SDS DR NOAM Server B:</p> <p>Use the “ntpq” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== = +10.250.32.10 192.5.41.209 2 u 59 64 377 0.142 -2468.3 99.875 *10.250.32.51 192.5.41.209 2 u 58 64 377 0.124 -2528.2 128.432</pre>



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

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

ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 43.

44. <input type="checkbox"/>	<p>SDS DR NOAM Server:</p> <p>Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
---------------------------------	--	--

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

Step	Procedure	Result
45. <input type="checkbox"/>	SDS DR NOAM Server: Exit from the command line to return the server console	<pre>\$ exit logout</pre>
46. <input type="checkbox"/>	<ul style="list-style-type: none"> • Configure DR SDS Server B by repeating steps 9 - 45 of this procedure. 	
	<p>IF 4948E-F SWITCH CONFIGURATION HAS NOT BEEN COMPLETED PRIOR TO THIS STEP, STOP AND EXECUTE THE FOLLOWING STEPS:</p> <p>4) APPENDIX E.1 5) APPENDIX E.2 (<i>Appendix E.2 references Appendix E.3 where applicable</i>). 6) APPENDIX E.4</p>	
47. <input type="checkbox"/>	DR SDS Server NOAM A: From DR SDS Server NOAM A , “ping” the IMI IP address DR SDS NOAM Server B .	<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<CTRL-C> --- 169.254.100.15 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.011/0.017/0.023/0.005 ms</pre>
48. <input type="checkbox"/>	DR SDS NOAM Server(s): A & B Use “ping” to verify that the DR SDS NOAM Server can now reach the local XMI Gateway address .	<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<CTRL-C> --- 10.250.55.161 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.012/0.017/0.022/0.006 ms</pre>

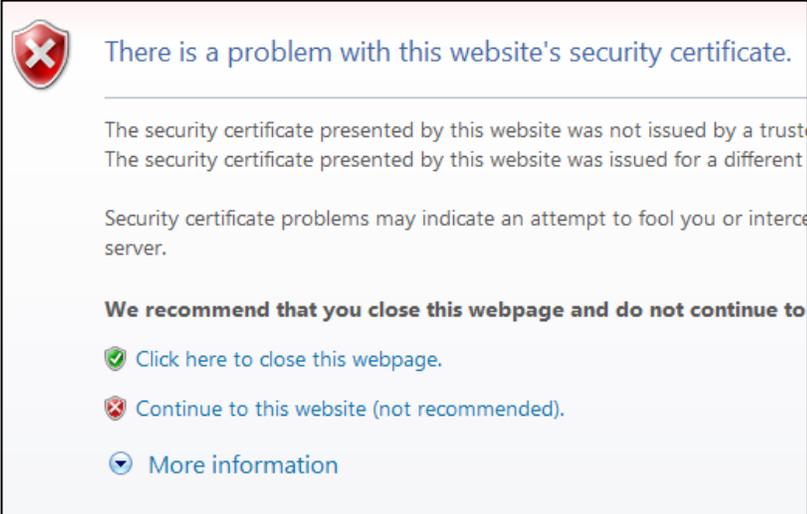
Procedure 5: Configuring the DR NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
49.	<p>DR SDS Server(s): A & B</p> <p>Use “ping” to verify that the DR SDS Server can now reach the Primary SDS VIP address.</p>	<pre>\$ ping -c 5 10.250.55.126 PING 10.250.55.126 (10.250.55.126) 56(84) bytes of data. 64 bytes from 10.250.55.126: icmp_seq=1 ttl=64 time=0.021 ms 64 bytes from 10.250.55.126: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.250.55.126: icmp_seq=3 ttl=64 time=0.017 ms 64 bytes from 10.250.55.126: icmp_seq=4 ttl=64 time=0.022 ms 64 bytes from 10.250.55.126: icmp_seq=5 ttl=64 time=0.012 ms<CTRL-C> --- 10.250.55.126 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.012/0.017/0.022/0.006 ms</pre>
THIS PROCEDURE HAS BEEN COMPLETED		

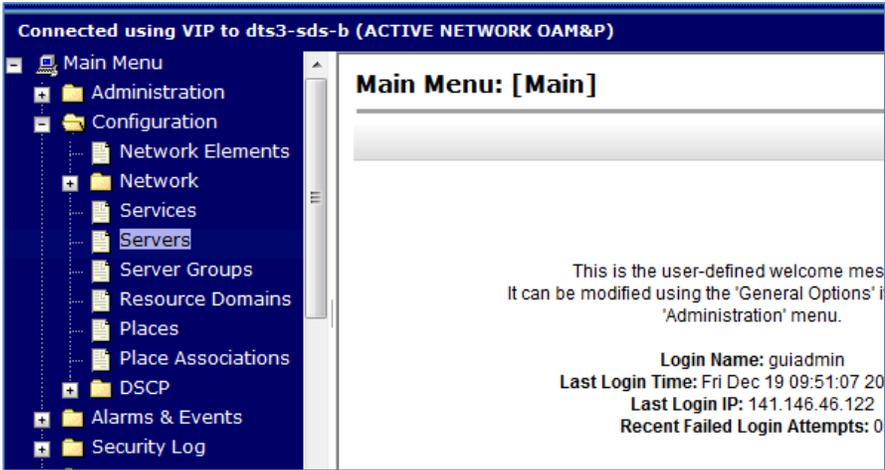
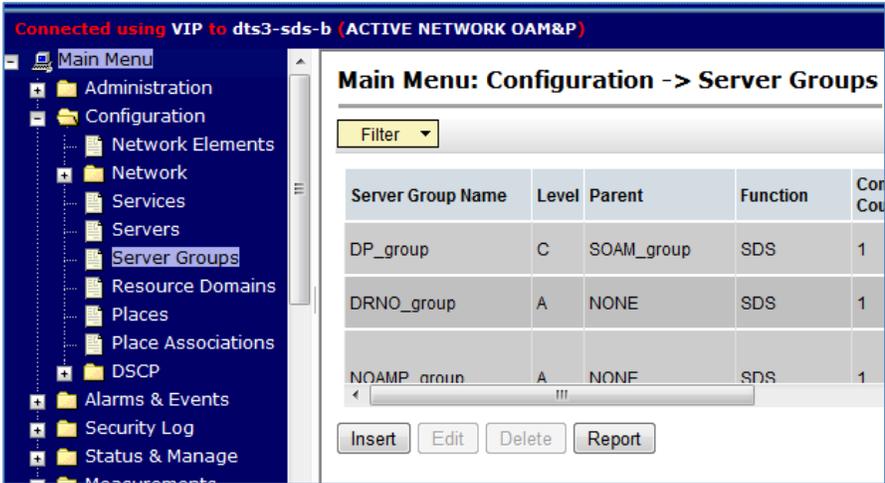
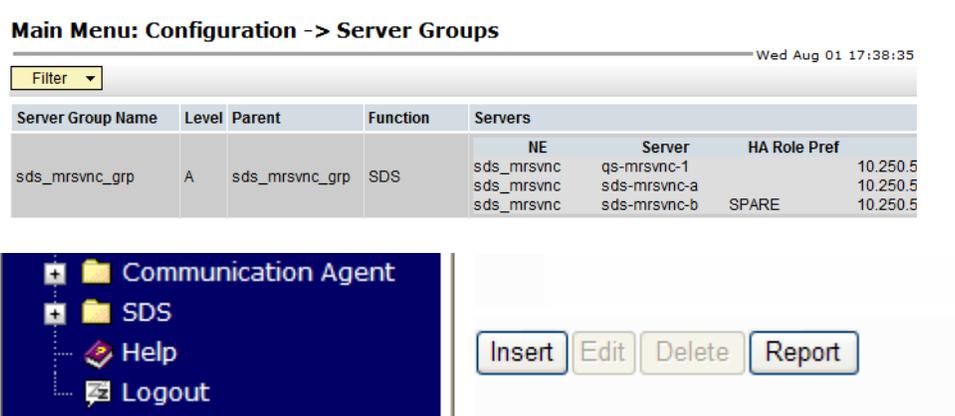
5.5 OAM Pairing for DR SDS NOAM site

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

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

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

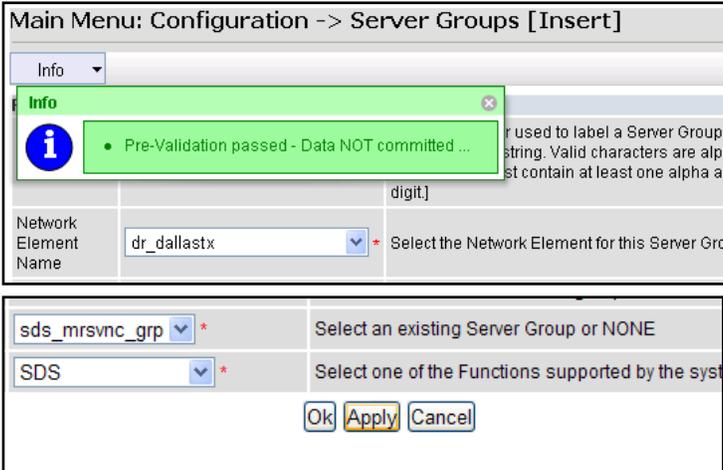
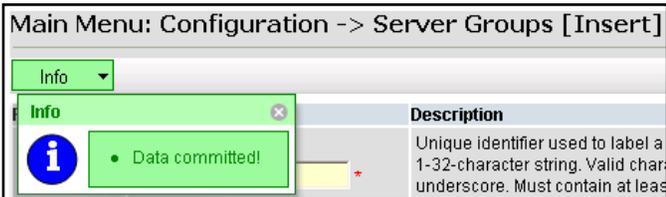
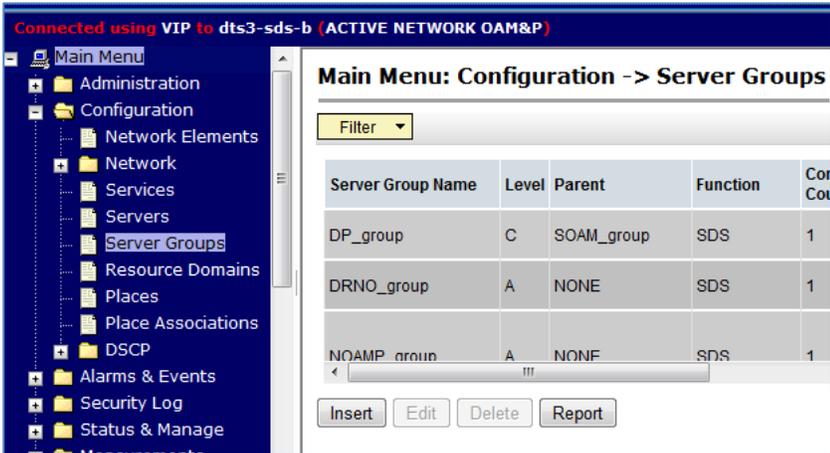
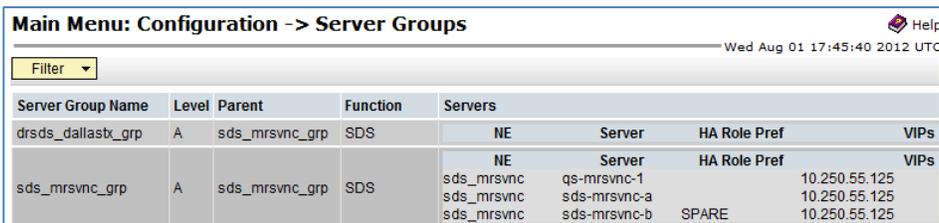
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																										
<p>3.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: [Main]</p> <p>This is the user-defined welcome mes It can be modified using the 'General Options' i 'Administration' menu.</p> <p>Login Name: guidadmin Last Login Time: Fri Dec 19 09:51:07 20 Last Login IP: 141.146.46.122 Recent Failed Login Attempts: 0</p>																										
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p><u>Main Menu</u> → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Configuration -> Server Groups</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Con 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> <p>Buttons: Insert, Edit, Delete, Report</p>	Server Group Name	Level	Parent	Function	Con 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	Con Cou																								
DP_group	C	SOAM_group	SDS	1																								
DRNO_group	A	NONE	SDS	1																								
NOAMP_group	A	NONE	SDS	1																								
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <p>Wed Aug 01 17:38:35</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>sds_mrsvnc_grp</td> <td>A</td> <td>sds_mrsvnc_grp</td> <td>SDS</td> <td> <table border="1"> <thead> <tr> <th>NE</th> <th>Server</th> <th>HA Role</th> <th>Pref</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td></td> <td>10.250.5</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td></td> <td>10.250.5</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>SPARE</td> <td>10.250.5</td> </tr> </tbody> </table> </td> </tr> </tbody> </table> <p>Buttons: Insert, Edit, Delete, Report</p>	Server Group Name	Level	Parent	Function	Servers	sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	<table border="1"> <thead> <tr> <th>NE</th> <th>Server</th> <th>HA Role</th> <th>Pref</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td></td> <td>10.250.5</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td></td> <td>10.250.5</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>SPARE</td> <td>10.250.5</td> </tr> </tbody> </table>	NE	Server	HA Role	Pref	sds_mrsvnc	qs-mrsvnc-1		10.250.5	sds_mrsvnc	sds-mrsvnc-a		10.250.5	sds_mrsvnc	sds-mrsvnc-b	SPARE	10.250.5
Server Group Name	Level	Parent	Function	Servers																								
sds_mrsvnc_grp	A	sds_mrsvnc_grp	SDS	<table border="1"> <thead> <tr> <th>NE</th> <th>Server</th> <th>HA Role</th> <th>Pref</th> </tr> </thead> <tbody> <tr> <td>sds_mrsvnc</td> <td>qs-mrsvnc-1</td> <td></td> <td>10.250.5</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-a</td> <td></td> <td>10.250.5</td> </tr> <tr> <td>sds_mrsvnc</td> <td>sds-mrsvnc-b</td> <td>SPARE</td> <td>10.250.5</td> </tr> </tbody> </table>	NE	Server	HA Role	Pref	sds_mrsvnc	qs-mrsvnc-1		10.250.5	sds_mrsvnc	sds-mrsvnc-a		10.250.5	sds_mrsvnc	sds-mrsvnc-b	SPARE	10.250.5								
NE	Server	HA Role	Pref																									
sds_mrsvnc	qs-mrsvnc-1		10.250.5																									
sds_mrsvnc	sds-mrsvnc-a		10.250.5																									
sds_mrsvnc	sds-mrsvnc-b	SPARE	10.250.5																									

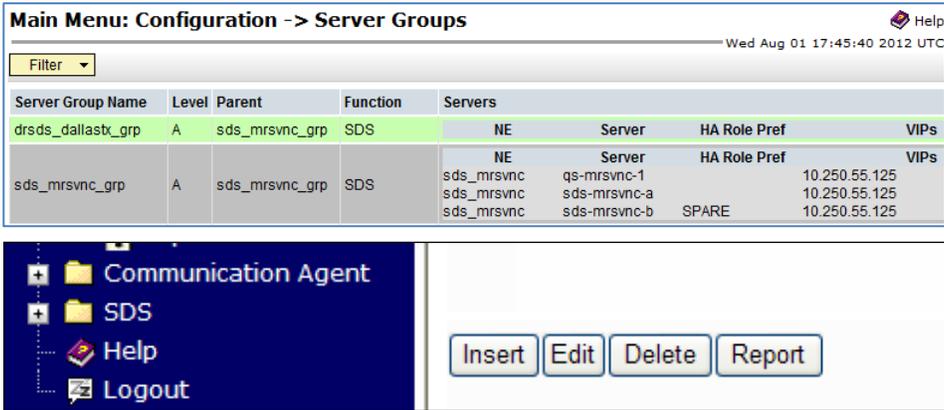
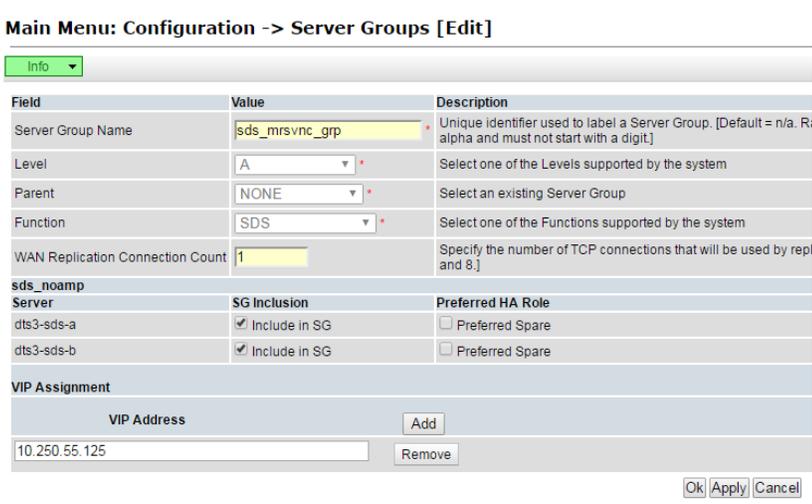
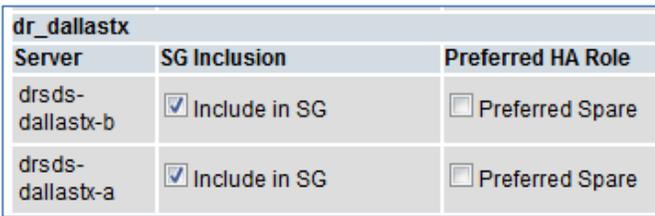
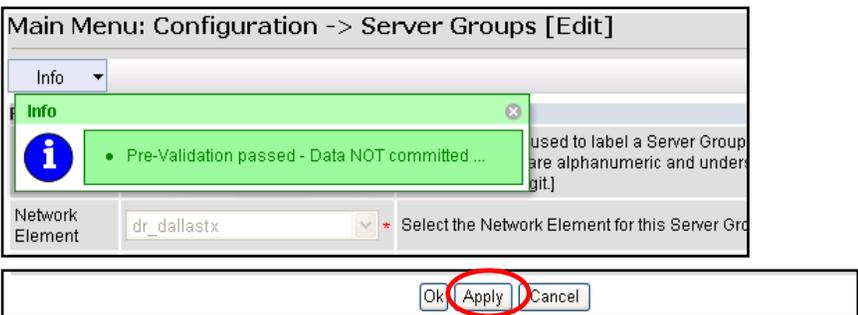
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																		
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Insert]” screen as shown on the right.</p> <p>NOTE: Leave the “WAN Replication Connection Count” blank (it will default to 1).</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name</td> <td><input type="text"/></td> <td>Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.]</td> </tr> <tr> <td>Level</td> <td>- Select Level - *</td> <td>Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.]</td> </tr> <tr> <td>Parent</td> <td>- Select Parent - *</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>- Select Function - *</td> <td>Select one of the Functions supported by the system</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections associated with this Server Group</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p>	Field	Value	Description	Server Group Name	<input type="text"/>	Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.]	Level	- Select Level - *	Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.]	Parent	- Select Parent - *	Select an existing Server Group or NONE	Function	- Select Function - *	Select one of the Functions supported by the system	WAN Replication Connection Count	1	Specify the number of TCP connections associated with this Server Group
Field	Value	Description																		
Server Group Name	<input type="text"/>	Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.]																		
Level	- Select Level - *	Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.]																		
Parent	- Select Parent - *	Select an existing Server Group or NONE																		
Function	- Select Function - *	Select one of the Functions supported by the system																		
WAN Replication Connection Count	1	Specify the number of TCP connections associated with this Server Group																		
<p>7.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Input the Server Group Name.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name</td> <td>drdsds_dallastx_grp *</td> <td>Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.]</td> </tr> </tbody> </table>	Field	Value	Description	Server Group Name	drdsds_dallastx_grp *	Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.]												
Field	Value	Description																		
Server Group Name	drdsds_dallastx_grp *	Unique identifier used to label a Server Group. Valid characters are alphanumeric and must not start with a digit.]																		
<p>8.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select “A” on the “Level” pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Level</td> <td>- Select Level - * - Select Level - A</td> <td>Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.]</td> </tr> <tr> <td>Parent</td> <td>- Select Parent - *</td> <td>Select an existing Server Group or NONE</td> </tr> </tbody> </table>	Level	- Select Level - * - Select Level - A	Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.]	Parent	- Select Parent - *	Select an existing Server Group or NONE												
Level	- Select Level - * - Select Level - A	Select one of the Levels supported by the system. Level B groups are optional and contain MP servers.]																		
Parent	- Select Parent - *	Select an existing Server Group or NONE																		
<p>9.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select Parent “NONE” on the pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Parent</td> <td>- Select Parent - * - Select Parent - NONE</td> <td>Select an existing Server Group or NONE</td> </tr> <tr> <td>Function</td> <td>- Select Function - *</td> <td>Select one of the Functions supported by the system</td> </tr> </tbody> </table>	Parent	- Select Parent - * - Select Parent - NONE	Select an existing Server Group or NONE	Function	- Select Function - *	Select one of the Functions supported by the system												
Parent	- Select Parent - * - Select Parent - NONE	Select an existing Server Group or NONE																		
Function	- Select Function - *	Select one of the Functions supported by the system																		
<p>10.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select “SDS” on the “Function” pull-down menu.</p>	<table border="1"> <tbody> <tr> <td>Function</td> <td>- Select Function - * - 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	- Select Function - * - Select Function - NONE SDS	Select one of the Functions supported by the system															
Function	- Select Function - * - Select Function - NONE SDS	Select one of the Functions supported by the system																		

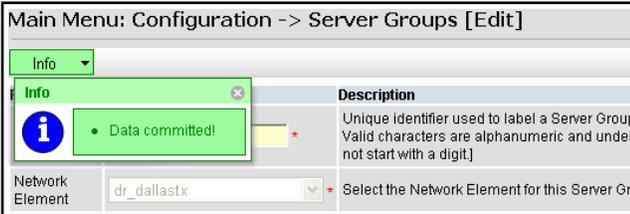
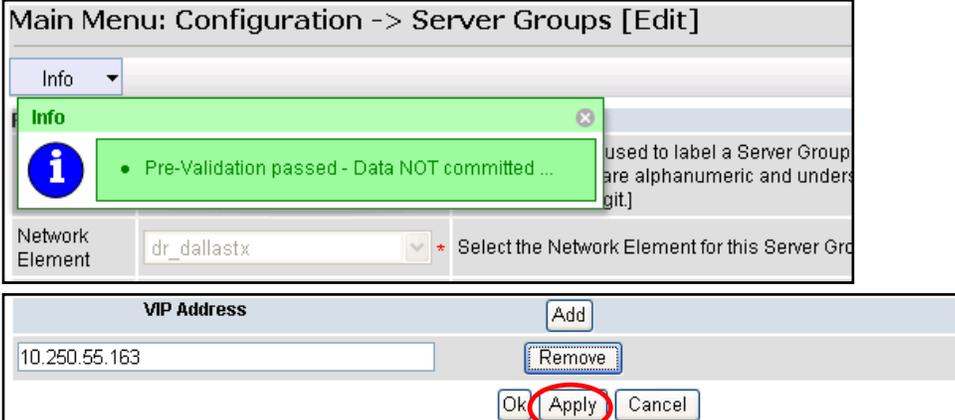
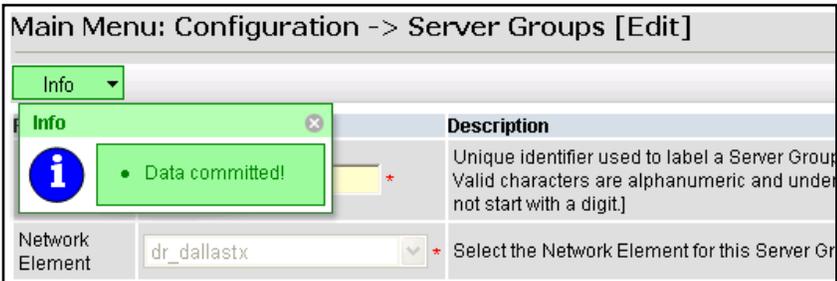
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																														
<p>11.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>																															
<p>12.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>																															
<p>13.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	 <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>	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>Primary SDS VIP:</p> <p>The Server Group entry should be shown on the “Server Groups” 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>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	drsds_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																												
drsds_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																												

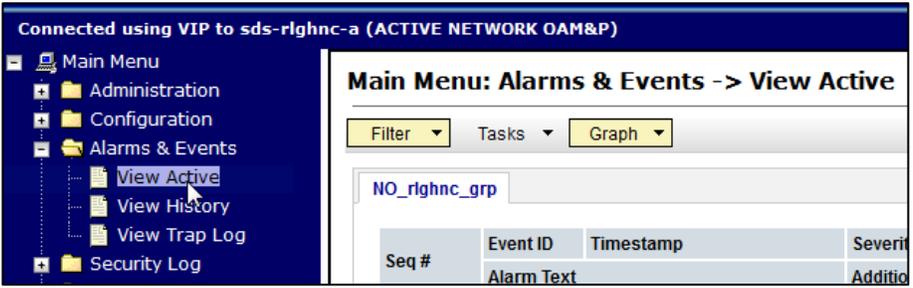
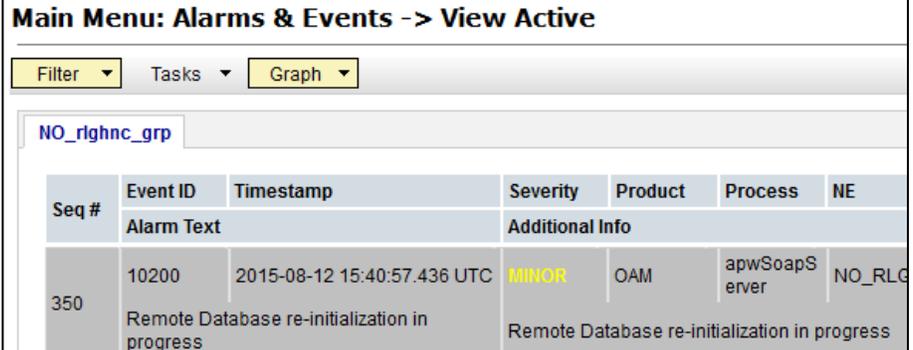
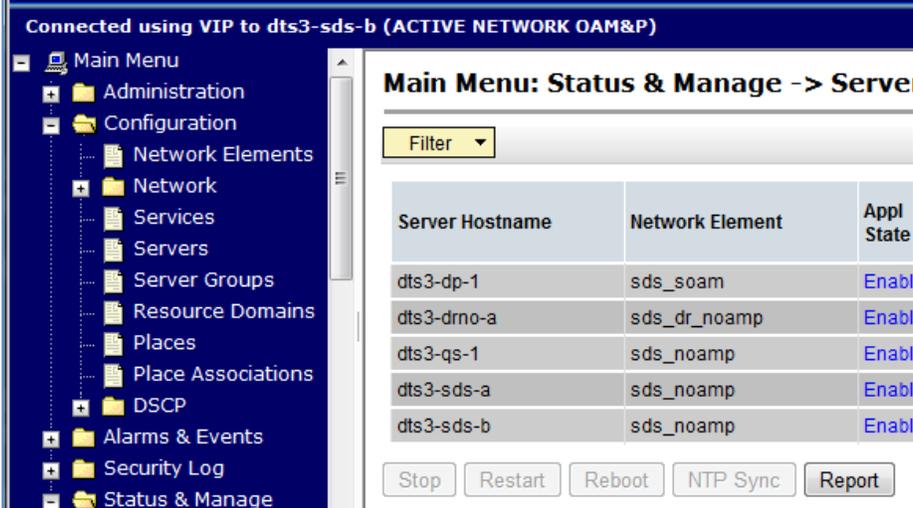
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
<p>15.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Select the Server Group entry applied in Step 12. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>	
<p>16.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	
<p>17.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select the “A” server and the “B” server from the list of “Servers” by clicking the check box next to their names.</p>	
<p>18.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	

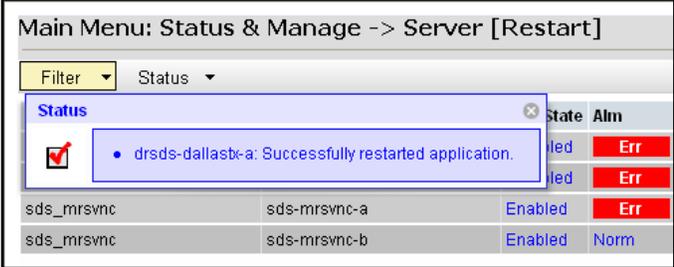
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

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

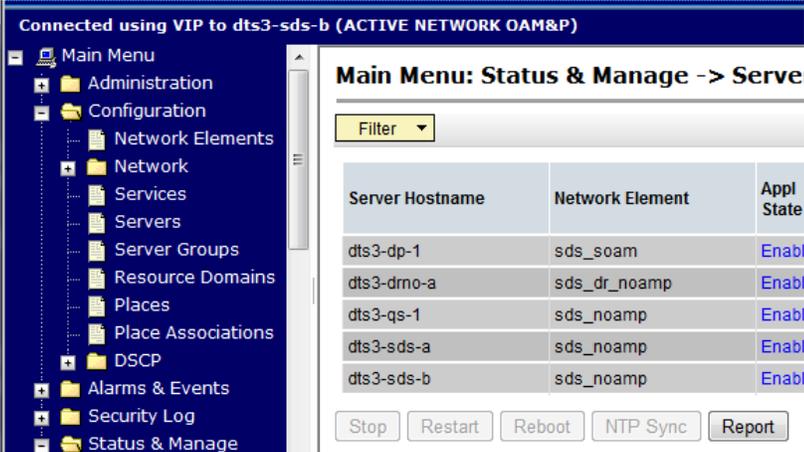
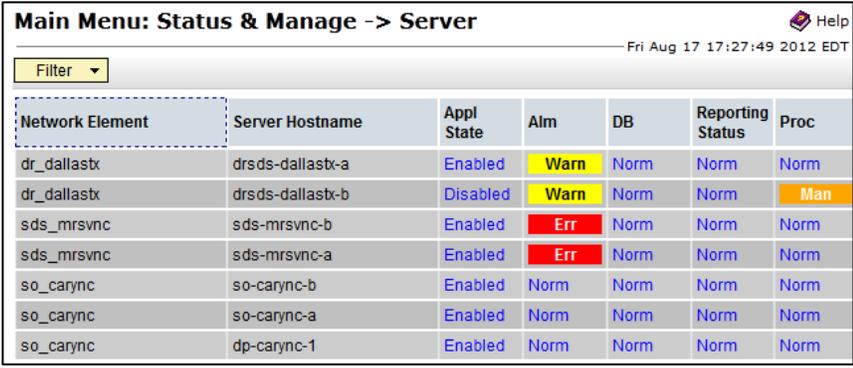
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																					
24.	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to sds-rlghnc-a (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Alarms & Events -> View Active</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></td> <td>Alarm Text</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Seq #	Event ID	Timestamp	Severity	Product	Process	NE		Alarm Text												
Seq #	Event ID	Timestamp	Severity	Product	Process	NE																	
	Alarm Text																						
25.	<p>Primary SDS NOAM VIP:</p> <p>Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) alarms are present with the DR SDS NOAM Server hostnames in the "Instance" field..</p>	 <p>Main Menu: Alarms & Events -> View Active</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_RLGH</td> </tr> <tr> <td></td> <td>Remote Database re-initialization in progress</td> <td></td> <td></td> <td></td> <td>Remote Database re-initialization in progress</td> <td></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_RLGH		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_RLGH																	
	Remote Database re-initialization in progress				Remote Database re-initialization in progress																		
<div style="display: flex; align-items: center;">  <p>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS.</p> <p>DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR BOTH DR SDS NOAM SERVERS.</p> </div>																							
26.	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </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>Buttons: 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																					

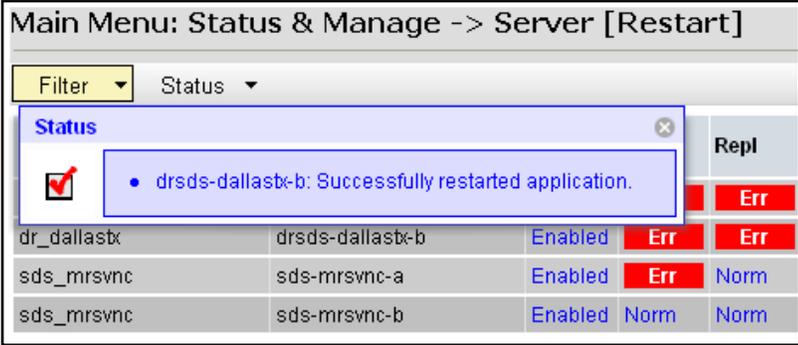
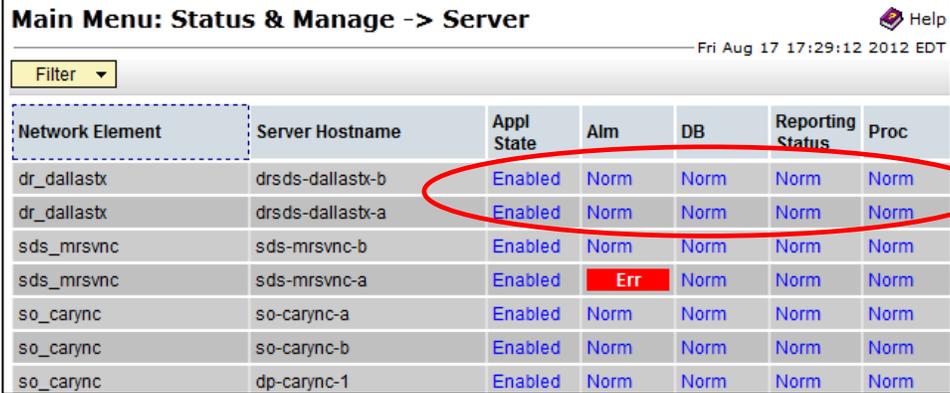
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result																																																								
27. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) The “A” and “B” DR SDS servers should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</p>	<table border="1"> <thead> <tr> <th>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-b</td> <td>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>dr_dallastx</td> <td>drsds-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	drsds-dallastx-b	Disabled	Warn	Norm	Norm	Man	dr_dallastx	drsds-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	drsds-dallastx-b	Disabled	Warn	Norm	Norm	Man																																																				
dr_dallastx	drsds-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																																																				
28. <input type="checkbox"/>	<p>Primary SDS NOAM VIP:</p> <p>1) Using the mouse, select DR SDS NOAM Server A. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for DR SDS NOAM Server A stating: “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>drsds-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>drsds-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	drsds-dallastx-a	Disabled	Warn	Norm	Norm	Man	dr_dallastx	drsds-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	drsds-dallastx-a	Disabled	Warn	Norm	Norm	Man																																																				
dr_dallastx	drsds-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																																																				

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

Step	Procedure	Result																																																								
<p>29.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>																																																									
<p>30.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for NOAM Server A before proceeding to the next Step.</p>	 <table border="1"> <thead> <tr> <th>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>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>dr_dallastx</td> <td>drds-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	drds-dallastx-a	Enabled	Warn	Norm	Norm	Norm	dr_dallastx	drds-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	drds-dallastx-a	Enabled	Warn	Norm	Norm	Norm																																																				
dr_dallastx	drds-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																																																				

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

Step	Procedure	Result																																																								
<p>31.</p> <p><input type="checkbox"/></p>	<p>Primary SDS NOAM VIP:</p> <p>1) Using the mouse, select DR NOAM Server B. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SDS DR NOAM Server B stating: “Successfully restarted application”.</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>drdsds-dallastx-a</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr style="background-color: #e0ffe0;"> <td>dr_dallastx</td> <td>drdsds-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	Aim	DB	Reporting Status	Proc	dr_dallastx	drdsds-dallastx-a	Enabled	Warn	Norm	Norm	Norm	dr_dallastx	drdsds-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	Aim	DB	Reporting Status	Proc																																																				
dr_dallastx	drdsds-dallastx-a	Enabled	Warn	Norm	Norm	Norm																																																				
dr_dallastx	drdsds-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>32.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Aim, DB, Reporting Status & Proc” status columns all show “Norm” for NOAM Server A and NOAM Server B 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>Aim</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr style="border: 2px solid red;"> <td>dr_dallastx</td> <td>drdsds-dallastx-b</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr style="border: 2px solid red;"> <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-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	drdsds-dallastx-b	Enabled	Norm	Norm	Norm	Norm	dr_dallastx	drdsds-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	drdsds-dallastx-b	Enabled	Norm	Norm	Norm	Norm																																																				
dr_dallastx	drdsds-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																																																				

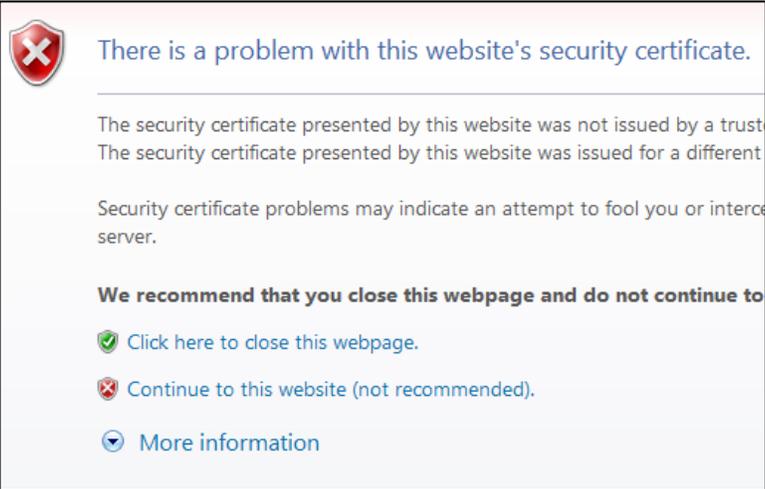
Procedure 6: Pairing the DR SDS NOAM Servers (DR SDS NOAM site only)

Step	Procedure	Result
33. <input type="checkbox"/>	Primary SDS VIP: Add the Query Server for the DR SDS Server	<ul style="list-style-type: none"> Repeat all steps listed in Procedure 4 except use the DR SDS NOAM NE and Server Group instead of the Primary SDS NOAM NE (1st SDS NOAM site) and Server Group.
THIS PROCEDURE HAS BEEN COMPLETED		

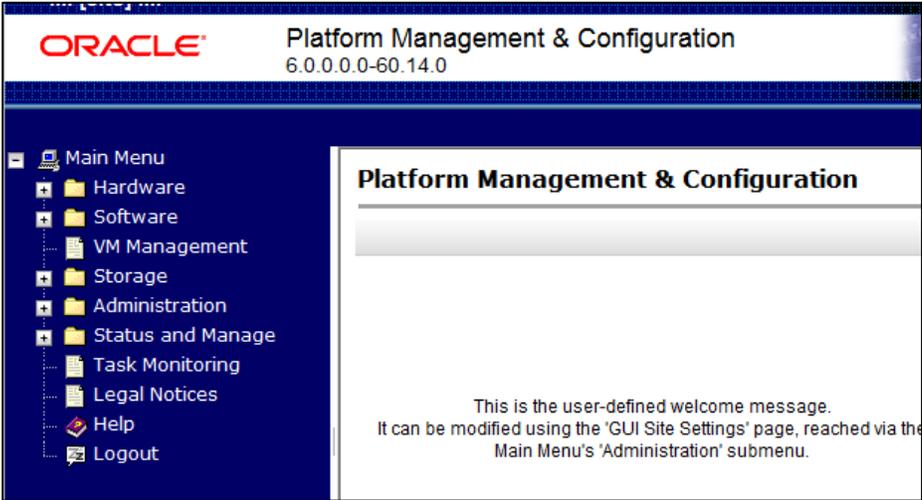
5.6 Add SDS software images to PMAC servers (All SOAM sites)

This procedure must be done once for each DSR signaling site, which is also an SDS SOAM site.
 This procedure assumes that the PMAC server has already been installed, as described in [6]

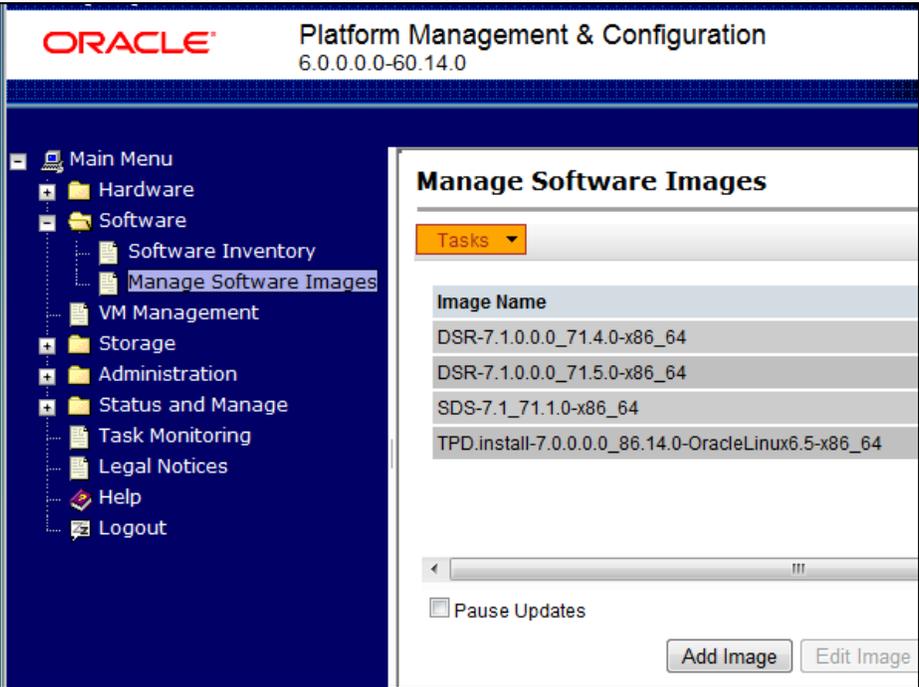
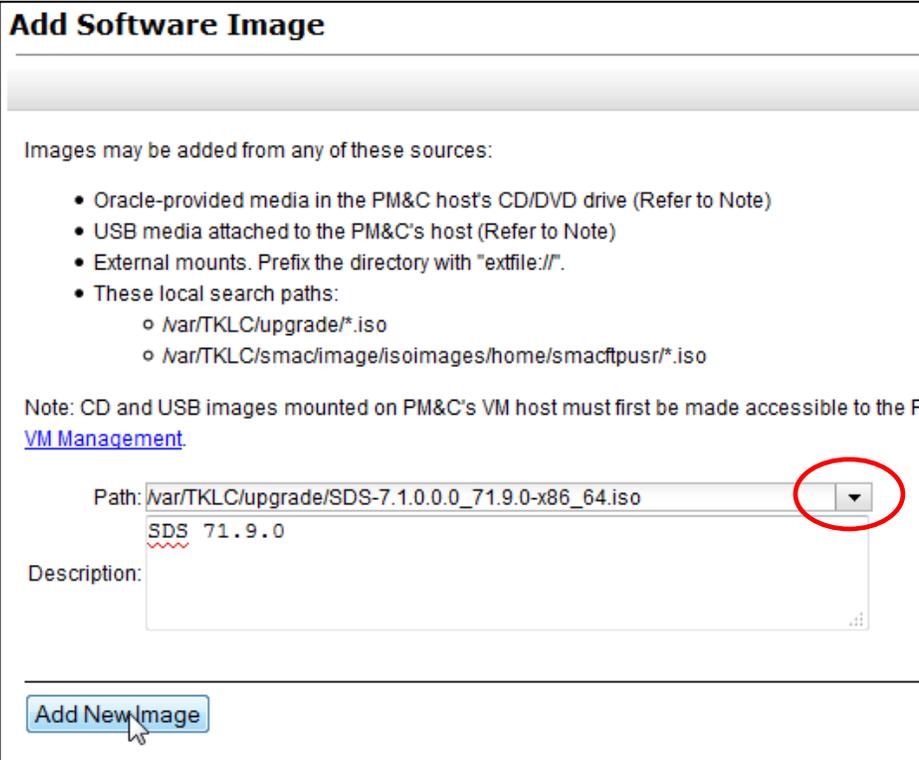
Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result
1.	Active SDS VIP (CLI): 1) Access the command prompt. 2) Log into the HP server as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password> \$
2.	Active SDS VIP (CLI): "cd" into the /var/TKLC/upgrade/ directory.	\$ cd /var/TKLC/upgrade/ \$
3.	Active SDS VIP (CLI): Verify that the SDS ISO file is present.	\$ ls SDS-7.1.0.0.0_71.9.0-x86_64.iso \$
4.	Active SDS VIP (CLI): "scp" the SDS ISO file to the PMAC Server as shown to the right..	\$ scp -p SDS-7.1.0.0.0_71.9.0-x86_64.iso admusr@<PMAC_Mgmt_IP_address>:/var/TKLC/upgrade/ Password: <admusr_password> SDS-7.1.0.0.0_71.9.0-x86_64.iso 100% 853MB 53.3MB/s 00:16 \$
5.	PMAC Server GUI: Launch an approved web browser and connect to the Mgmt IP Address of the PMAC Guest server at the SOAM site. NOTE: <i>If presented with the "security certificate" warning screen shown to the right, choose the following option: "Continue to this website (not recommended)".</i>	

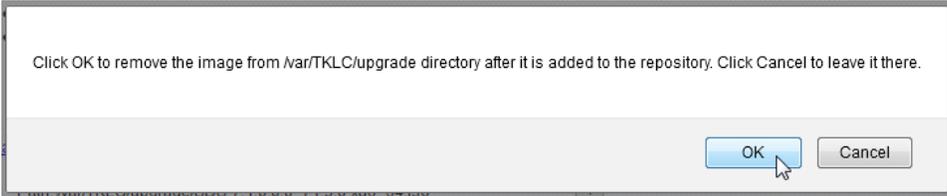
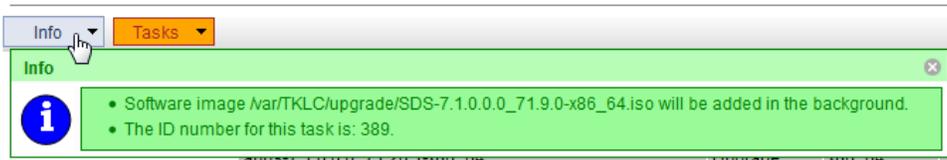
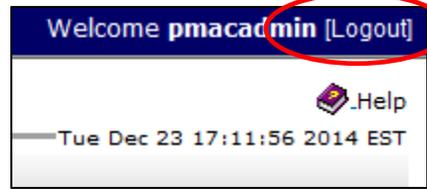
Procedure 7: Add SDS software images to PMAC servers for DSR signaling sites

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the PMAC using the default user and password.</p>	
<p>7.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</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>PMAC Server GUI:</p> <p>1) Select...</p> <p><u>Main Menu</u> → Software → Manage Software Images</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>PMAC Server GUI:</p> <p>1) Click the “Path:” pull-down menu and select the SDS ISO file from the /var/TKLC/upgrade directory.</p> <p>2) Use the last 3 places of the SDS release number to add a comment in the Description 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>PMAC Server GUI:</p> <p>Click the “OK” button on the confirmation dialogue box to remove the source image after it has been successfully added to the SW Inventory.</p>	 <p>Click OK to remove the image from /var/TKLC/upgrade directory after it is added to the repository. Click Cancel to leave it there.</p>																																																
11.	<p>PMAC Server GUI:</p> <p>An info message will be raised to show a new background task.</p>	<p>Manage Software Images</p>  <p>Info</p> <ul style="list-style-type: none"> • Software image /var/TKLC/upgrade/SDS-7.1.0.0_71.9.0-x86_64.iso will be added in the background. • The ID number for this task is: 389. 																																																
12.	<p>PMAC Server GUI:</p> <p>Watch the extraction progress in the lower task list on the same page.</p>	<table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>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>PMAC Server GUI:</p> <p>When the extraction task is complete, a new software image will be displayed.</p>	<table border="1"> <thead> <tr> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>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>PMAC Server GUI:</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>THIS PROCEDURE HAS BEEN COMPLETED</p>																																																		

5.7 OAM Installation for SOAM sites (All SOAM sites)

Assumptions:

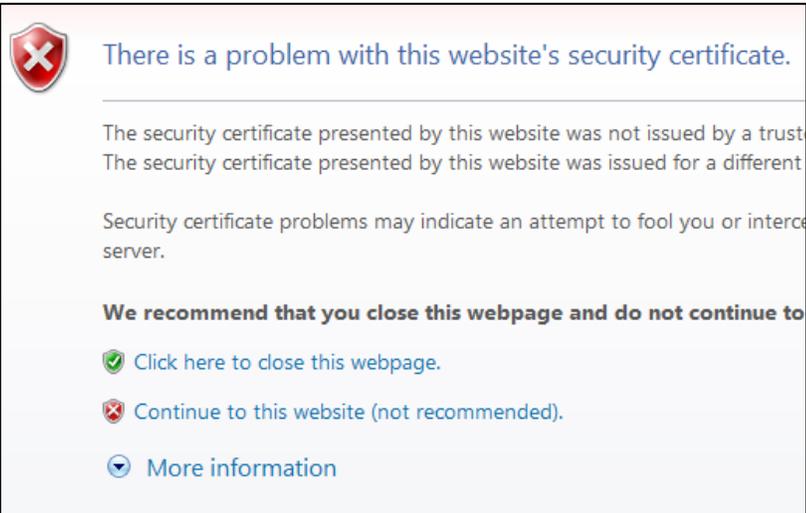
- This procedure assumes that the SOAM Network Element XML file for the SOAM site has previously been created, as described in **Appendix F**.
- This procedure assumes that the Network Element XML files are either on a USB flash drive or the laptop’s hard drive. The steps are written as if the XML files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

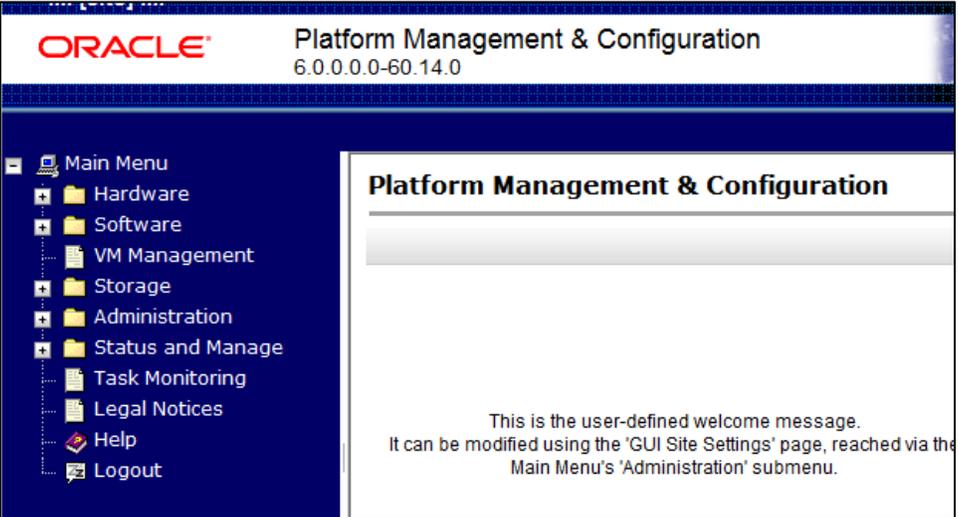
This procedure assumes that the DSR 7.1 or later OAM has already been installed in a virtual environment on the server blade, as described in as described in [6].

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.

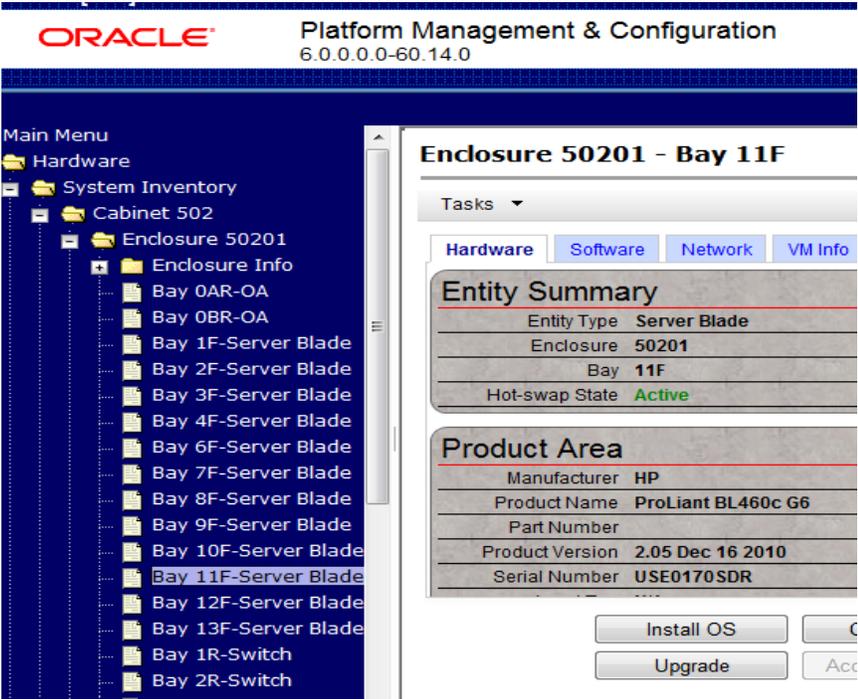
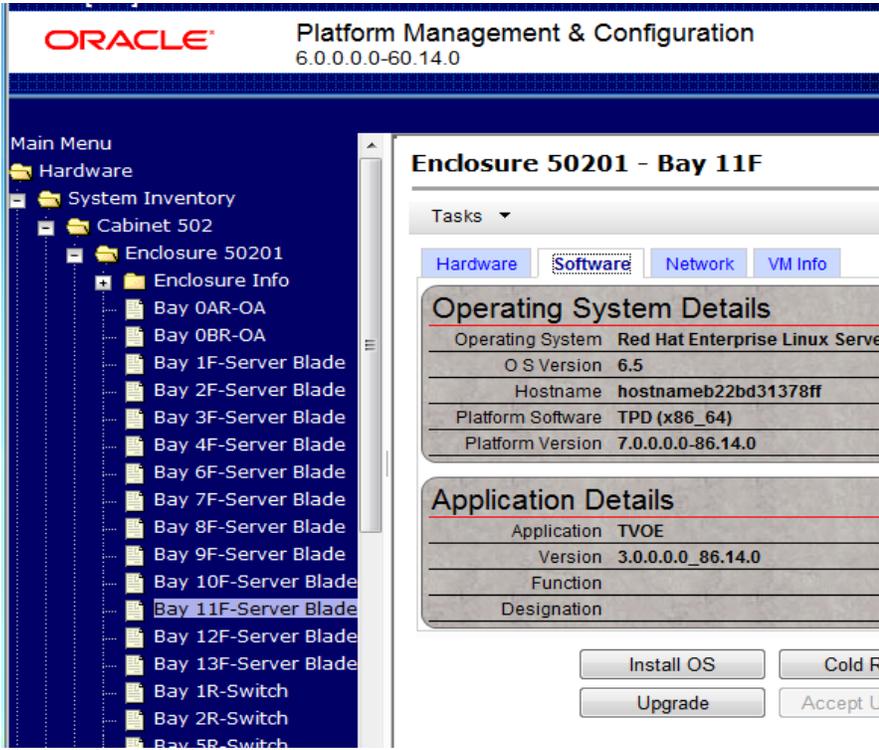
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>PMAC Server GUI:</p> <p>Launch an approved web browser and connect to the Mgmt IP Address of the PMAC server at the SOAM site</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	

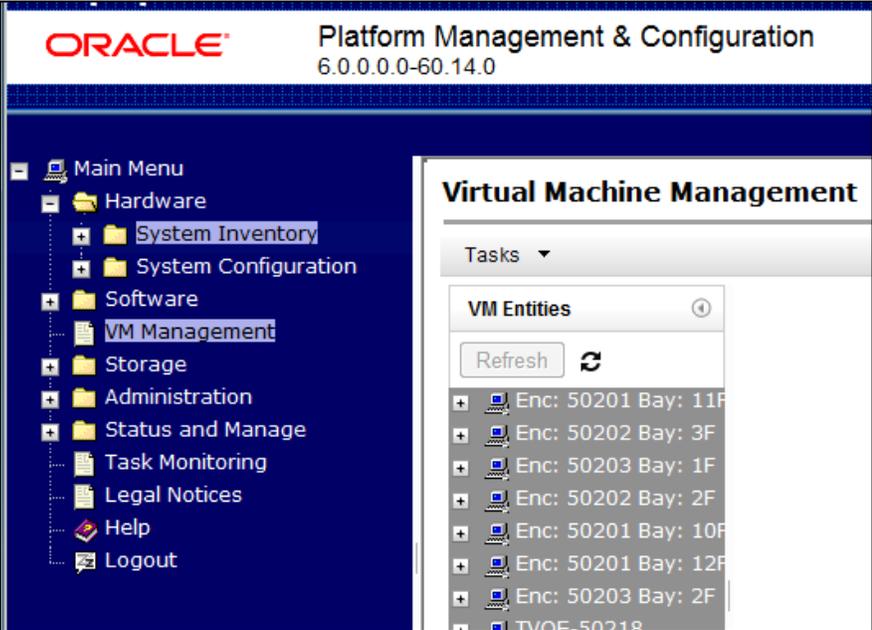
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

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

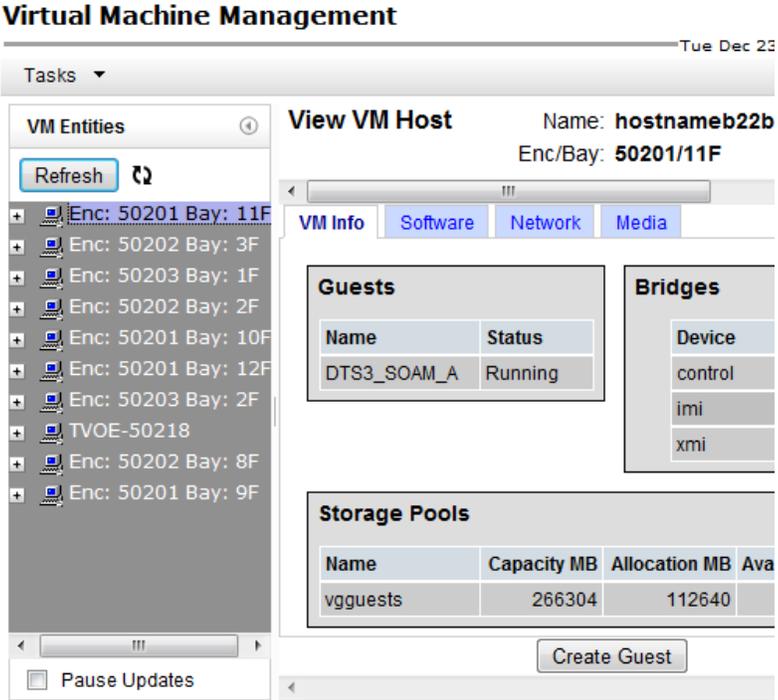
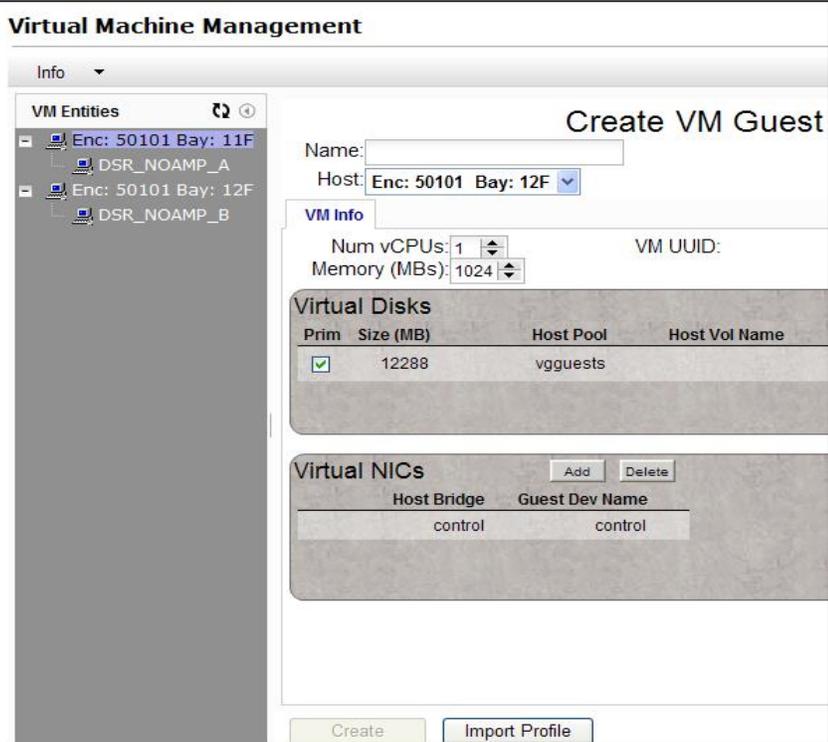
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																		
<p>4.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>Select desired OAM server blade...</p> <p>Main Menu</p> <ul style="list-style-type: none"> → Hardware → System Inventory → <Enclosure> → <Server Blade> <p>...as shown on the right.</p>	 <p>ORACLE Platform Management & Configuration 6.0.0.0.0-60.14.0</p> <p>Main Menu</p> <ul style="list-style-type: none"> Hardware System Inventory <ul style="list-style-type: none"> Cabinet 502 <ul style="list-style-type: none"> Enclosure 50201 <ul style="list-style-type: none"> Enclosure Info <ul style="list-style-type: none"> Bay 0AR-OA Bay 0BR-OA Bay 1F-Server Blade Bay 2F-Server Blade Bay 3F-Server Blade Bay 4F-Server Blade Bay 6F-Server Blade Bay 7F-Server Blade Bay 8F-Server Blade Bay 9F-Server Blade Bay 10F-Server Blade Bay 11F-Server Blade Bay 12F-Server Blade Bay 13F-Server Blade Bay 1R-Switch Bay 2R-Switch <p>Enclosure 50201 - Bay 11F</p> <p>Tasks</p> <p>Hardware Software Network VM Info</p> <p>Entity Summary</p> <table border="1"> <tr><td>Entity Type</td><td>Server Blade</td></tr> <tr><td>Enclosure</td><td>50201</td></tr> <tr><td>Bay</td><td>11F</td></tr> <tr><td>Hot-swap State</td><td>Active</td></tr> </table> <p>Product Area</p> <table border="1"> <tr><td>Manufacturer</td><td>HP</td></tr> <tr><td>Product Name</td><td>ProLiant BL460c G6</td></tr> <tr><td>Part Number</td><td></td></tr> <tr><td>Product Version</td><td>2.05 Dec 16 2010</td></tr> <tr><td>Serial Number</td><td>USE0170SDR</td></tr> </table> <p>Install OS Upgrade</p>	Entity Type	Server Blade	Enclosure	50201	Bay	11F	Hot-swap State	Active	Manufacturer	HP	Product Name	ProLiant BL460c G6	Part Number		Product Version	2.05 Dec 16 2010	Serial Number	USE0170SDR
Entity Type	Server Blade																			
Enclosure	50201																			
Bay	11F																			
Hot-swap State	Active																			
Manufacturer	HP																			
Product Name	ProLiant BL460c G6																			
Part Number																				
Product Version	2.05 Dec 16 2010																			
Serial Number	USE0170SDR																			
<p>5.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>Select the Software tab.</p> <p>...as shown on the right.</p> <p>Verify that TVOE application has been installed.</p>	 <p>ORACLE Platform Management & Configuration 6.0.0.0.0-60.14.0</p> <p>Main Menu</p> <ul style="list-style-type: none"> Hardware System Inventory <ul style="list-style-type: none"> Cabinet 502 <ul style="list-style-type: none"> Enclosure 50201 <ul style="list-style-type: none"> Enclosure Info <ul style="list-style-type: none"> Bay 0AR-OA Bay 0BR-OA Bay 1F-Server Blade Bay 2F-Server Blade Bay 3F-Server Blade Bay 4F-Server Blade Bay 6F-Server Blade Bay 7F-Server Blade Bay 8F-Server Blade Bay 9F-Server Blade Bay 10F-Server Blade Bay 11F-Server Blade Bay 12F-Server Blade Bay 13F-Server Blade Bay 1R-Switch Bay 2R-Switch Bay 5R-Switch <p>Enclosure 50201 - Bay 11F</p> <p>Tasks</p> <p>Hardware Software Network VM Info</p> <p>Operating System Details</p> <table border="1"> <tr><td>Operating System</td><td>Red Hat Enterprise Linux Server</td></tr> <tr><td>O S Version</td><td>6.5</td></tr> <tr><td>Hostname</td><td>hostnameb22bd31378ff</td></tr> <tr><td>Platform Software</td><td>TPD (x86_64)</td></tr> <tr><td>Platform Version</td><td>7.0.0.0.0-86.14.0</td></tr> </table> <p>Application Details</p> <table border="1"> <tr><td>Application</td><td>TVOE</td></tr> <tr><td>Version</td><td>3.0.0.0.0_86.14.0</td></tr> <tr><td>Function</td><td></td></tr> <tr><td>Designation</td><td></td></tr> </table> <p>Install OS Upgrade Cold R Accept U</p>	Operating System	Red Hat Enterprise Linux Server	O S Version	6.5	Hostname	hostnameb22bd31378ff	Platform Software	TPD (x86_64)	Platform Version	7.0.0.0.0-86.14.0	Application	TVOE	Version	3.0.0.0.0_86.14.0	Function		Designation	
Operating System	Red Hat Enterprise Linux Server																			
O S Version	6.5																			
Hostname	hostnameb22bd31378ff																			
Platform Software	TPD (x86_64)																			
Platform Version	7.0.0.0.0-86.14.0																			
Application	TVOE																			
Version	3.0.0.0.0_86.14.0																			
Function																				
Designation																				

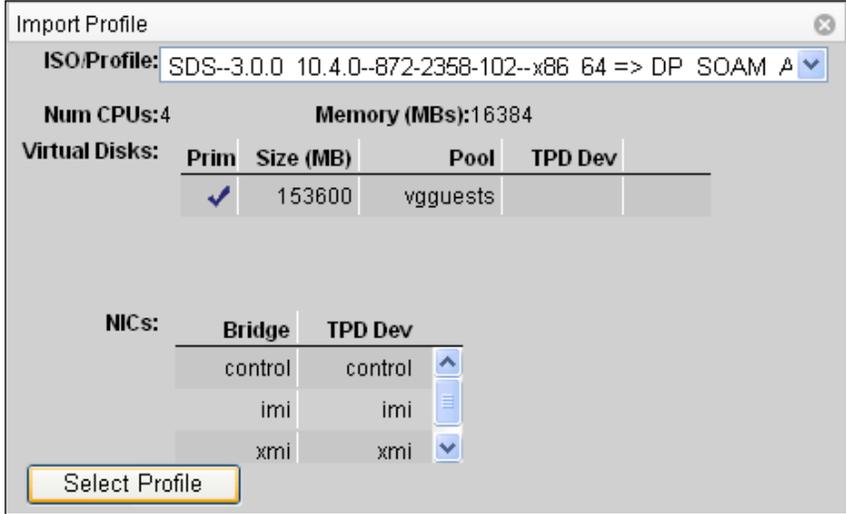
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
	<p> IF TVOE WAS NOT INSTALLED ON THE BLADE SERVER, STOP AND EXECUTE THE FOLLOWING STEPS:</p> <ol style="list-style-type: none"> 1) Verify that the enclosure and bay number are correct. 2) Refer [3] for TVOE Installation or Contact DSR Installation Engineer to confirm location of OAM blade and status of TVOE installation. 3) Restart this procedure. <p>IF THE TVOE APPLICATION WAS ALREADY INSTALLED, THEN CONTINUE ON TO THE NEXT STEP IN THIS PROCEDURE.</p> <p>NOTE: It is assumed that the TVOE version corresponds with the correct DSR and SDS installation guidelines, this can be checked by executing “appRev”.</p>	
<p>6.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>Select ...</p> <p>Main Menu → VM Management</p> <p>...as shown on the right.</p>	

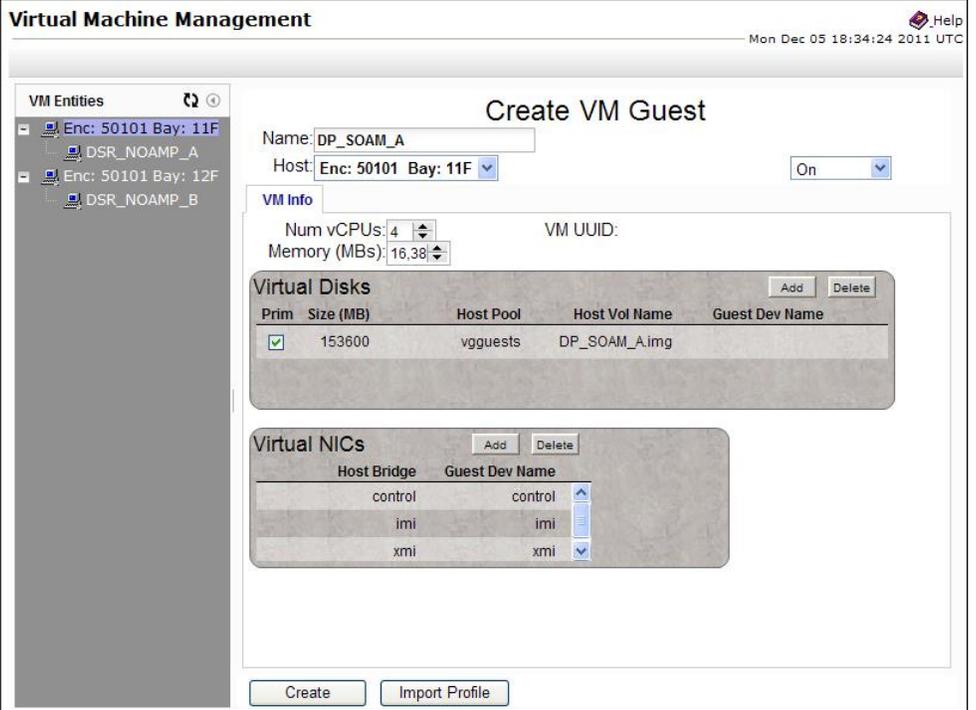
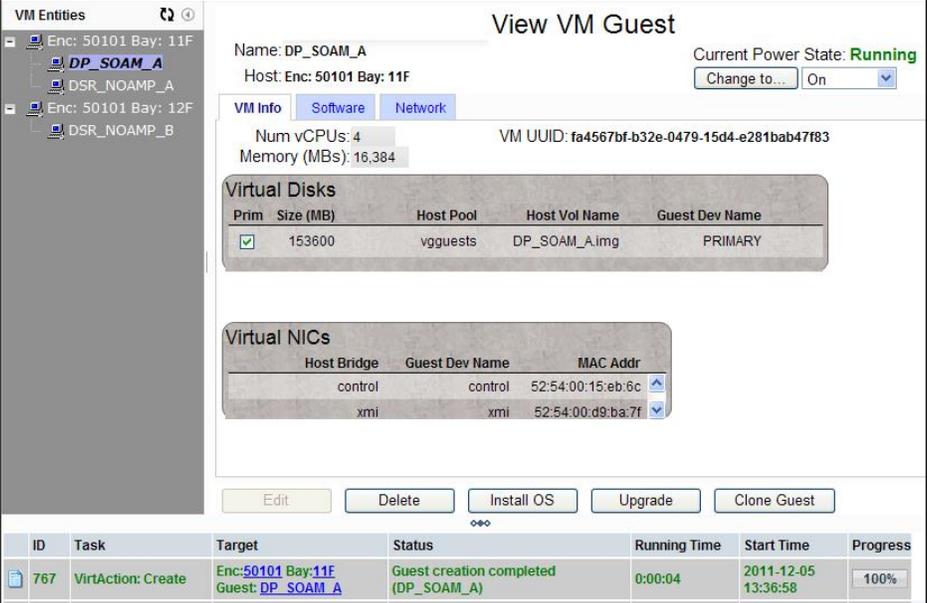
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

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

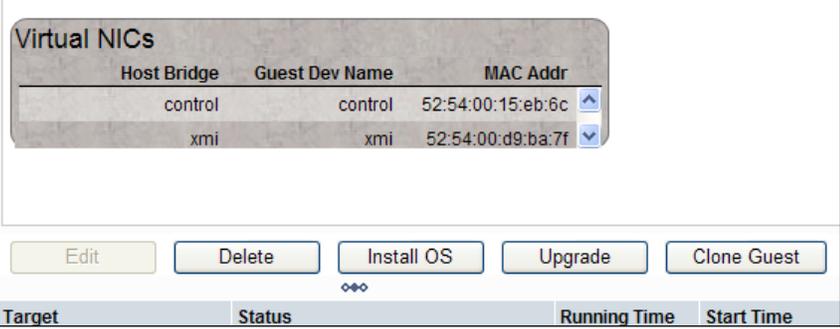
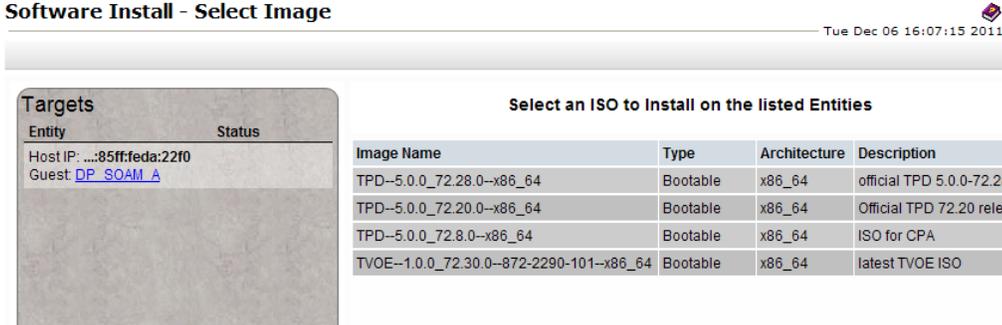
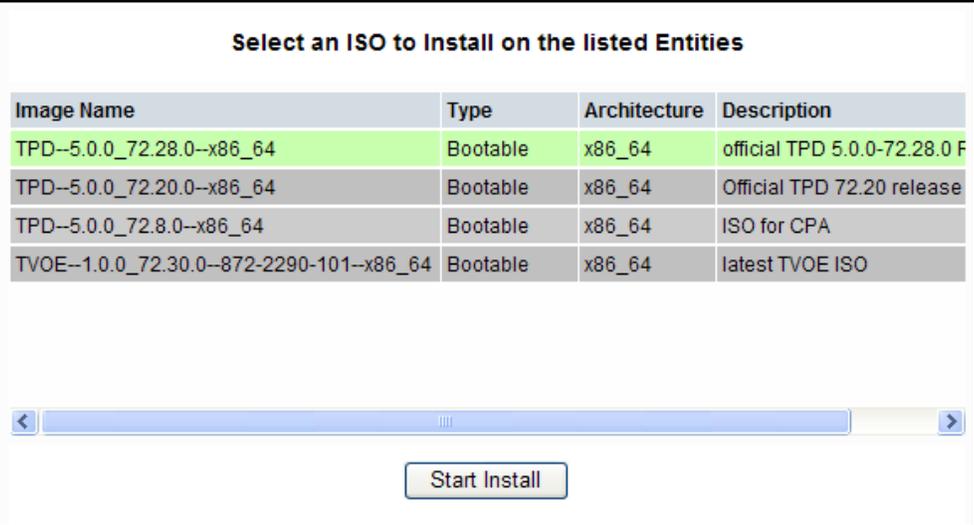
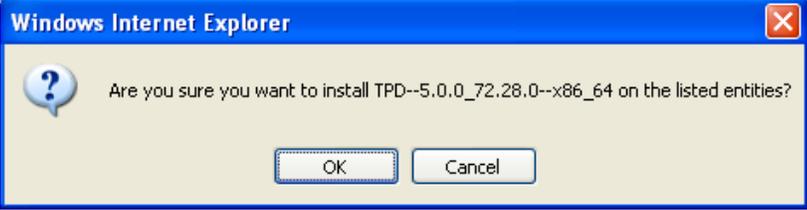
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																													
<p>9.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>1) Select the desired ISO/Profile value</p> <p>...as shown on the right.</p> <p>2) Click the “Select Profile” dialogue button</p>	<p>From the “ISO/Profile” drop-down box, select the entry that matches depending on the hardware that your SOAM VM TVOE server is running:</p> <table border="1"> <tr><td> </td><td> </td><td> </td></tr> </table> <table border="1"> <thead> <tr> <th>SDS Release</th> <th>TVOE HW Type (<i>BL460 Blade Server</i>)</th> <th>Role</th> <th>Choose Profile (<Application ISO NAME>➔)</th> </tr> </thead> <tbody> <tr> <td rowspan="2">7.1</td> <td rowspan="2">G6 / Gen8 Blade</td> <td>SOAM-A</td> <td>DP_SOAM_A</td> </tr> <tr> <td>SOAM-B</td> <td>DP_SOAM_B</td> </tr> <tr> <td>7.2 / 7.3</td> <td>Gen8 / Gen9 Blade</td> <td>SOAM-A SOAM-B</td> <td>DP_SOAM_1B_RE</td> </tr> </tbody> </table> <p>Note: Application_ISO_NAME is the name of the DSR Application ISO to be installed on this SOAM</p> 																SDS Release	TVOE HW Type (<i>BL460 Blade Server</i>)	Role	Choose Profile (<Application ISO NAME>➔)	7.1	G6 / Gen8 Blade	SOAM-A	DP_SOAM_A	SOAM-B	DP_SOAM_B	7.2 / 7.3	Gen8 / Gen9 Blade	SOAM-A SOAM-B	DP_SOAM_1B_RE
SDS Release	TVOE HW Type (<i>BL460 Blade Server</i>)	Role	Choose Profile (<Application ISO NAME>➔)																												
7.1	G6 / Gen8 Blade	SOAM-A	DP_SOAM_A																												
		SOAM-B	DP_SOAM_B																												
7.2 / 7.3	Gen8 / Gen9 Blade	SOAM-A SOAM-B	DP_SOAM_1B_RE																												

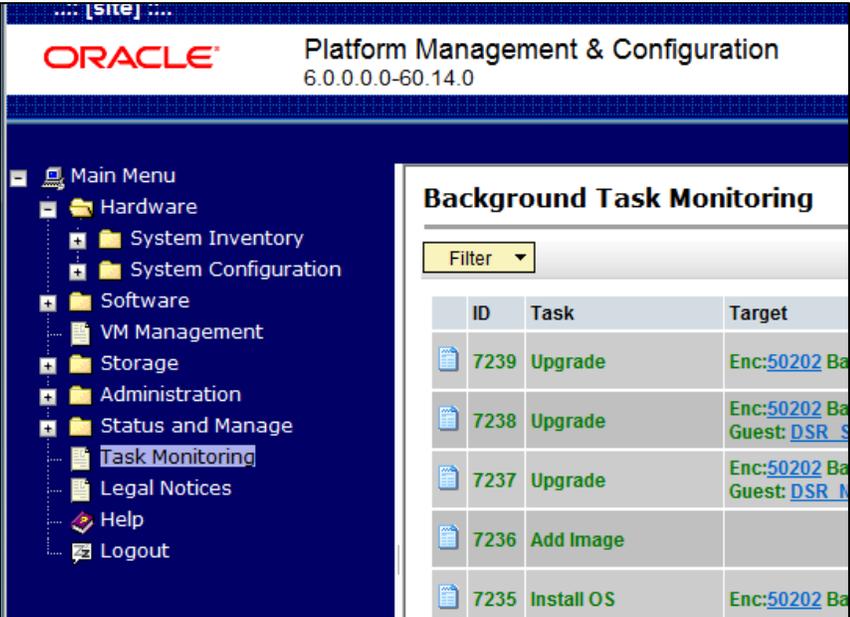
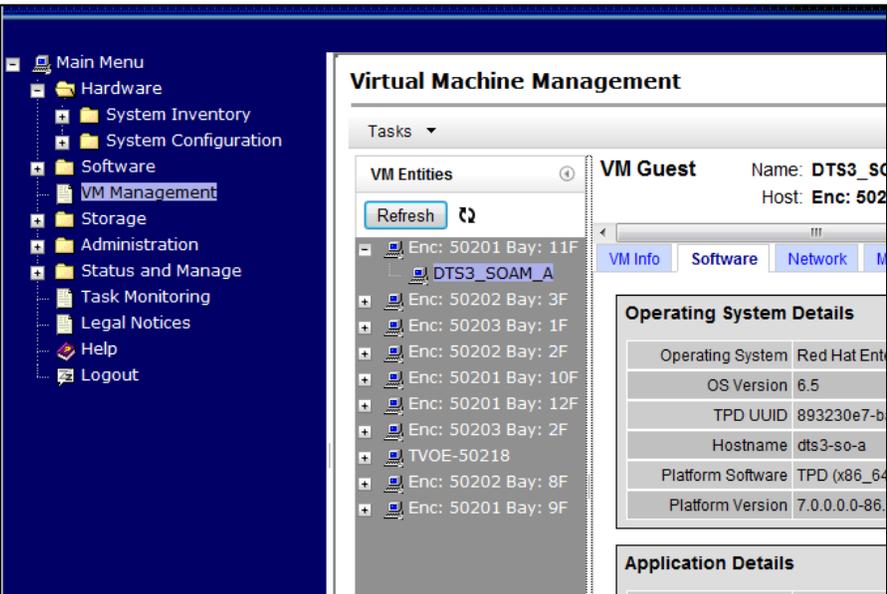
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>10.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>1) Overwrite the Name field with the Server host name (e.g. "so-mrsvnc-a")</p> <p>2) Click the "Create" dialogue button</p> <p>NOTE: If the VM Guest creation fails due to error "Host resources are oversubscribed.", then re-execute Steps 6 - 10 of this procedure and modify the Memory(MBs): value from 16,384 to 16,372 before clicking the "Create" button.</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>Verify that task successfully completes.</p> <p>The user should see a screen similar to the one on the right with Progress value of 100%.</p>	

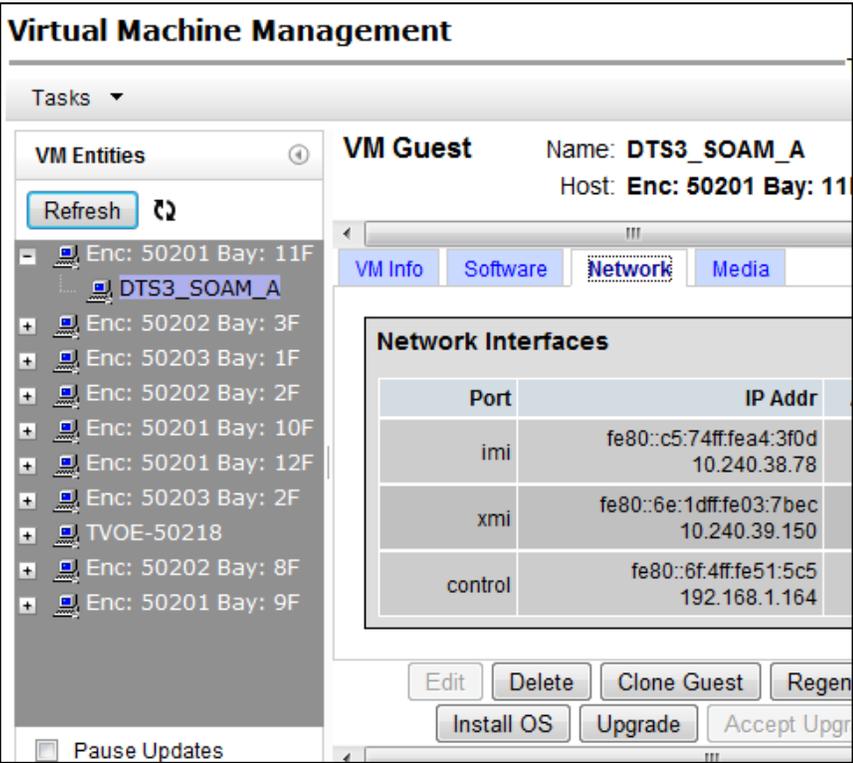
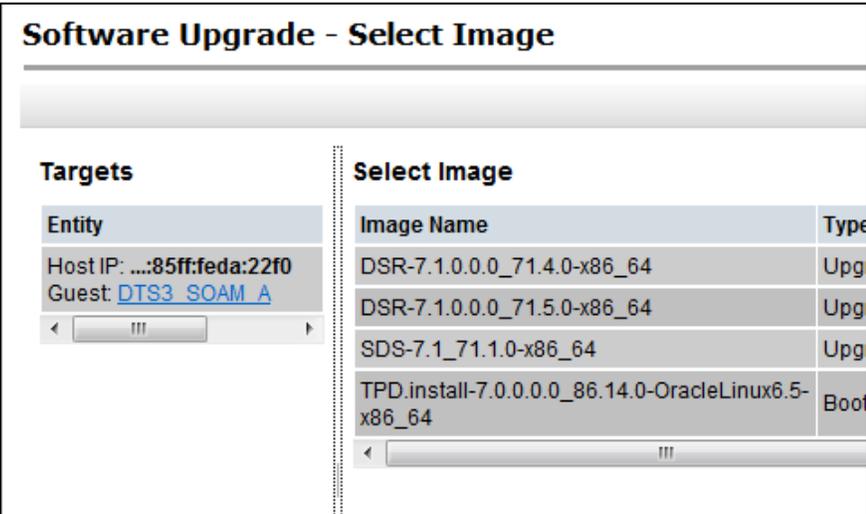
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>Install the operating system by clicking the “Install OS” dialogue button</p>	
<p>13.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>The user should see a screen similar to the one on the right.</p>	
<p>14.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>1) Select the desired TPD Image</p> <p>2) Click the “Start Install” dialogue button.</p>	
<p>15.</p> <input type="checkbox"/>	<p>PMAC Server GUI:</p> <p>The user should be presented with an “Are you sure you want to install” message box as shown on the right. Click the “OK” dialogue button.</p>	

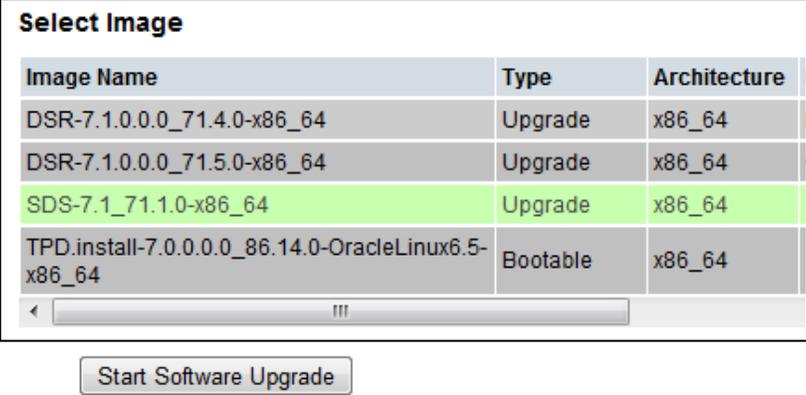
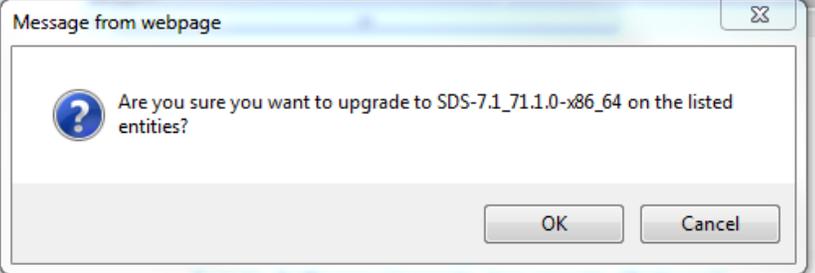
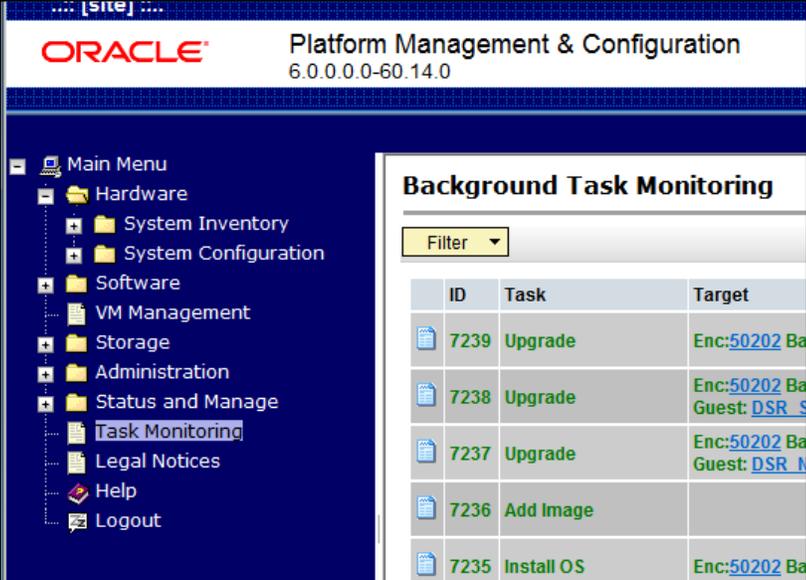
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																		
<p>16.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>An installation task will be started. This task takes ~11 minutes. The user can monitor this task by doing the following:</p> <p>Select...</p> <p>Main Menu → Task Monitoring</p> <p>Wait until you see the Progress value equal 100%.</p>	 <p>Background Task Monitoring</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>PMAC Server GUI:</p> <p>1) Select...</p> <p>Main Menu → VM Management</p> <p>2) Select the “Software” tab</p> <p>3) Verify the operating system has been installed.</p> <p>4) Verify the “Application Details” section is blank.</p>	 <p>Virtual Machine Management</p> <p>VM Entities</p> <ul style="list-style-type: none"> Enc: 50201 Bay: 11F DTS3_SOAM_A Enc: 50202 Bay: 3F Enc: 50203 Bay: 1F Enc: 50202 Bay: 2F Enc: 50201 Bay: 10F Enc: 50201 Bay: 12F Enc: 50203 Bay: 2F TVOE-50218 Enc: 50202 Bay: 8F Enc: 50201 Bay: 9F <p>VM Guest Name: DTS3_SOAM_A Host: Enc: 50202</p> <p>Operating System Details</p> <table border="1"> <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> </table> <p>Application Details</p>	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	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.																			

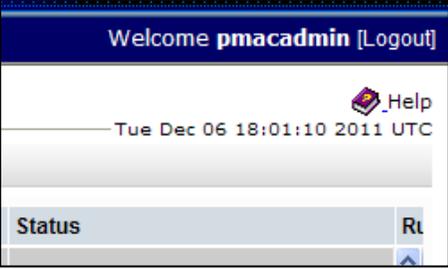
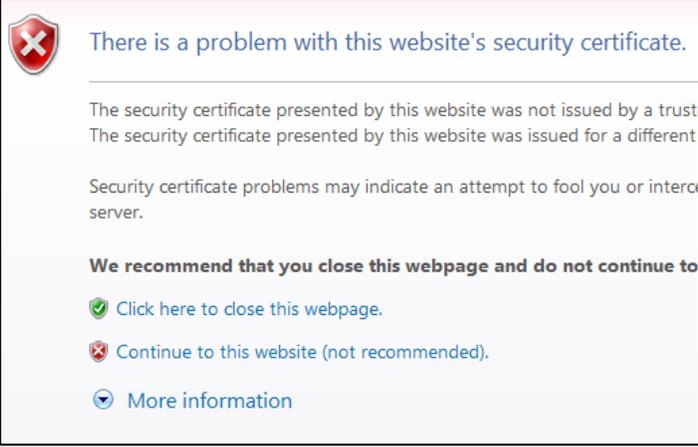
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																						
<p>18.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</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>Virtual Machine Management</p> <p>Tasks ▾</p> <p>VM Entities <input type="button" value="Refresh"/> ↻</p> <ul style="list-style-type: none"> Enc: 50201 Bay: 11F <ul style="list-style-type: none"> DTS3_SOAM_A Enc: 50202 Bay: 3F Enc: 50203 Bay: 1F Enc: 50202 Bay: 2F Enc: 50201 Bay: 10F Enc: 50201 Bay: 12F Enc: 50203 Bay: 2F TVOE-50218 Enc: 50202 Bay: 8F Enc: 50201 Bay: 9F <p><input type="checkbox"/> Pause Updates</p> <p>VM Guest Name: DTS3_SOAM_A Host: Enc: 50201 Bay: 11F</p> <p>VM Info Software Network Media</p> <p>Network Interfaces</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><input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Clone Guest"/> <input type="button" value="Regen..."/> <input type="button" value="Install OS"/> <input type="button" value="Upgrade"/> <input 108="" 161="" 516="" 774"="" type="button" value="Accept Upgr...</p> </td> </tr> <tr> <td data-bbox="/> <p>19.</p> <p><input type="checkbox"/></p> </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	<p>PMAC Server GUI:</p> <p>The user should be presented the Select Image screen as shown on the right</p>	 <p>Software Upgrade - Select Image</p> <p>Targets</p> <table border="1"> <thead> <tr> <th>Entity</th> </tr> </thead> <tbody> <tr> <td>Host IP: ...:85ff:feda:22f0 Guest: DTS3_SOAM_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: DTS3_SOAM_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
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																							
Entity																								
Host IP: ...:85ff:feda:22f0 Guest: DTS3_SOAM_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																							

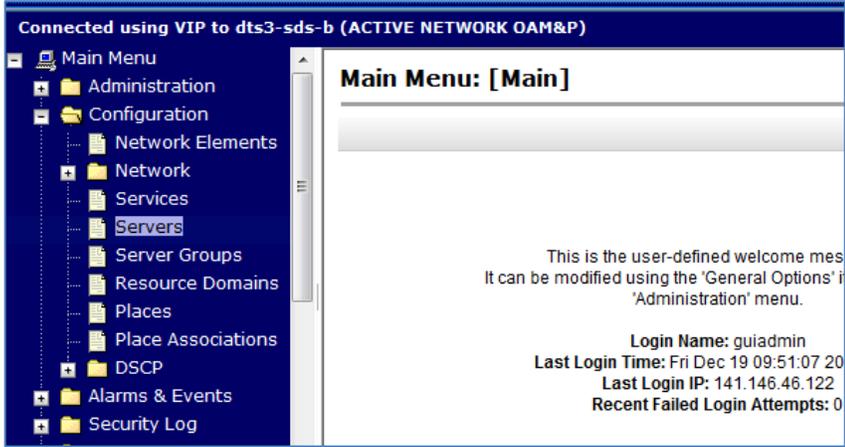
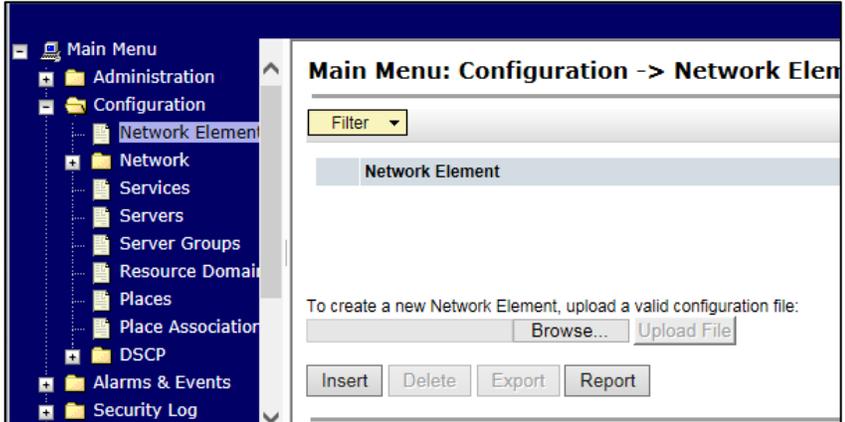
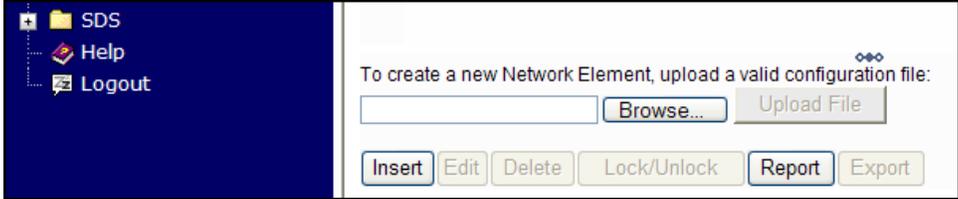
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																		
<p>20.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>1) Select the correct SDS version from the “Image Name” list. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Start Upgrade” 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>	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>PMAC Server GUI:</p> <p>The user should be presented with an “Are you sure you want to upgrade” message box</p> <p>....as shown on the right.</p> <p>Click the “OK” dialogue button.</p>																			
<p>22.</p> <p><input type="checkbox"/></p>	<p>PMAC Server GUI:</p> <p>An upgrade task will be started. This task takes ~8 minutes. The user can monitor this task by doing the following:</p> <p>Select...</p> <p>Main Menu → Task Monitoring</p> <p>Wait until you see the Progress value equal 100%.</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																		

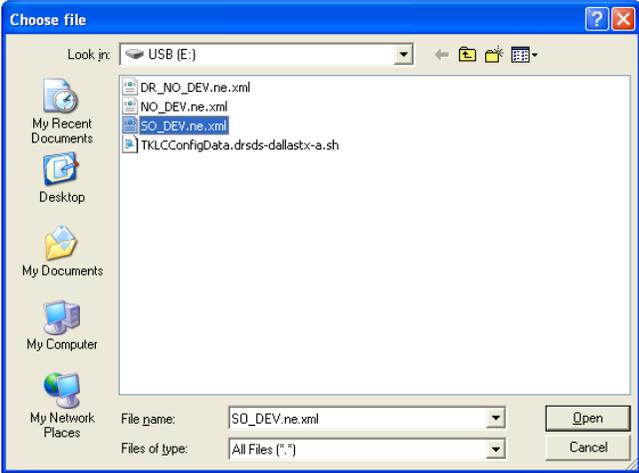
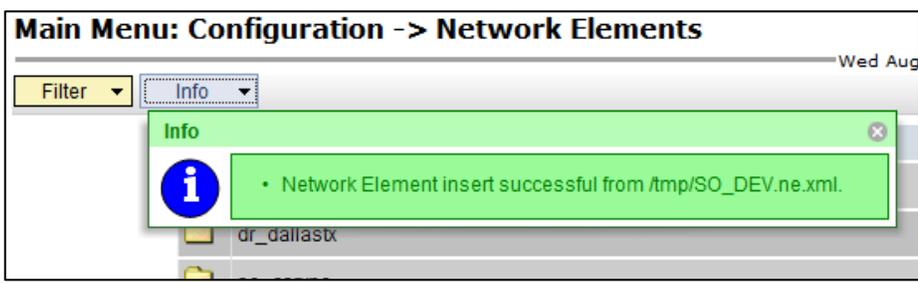
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>23.</p> <input type="checkbox"/>	<p>Repeat Steps 4 - 22 of this procedure for the SOAM B Server.</p>	
<p>24.</p> <input type="checkbox"/>	<p>PMAC Server GUI: Click the “Logout” link on the PMAC server GUI.</p>	
<p>25.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Launch an approved web browser and connect to the XMI Virtual IP address (VIP) assigned to Active SDS site NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>26.</p> <input type="checkbox"/>	<p>Primary SDS VIP: The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.</p>	

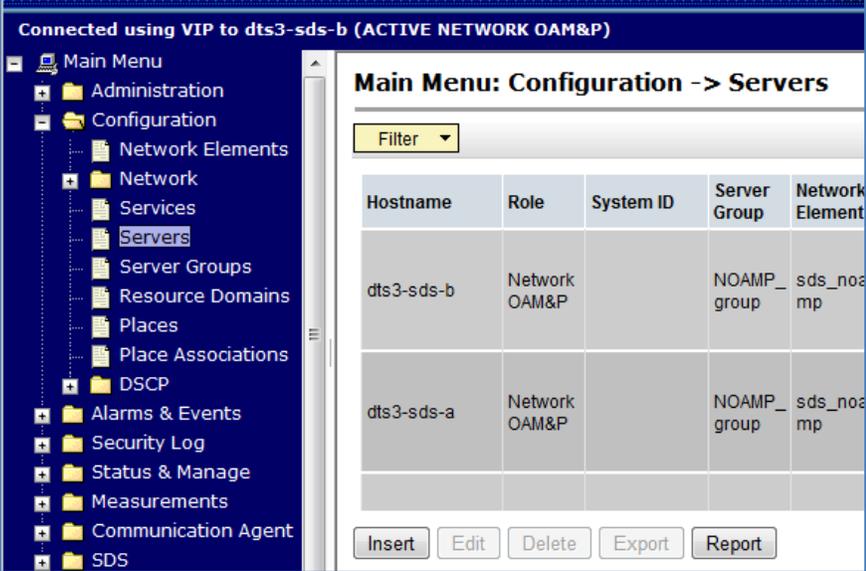
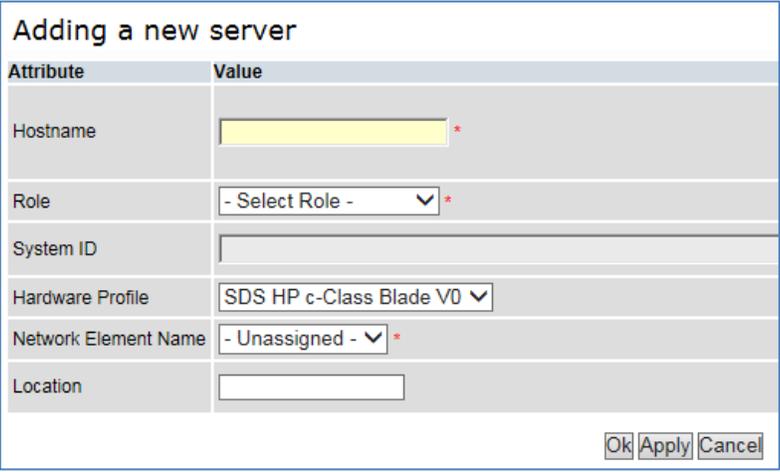
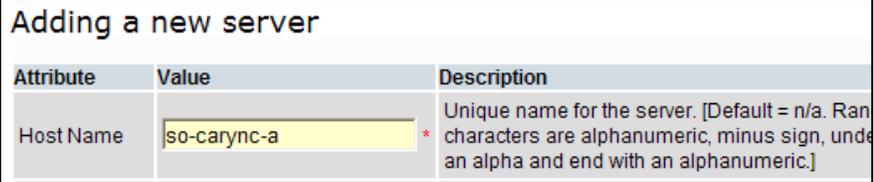
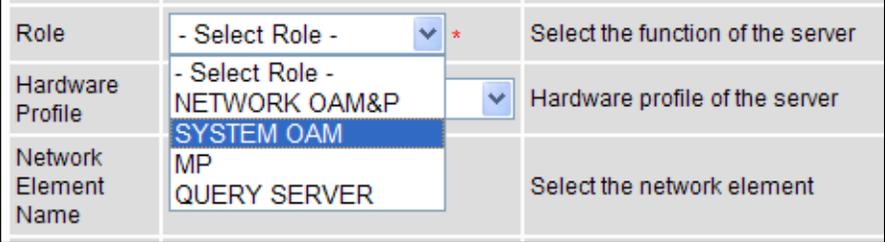
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

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

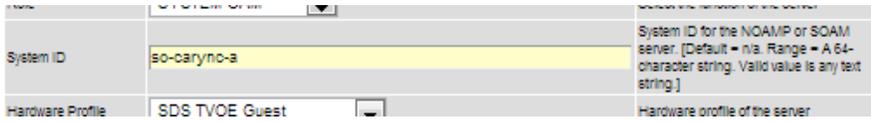
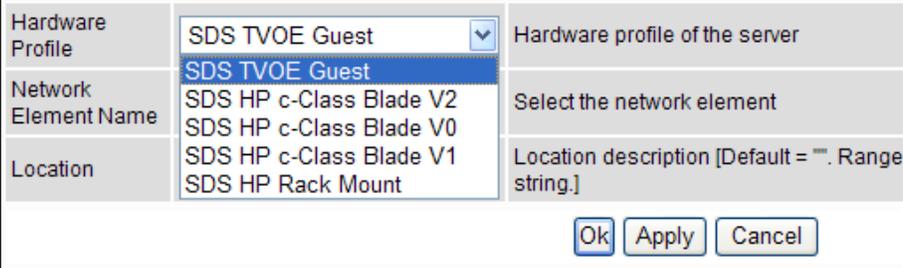
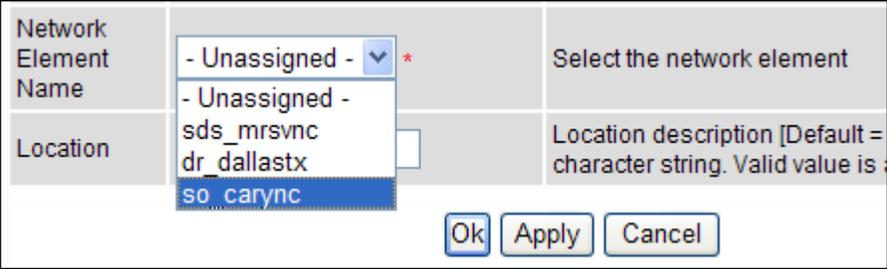
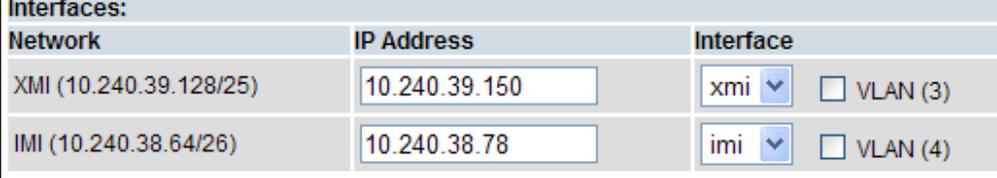
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>30.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Note: This step assumes that the xml files were previously prepared, as described in Appendix F.</p> <p>1) Select the location containing the site .xml file.</p> <p>2) Select the .xml file and click the “Open” dialogue button.</p>	
<p>31.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “Upload File” dialogue button (bottom left corner of screen).</p>	
<p>32.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values in the .xml file pass validation rules, the user will receive a banner information message showing that the data has been successfully validated and committed to the DB.</p>	

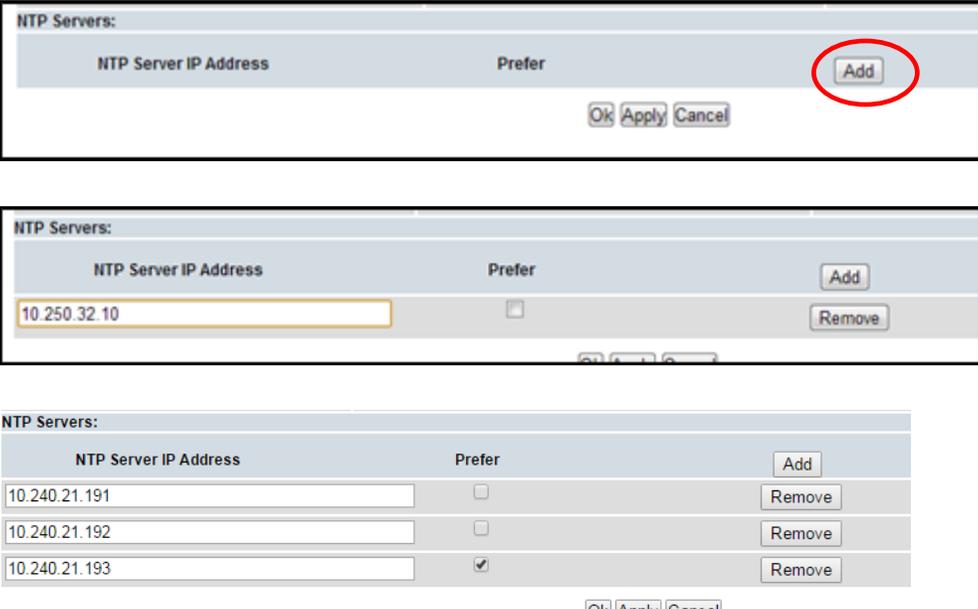
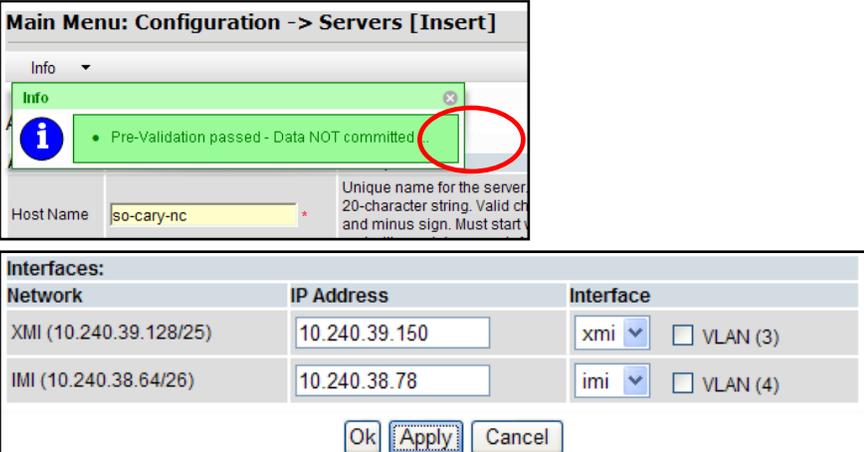
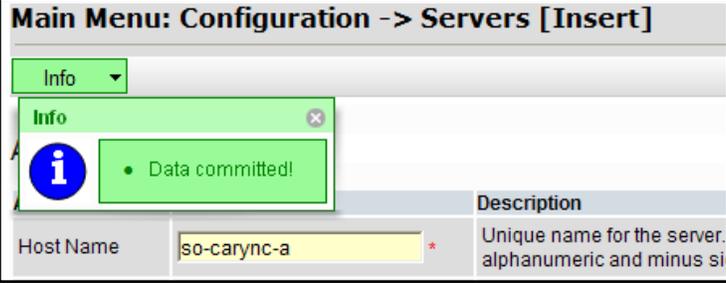
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

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

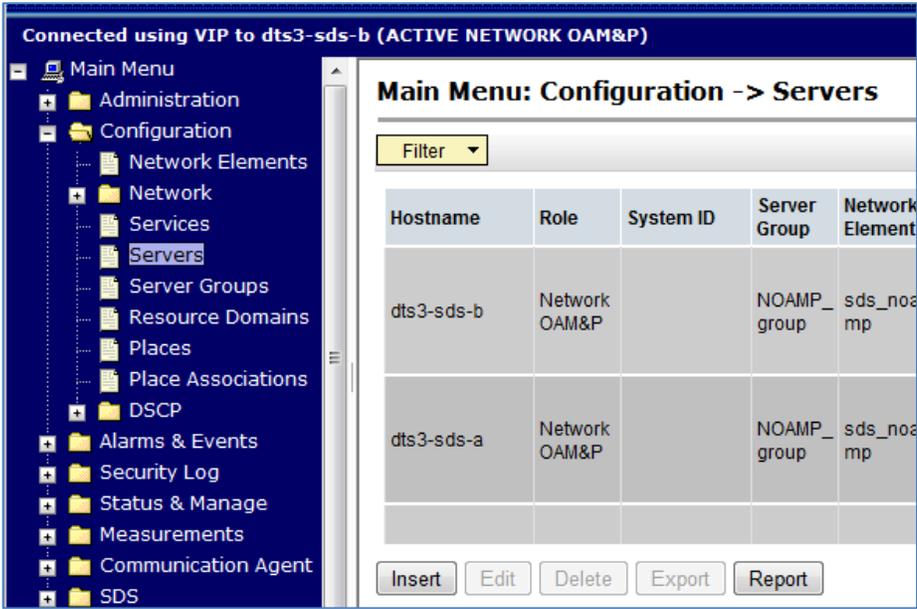
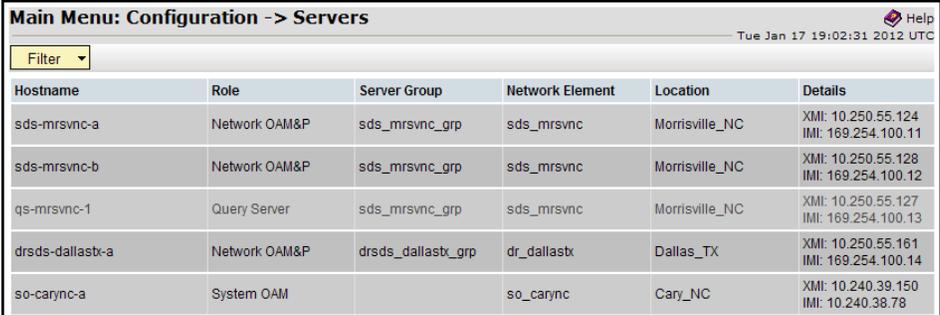
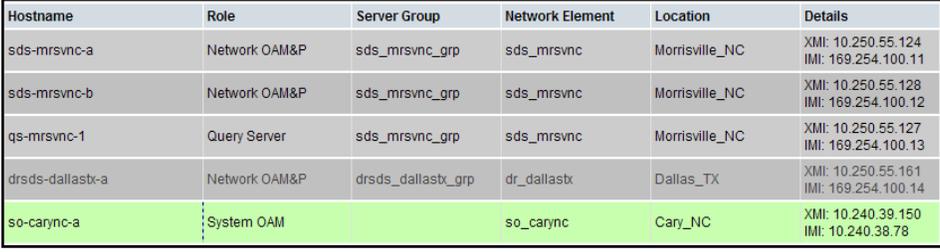
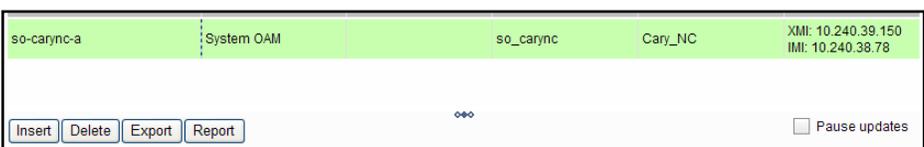
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result												
<p>37.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Input the assigned hostname again as the “System ID” for the SO Server (A or B).</p>													
<p>38.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select “SDS TVOE Guest” for the Hardware Profile for the SOAM from the pull-down menu.</p>													
<p>39.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select the Network Element Name for the SDS from the pull-down menu.</p> <p>NOTE: After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 41.</p>													
<p>40.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Enter the site location.</p>	 <p>NOTE: Location is an optional field.</p>												
<p>41.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) Enter the XMI IP address and IMI IP address for the SDS SOAM Server.</p> <p>2) Set the XMI Interface to “xmi” and DO NOT check the VLAN checkbox.</p> <p>3) Set the IMI Interface to “imi” and DO NOT check the VLAN checkbox.</p>	 <table border="1"> <thead> <tr> <th 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)												

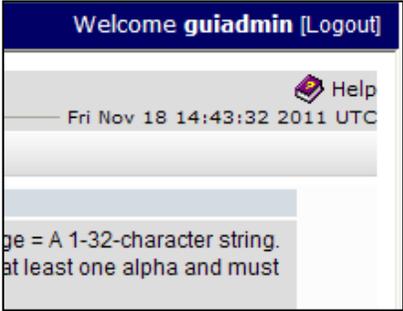
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result									
<p>42.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>										
<p>43.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p>	 <table border="1"> <thead> <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>	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)
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)									
<p>44.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>If the values provided match the network ranges assigned to the NE, the user 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>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Servers</p> <p>...as shown on the right.</p>																																					
<p>46.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>On the “Configuration →Servers” screen, find the newly added System SOAM server in the list.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>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&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&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-dallastx-a</td> <td>Network OAM&P</td> <td>drdsds_dallastx_grp</td> <td>dr_dallastx</td> <td>Dallas_TX</td> <td>XMI: 10.250.55.161 IMI: 169.254.100.14</td> </tr> <tr style="background-color: #e0ffe0;"> <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-dallastx-a	Network OAM&P	drdsds_dallastx_grp	dr_dallastx	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-dallastx-a	Network OAM&P	drdsds_dallastx_grp	dr_dallastx	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>Primary SDS VIP:</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>																																					
<p>48.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “Export” dialogue button (bottom left corner of screen).</p>																																					

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

Step	Procedure	Result
49. <input type="checkbox"/>	Configure the SDS SOAM B server.	<ul style="list-style-type: none"> Repeat Steps 33- 48 of this procedure for the SDS SOAM B Server.
50. <input type="checkbox"/>	Primary SDS VIP: Click the “Logout” link on the SDS server GUI.	
51. <input type="checkbox"/>	Primary SDS VIP: Access the server console.	Connect to the Active SDS VIP console using one of the access methods described in Section 2.3 .
52. <input type="checkbox"/>	Primary SDS VIP: Log into the server as the admusr	login: admusr Password: <admusr_password>
53. <input type="checkbox"/>	Primary SDS VIP: Change directory into the file management space.	\$ sudo cd /var/TKLC/db/filemgmt
54. <input type="checkbox"/>	Primary SDS VIP: Get a directory listing and find the configuration files with the SOAM server A and B name as shown in red . Note: These should appear toward the bottom of the listing.	\$ ls -ltr TKLCConfigData*.sh *** TRUNCATED OUTPUT *** -rw-rw-rw- 1 admusr admusr 2208 Dec 19 16:37 TKLCConfigData. so-carync-a.sh -rw-rw-rw- 1 admusr admusr 2208 Dec 19 16:50 TKLCConfigData. so-carync-b.sh
55. <input type="checkbox"/>	Primary SDS VIP: Copy the configuration files found in the previous step to the PMAC.	\$ sudo scp -p <configuration_file-a> <configuration_file-b> admusr@<PMAC_Mgmt_IP>:/tmp/ admusr@10.240.39.4's password: TKLCConfigData.so-carync-a.sh 100% 1741 1.7KB/s 00:00 TKLCConfigData.so-carync-b.sh 100% 1741 1.7KB/s 00:00 [admusr@sds-mrsvnc-a filemgmt]#

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

Step	Procedure	Result
56.	Primary SDS VIP: Logout of the Primary SDS CLI.	\$ <code>exit</code>
57.	PMAC Server CLI: Use SSH to login to the PMAC Guest VM server as the admusr .	login: <code>admusr</code> Password: <code><admusr_password></code>
58. <input type="checkbox"/>	PMAC Guest VM: Copy the server configuration file to the Control IP for the SOAM. Note: The Control IP for each OAM is obtained in Step 18 of this procedure.	\$ sudo <code>scp -p /tmp/<configuration_file></code> <code>admusr@<SOAM_Control_IP>:/var/TKLC/db/filemgmt</code> <code>admusr@192.168.1.199's password:</code> <code>TKLCConfigData.so-carync-a.sh</code> 100% 1741 1.7KB/s 00:00
59. <input type="checkbox"/>	PMAC Guest VM: Connect to the SOAM server console from the PMAC Server Console	\$ sudo <code>ssh <OAM_Control_IP></code> <code>admusr@192.168.1.199's password: <admusr_password></code>
60. <input type="checkbox"/>	SOAM Guest VM: Copy the server configuration file to the "/var/tmp" directory on the server, making sure to rename the file by omitting the server hostname (shown in red) from the file name.	Example: <code>TKLCConfigData<.server_hostname>.sh</code> → will translate to → <code>TKLCConfigData.sh</code> \$ sudo <code>cp -p /var/TKLC/db/filemgmt/TKLCConfigData.so-carync-a.sh</code> <code>/var/tmp/TKLCConfigData.sh</code> NOTE: <i>The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</i>

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

Step	Procedure	Result
<p>61.</p> <input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p> <p>NOTE: <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>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <p>Broadcast message from admusr (Mon Dec 14 15:47:33 2009):</p> <p>Server configuration completed successfully!</p> <p>See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server.</p> <p><ENTER></p>
<p>62.</p>	<p>SOAM Guest VM:</p> <p>Verify that the desired Time Zone is currently in use.</p>	<p>\$ date</p> <p>Mon Aug 10 19:34:51 UTC 2015</p>
<p>63.</p> <input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>If the desired Time Zone was not presented in the previous step...</p> <p>Configure the Time Zone.</p> <p>Otherwise, skip to the next step.</p>	<p>Example: \$ sudo set_ini_tz.pl <time_zone></p> <p>NOTE: <i>The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites.</i></p> <p><i>The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix H for a list of valid time zones.</i></p> <p>\$ sudo set_ini_tz.pl "Etc/UTC"</p>
<p>64.</p> <input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>Initiate a reboot of the SOAM server.</p>	<p>\$ sudo init 6</p>
<p>65.</p> <input type="checkbox"/>	<p>SOAM Guest VM:</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	<p>Connection to 192.168.1.199 closed by remote host.</p> <p>Connection to 192.168.1.199 closed.</p>

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

Step	Procedure	Result
<p>66.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>After the SOAM server has completed reboot, re-connect to the SOAM server console from the PMAC Server Console</p>	<pre>\$ sudo ssh <SOAM_Control_IP> admusr@192.168.1.199's password: <admusr_password></pre>
<p>67.</p> <p><input type="checkbox"/></p>	<p>SOAM Guest VM:</p> <p>1) Verify that the IMI IP address input in Step 41 has been applied as specified.</p> <p>2) Verify that the XMI IP address input in Step 41 has been applied as specified.</p>	<pre>\$ ifconfig grep in control Link encap:Ethernet HWaddr 52:54:00:23:DC:32 inet addr:192.168.1.199 Bcast:192.168.1.255 Mask:255.255.255.0 imi Link encap:Ethernet HWaddr 52:54:00:33:DC:DC inet addr:10.240.38.78 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>
<p>68.</p>	<p>SOAM Guest VM:</p> <p>Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>

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

Step	Procedure	Result
69.	<p>SOAM Guest VM:</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>
70.	<p>Apply the SDS SOAM B server configuration file.</p>	<ul style="list-style-type: none"> Repeat Steps 57 - 68 this procedure for SOAM Server B.
71. <input type="checkbox"/>	<p>SOAM Guest B:</p> <p>From the SOAM-B Guest, “ping” the IMI IP address of the SOAM-A Guest</p>	<pre> \$ ping -c 5 10.240.38.78 PING 10.240.38.78 (10.240.38.78) 56(84) bytes of data. 64 bytes from 10.240.38.78: icmp_seq=1 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.240.38.78: icmp_seq=3 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=4 ttl=64 time=0.028 ms 64 bytes from 10.240.38.78: icmp_seq=5 ttl=64 time=0.030 ms 64 bytes from 10.240.38.78: icmp_seq=6 ttl=64 time=0.028 ms --- 10.240.38.78 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5000ms rtt min/avg/max/mdev = 0.017/0.027/0.031/0.007 ms </pre>

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

Step	Procedure	Result
72.	SOAM Guest B: From the SOAM-B Guest , “ping” the XMI IP address of the SOAM-A Guest	<pre>\$ ping -c 5 10.240.39.150 PING 10.240.39.150 (10.240.39.150) 56(84) bytes of data. 64 bytes from 10.240.39.150: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.150: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.150: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.150: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.150: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.150: icmp_seq=6 ttl=64 time=0.026 ms --- 10.240.39.150 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
73. <input type="checkbox"/>	SOAM Guest B: From the SOAM-B Guest , “ping” the local XMI Gateway address associated with the SOAM NE.	<pre>\$ ping -c 5 10.240.39.1 PING 10.240.39.1 (10.240.39.1) 56(84) bytes of data. 64 bytes from 10.240.39.1: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.1: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.1: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.1: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.1: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.1: icmp_seq=6 ttl=64 time=0.026 ms --- 10.240.39.1 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
74. <input type="checkbox"/>	SOAM Guest VM: Use the “ntpq” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).	<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>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</p> <ol style="list-style-type: none"> 1) Contact the customer to verify that the IP addresses for the NTP server(s) are correct. 2) Have the customer IT group provide a network path from the OAM server IP to the assigned NTP IP addresses. <p>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 74.</p> </div> </div>		
75. <input type="checkbox"/>	SOAM Guest VM: Exit from the SOAM command line to return the PMAC server console prompt.	<pre>\$ exit</pre>

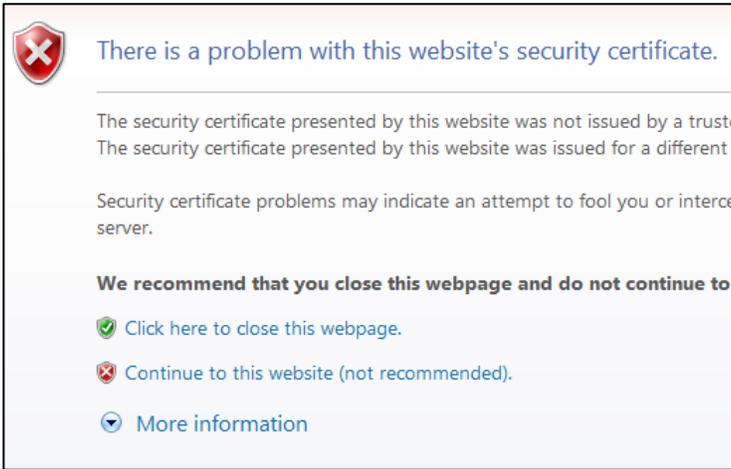
Procedure 8: Configuring the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
76. <input type="checkbox"/>	PMAC Guest VM: Exit from the PMAC server	<pre>\$ exit</pre>
THIS PROCEDURE HAS BEEN COMPLETED		

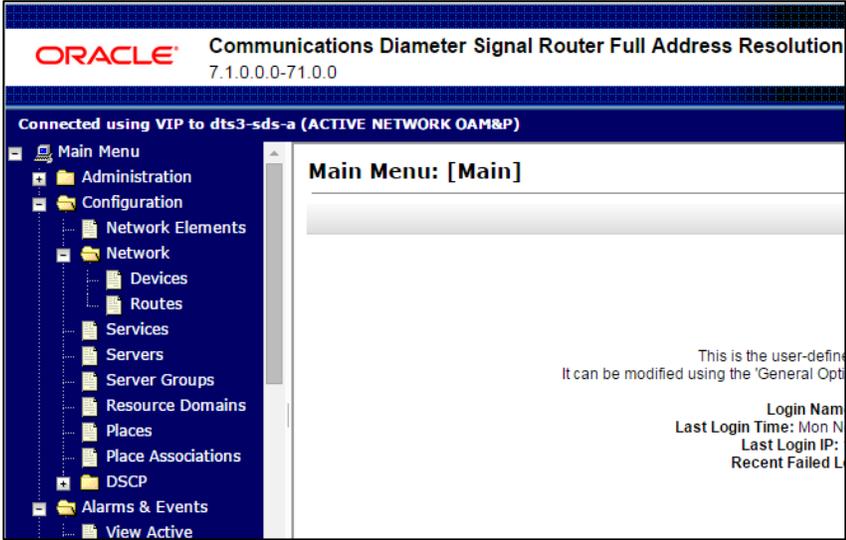
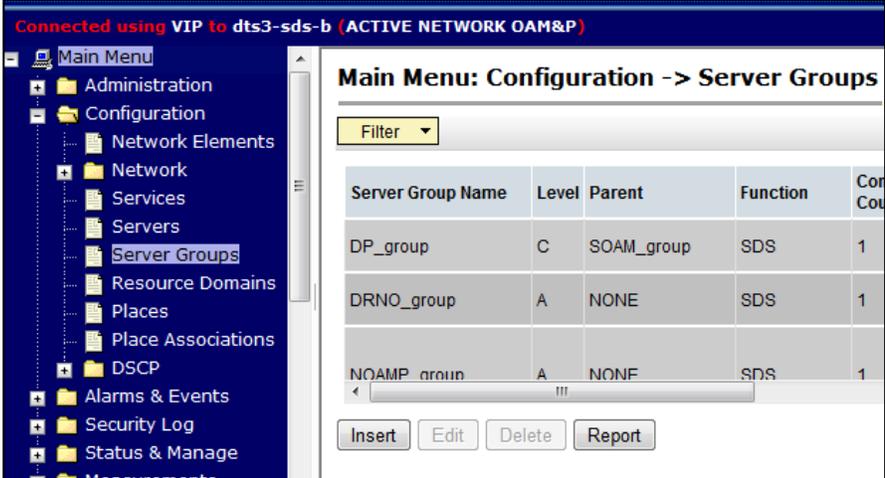
5.8 OAM Pairing for SDS SOAM sites (All SOAM sites)

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

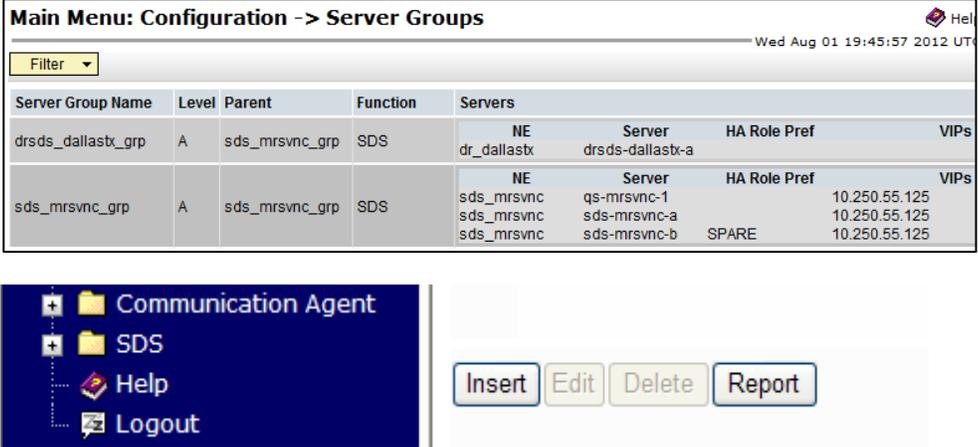
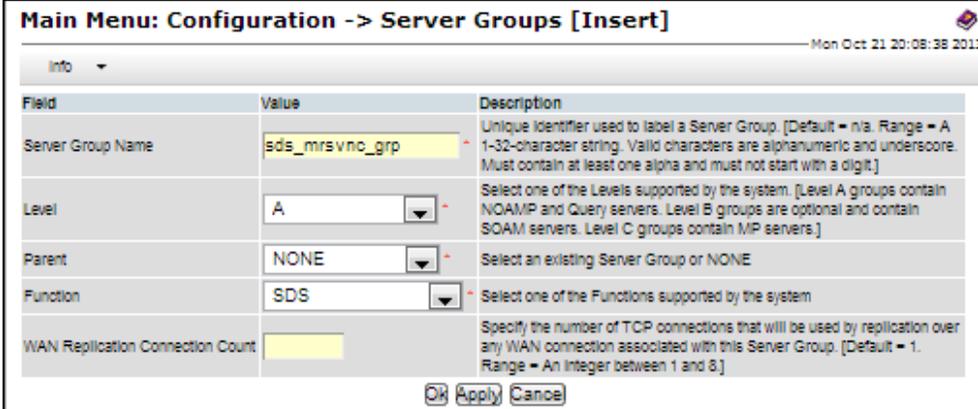
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

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

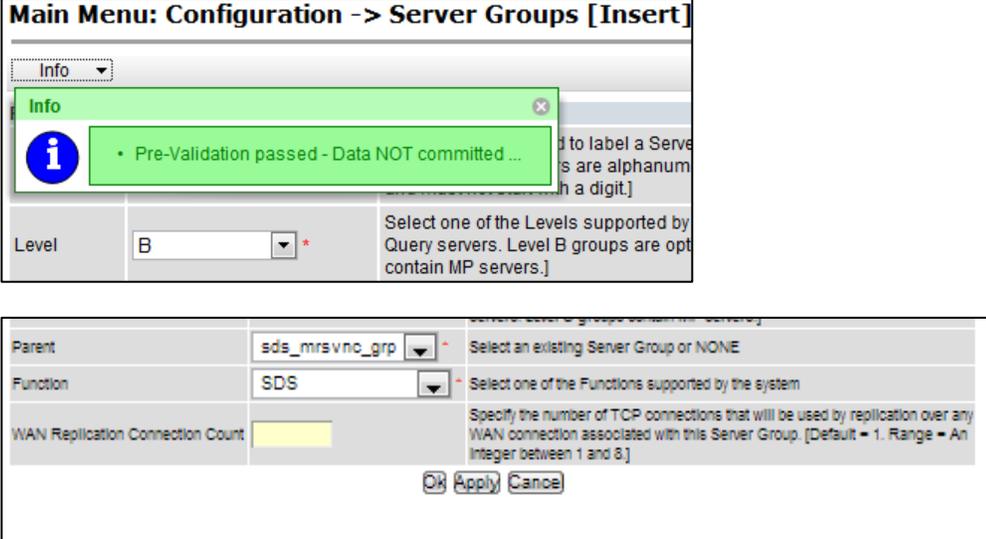
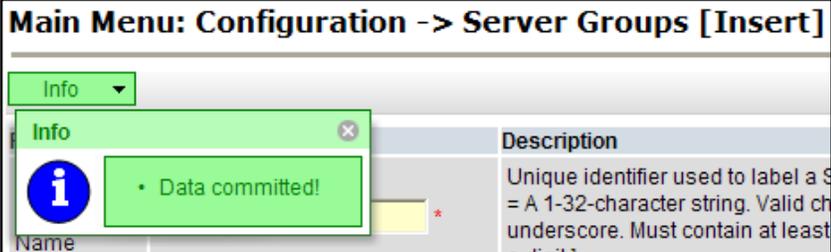
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

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

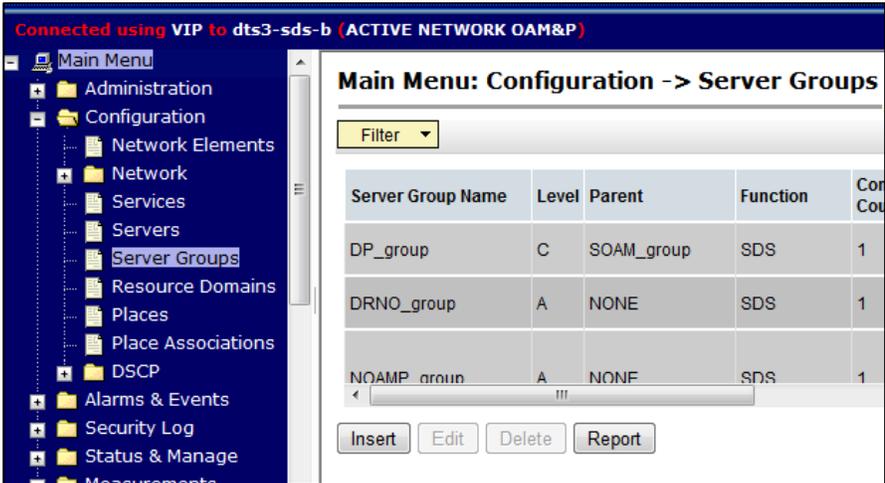
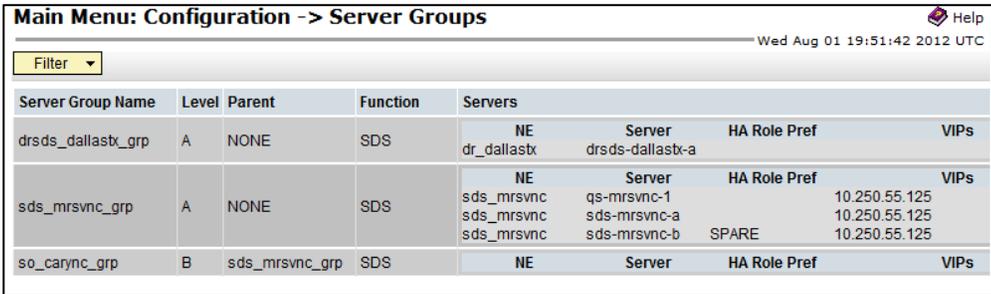
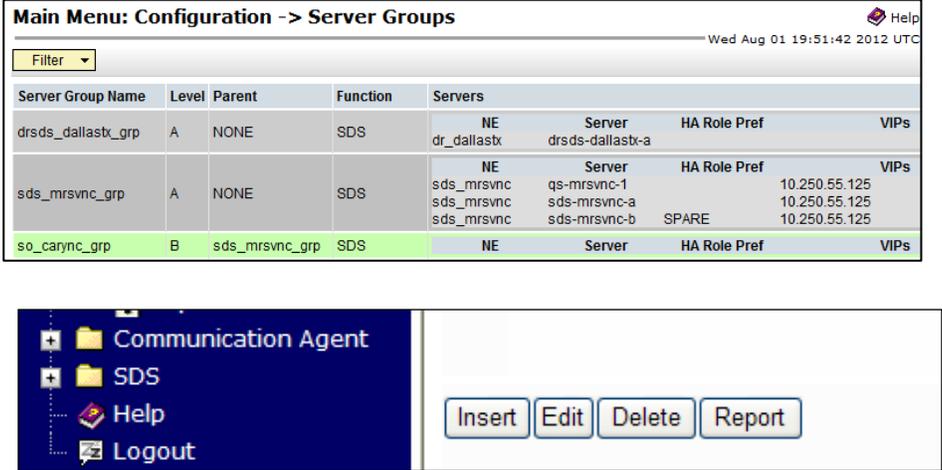
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																					
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p> <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>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>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Insert]” screen as shown on the right.</p> <p>NOTE: Leave the “WAN Replication Connection Count” blank (it will default to 1).</p>	 <p>Main Menu: Configuration -> Server Groups [Insert]</p> <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>Primary SDS VIP:</p> <p>Input the Server Group Name.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name</td> <td>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>Primary SDS VIP:</p> <p>Select “B” on the “Level” pull-down menu...</p>	<table border="1"> <tbody> <tr> <td>Level</td> <td>- Select Level - - 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 C</td> <td>Select an existing Server Group or NONE</td> </tr> </tbody> </table>	Level	- Select Level - - Select Level -	Select one of the Levels supported by the servers. Level B groups are optional and servers.]	Parent	B C	Select an existing Server Group or NONE															
Level	- Select Level - - Select Level -	Select one of the Levels supported by the servers. Level B groups are optional and servers.]																					
Parent	B C	Select an existing Server Group or NONE																					

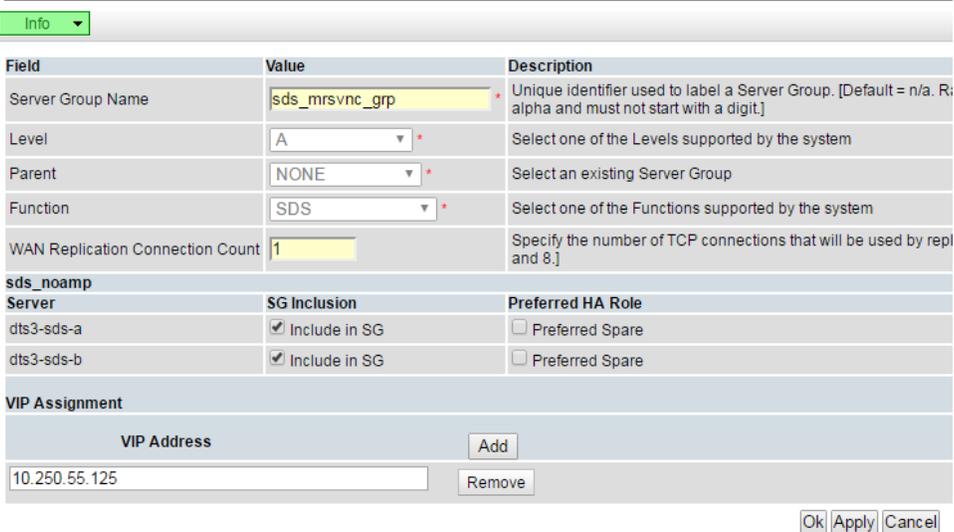
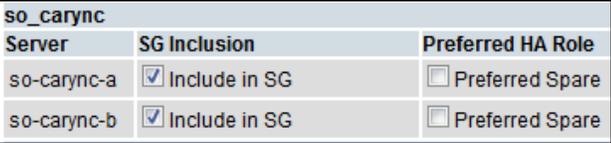
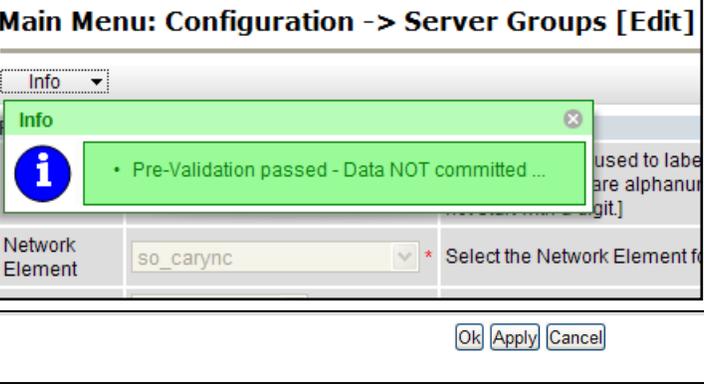
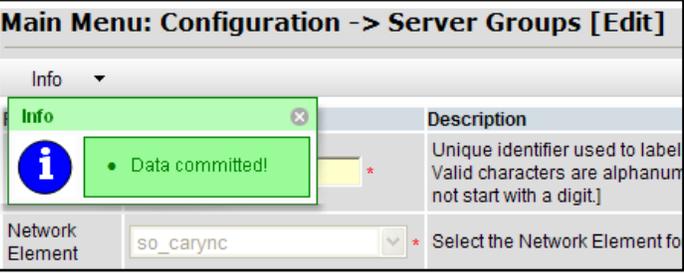
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>9.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select the 1st SDS Site's server group, as entered in Procedure 6, Step 7, on the "Parent" pull-down menu...</p>	
<p>10.</p> <input type="checkbox"/>	<p>Primary SDS VIP: Select "SDS" on the "Function" pull-down menu.</p>	
<p>11.</p> <input type="checkbox"/>	<p>Primary SDS VIP: 1) The user should be presented with a banner information message stating "Pre-Validation passed". 2) Select the "Apply" dialogue button.</p>	
<p>12.</p> <input type="checkbox"/>	<p>Primary SDS VIP: The user should be presented with a banner information message stating "Data committed".</p>	

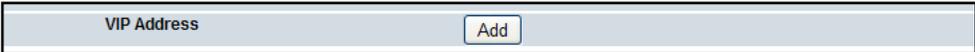
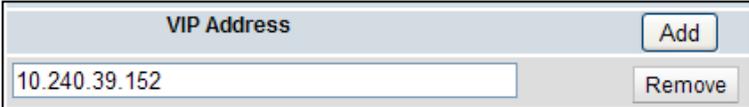
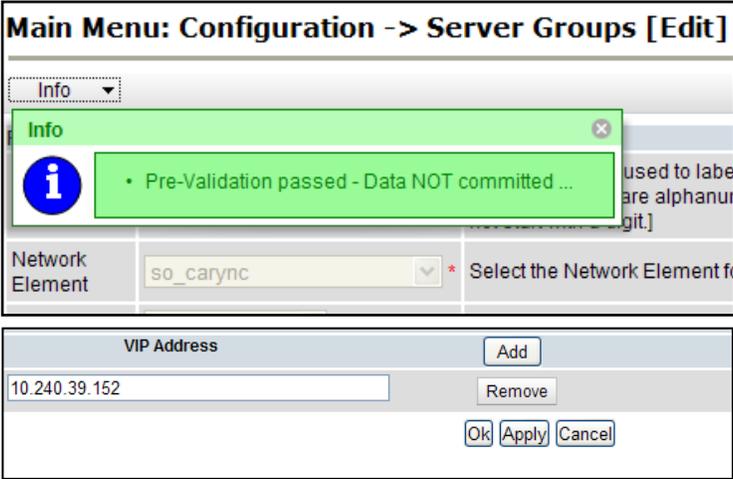
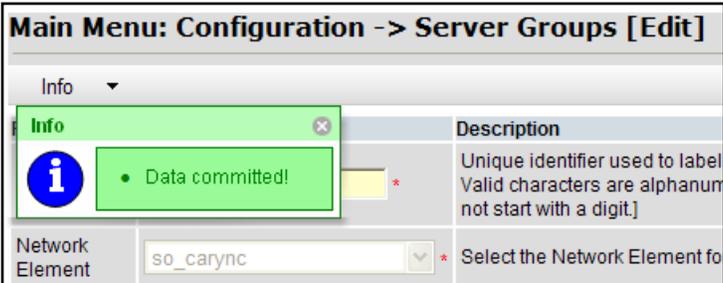
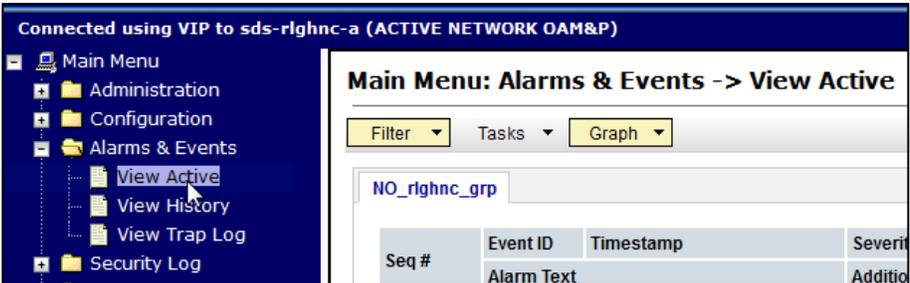
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>14.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	
<p>15.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The Server Group entry should be shown on the “Server Groups” configuration screen as shown on the right.</p>	
<p>16.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Select the Server Group entry applied in Step 12. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p> <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</p>	

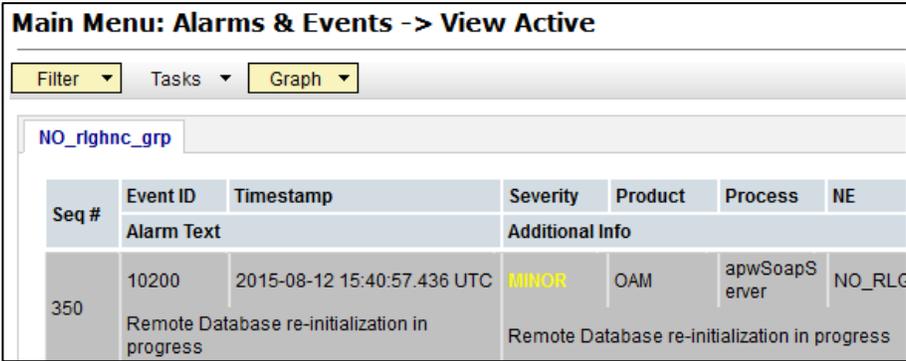
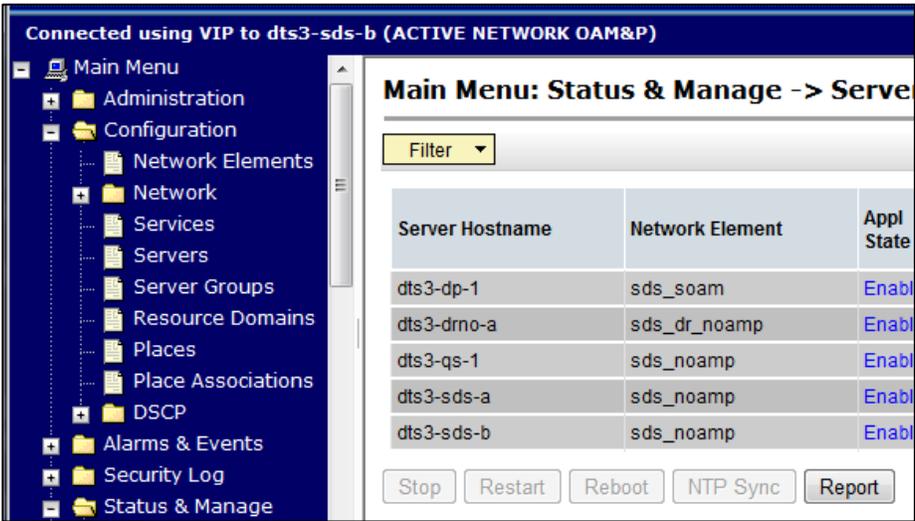
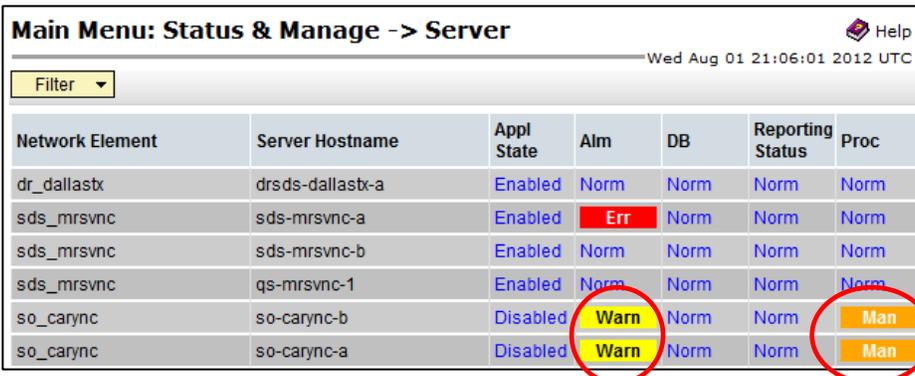
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
<p>17.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Edit]” screen as shown on the right.</p>	
<p>18.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “A” server and the “B” server from the list of “Servers” by clicking the check box next to their names.</p>	
<p>19.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	
<p>20.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	

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

Step	Procedure	Result
21. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Click the “Add” dialogue button for the VIP Address.</p>	
22. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Input the VIP Address</p>	
23. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Click the “Apply” dialogue button.</p>	
24. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	
25. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	
26. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>	

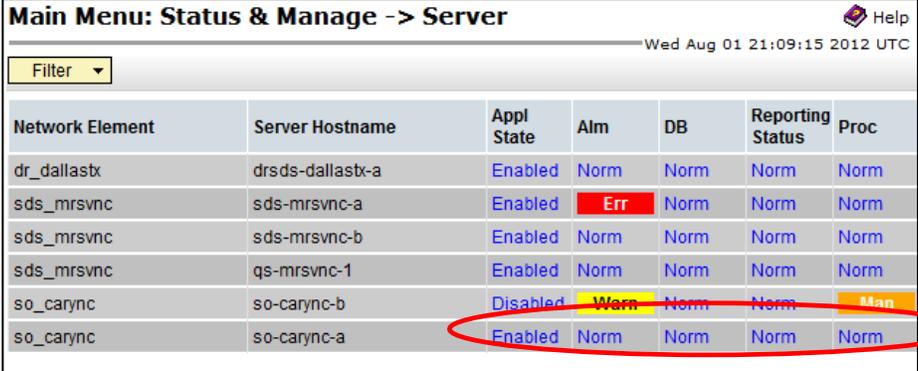
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result
27.	<p>Primary SDS VIP:</p> <p>Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) alarms are present with the SDS SOAM Server hostnames in the “Instance” field..</p>	
<div style="display: flex; align-items: center;">  <div> <p>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS.</p> <p>DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR BOTH SDS SOAM SERVERS.</p> </div> </div>		
28.	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	
29.	<p>Primary SDS VIP:</p> <p>1) The “A” and “B” SOAM servers should now appear in the right panel.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for both servers before proceeding to the next Step.</p>	

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

Step	Procedure	Result																																																	
<p>30.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select SOAM Server A. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SOAM Server A stating: “Successfully restarted application”.</p>	<p>Main Menu: Status & Manage -> Server</p> <p>Wed Aug 01 21:08:01 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>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>Disabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Man</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)? so-carync-a. Buttons: OK Cancel</p> <p>Main Menu: Status & Manage -> Server [Restart]</p> <p>Status message: so-carync-a: Successfully restarted application.</p>	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	Disabled	Warn	Norm	Norm	Man	so_carync	so-carync-a	Disabled	Warn	Norm	Norm	Man
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	Disabled	Warn	Norm	Norm	Man																																													
so_carync	so-carync-a	Disabled	Warn	Norm	Norm	Man																																													
<p>31.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	<p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Administration, Configuration, Network Elements, Network, Services, Servers, Server Groups, Resource Domains, Places, Place Associations, DSCP, Alarms & Events, Security Log, Status & Manage</p> <p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </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>Buttons: 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																																																	

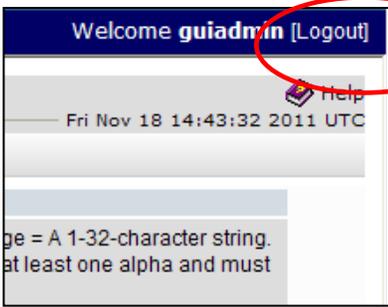
Procedure 9: Pairing the SDS SOAM Servers (All SOAM sites)

Step	Procedure	Result																																																	
<p>32.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status, & Proc” status columns all show “Norm” for SOAM Server A before proceeding to the next Step.</p> <p>NOTE: <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 “Status & Manage → Server” 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>Primary SDS VIP:</p> <p>1) Using the mouse, select SOAM Server B. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for SOAM Server B stating: “Successfully restarted application”.</p>	<p>Main Menu: Status & Manage -> Server</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>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_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> <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>Main Menu: Status & Manage -> Server [Restart]</p> <p>Status</p> <ul style="list-style-type: none"> so-carync-b: Successfully restarted application. <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </tr> </thead> <tbody> <tr> <td>sds_mvsvnc</td> <td>sds-mvsvnc-a</td> <td>Enabled</td> </tr> <tr> <td>sds_mvsvnc</td> <td>sds-mvsvnc-b</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_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	Server Hostname	Network Element	Appl State	sds_mvsvnc	sds-mvsvnc-a	Enabled	sds_mvsvnc	sds-mvsvnc-b	Err
Network Element	Server Hostname	Appl State	Alm	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																																																						
Server Hostname	Network Element	Appl State																																																										
sds_mvsvnc	sds-mvsvnc-a	Enabled																																																										
sds_mvsvnc	sds-mvsvnc-b	Err																																																										
<p>34.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	<p>Connected using VIP to dts3-sds-b (ACTIVE NETWORK OAM&P)</p> <p>Main Menu: Status & Manage -> Server</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> </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																																																	
35. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for SOAM Server A and Server B before proceeding to the next Step.</p>	<p>Main Menu: Status & Manage -> Server [Restart] </p> <p>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>NOTE: If user chooses to refresh the Server status screen in advance of the default setting (15-30 sec.). This may be done by simply reselecting the “Status & Manage -> Server” option from the Main menu on the left.</p>	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																																													
36. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Click the “Logout” link on the SDS server GUI.</p>																																																		
THIS PROCEDURE HAS BEEN COMPLETED																																																			

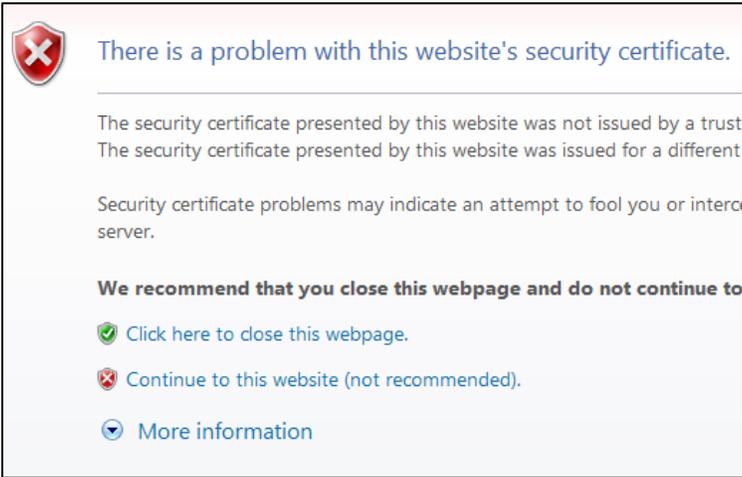
5.9 DP Installation (All SOAM sites)

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

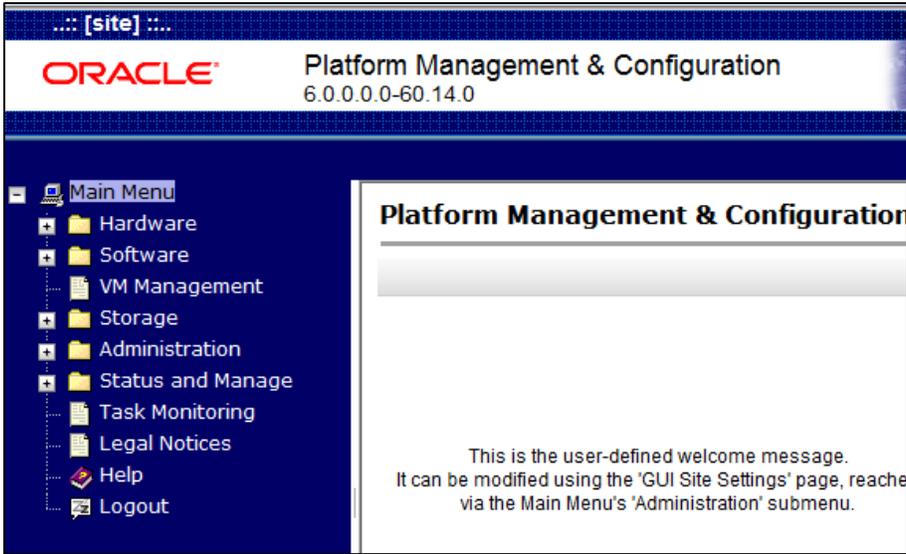
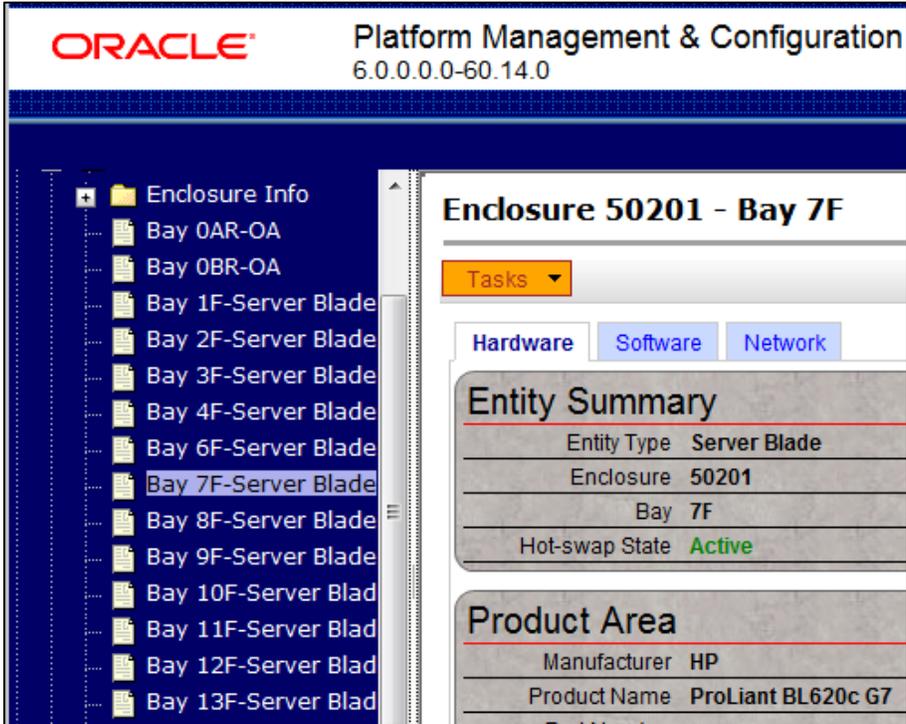
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
	<p>EXECUTE Appendix J: (Disable Hyperthreading (DP Only) ON EACH DP BLADE AFTER THIS PROCEDURE.</p>	

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

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

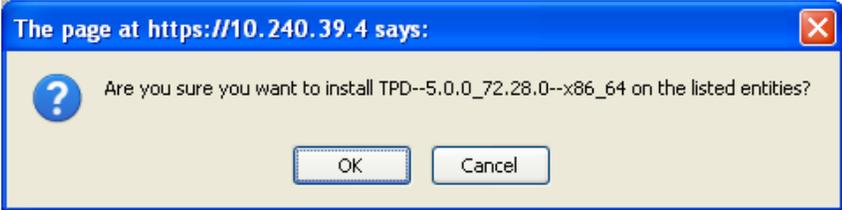
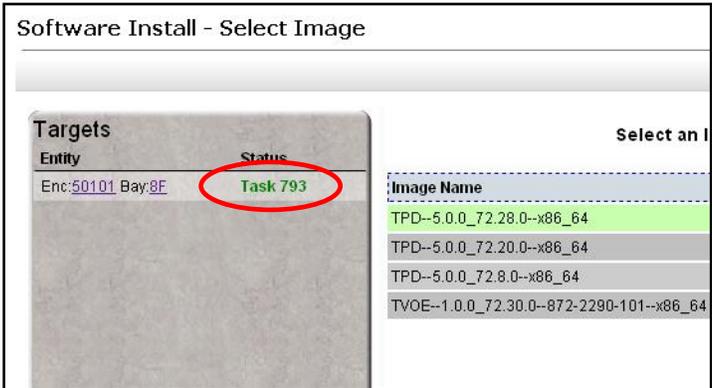
Procedure 10: Installing the Data Processor blade (All SOAM sites)

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

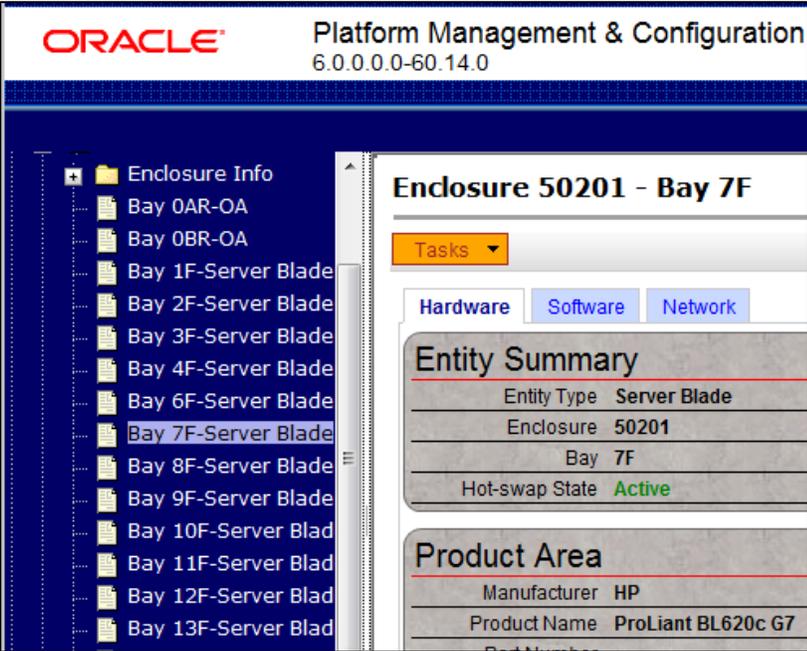
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result												
<p>5.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Install the operating system by clicking the “Install OS” dialogue button</p>													
<p>6.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>1) Select the desired TPD Image</p> <p>2) Click the “Start Software Install” dialogue button</p>	<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_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_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_86.14.0-OracleLinux6.5-x86_64	Bootable	x86_64												

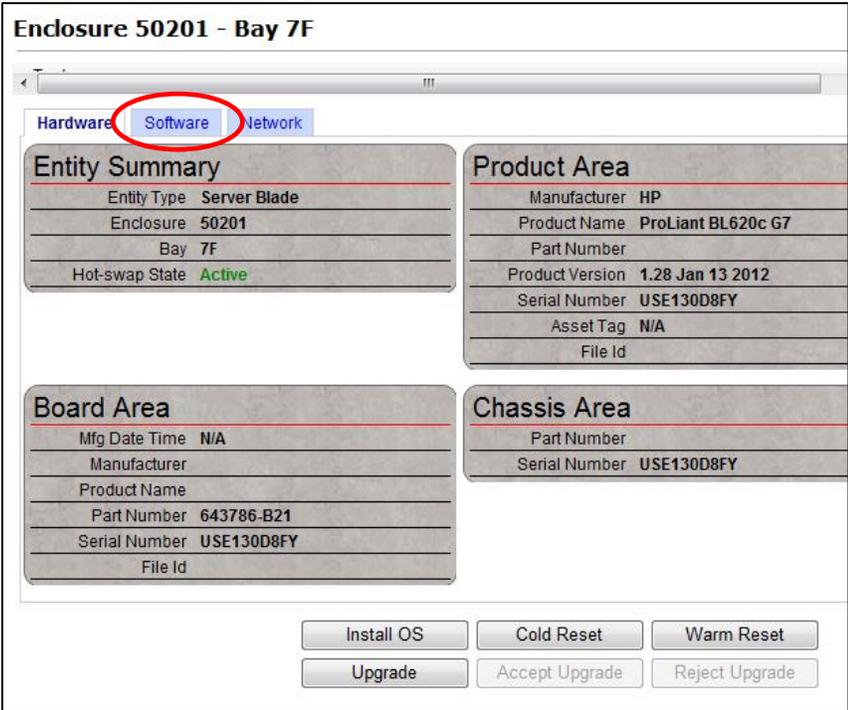
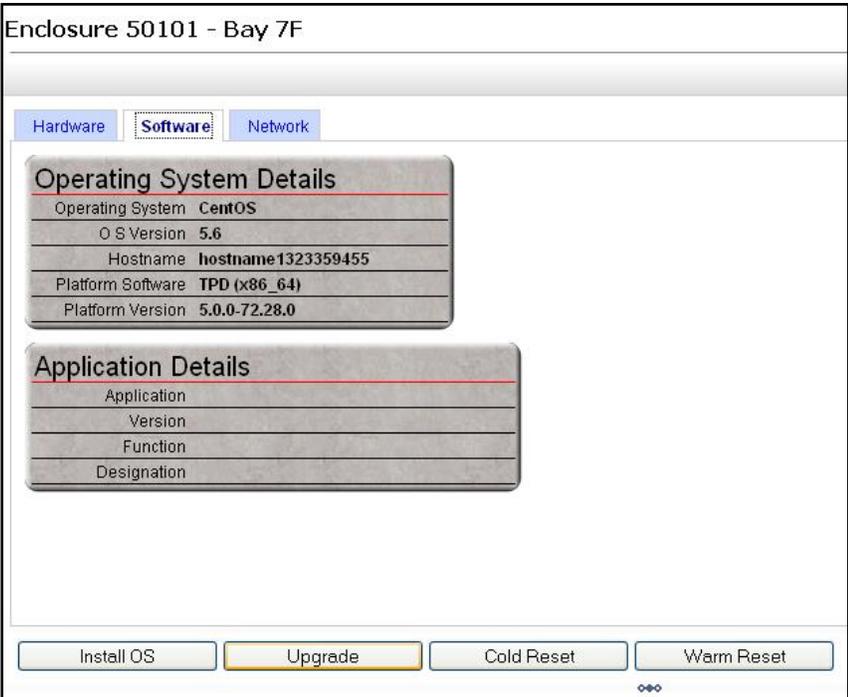
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result												
<p>7.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>The user should be presented with an “Are you sure you want to install” message box as shown on the right.</p> <p>Click the “OK” dialogue button</p>													
<p>8.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Note the task number assigned to SDS Application upgrade. This number will be used to track its progress.</p> <p>This task takes up to ~25 minutes.</p>													
<p>9.</p> <input type="checkbox"/>	<p>Execute “Install OS” for for each additional DP Server.</p>	<ul style="list-style-type: none"> Repeat Steps 3 - 9 of this procedure for each additional DP server blade in the SOAM enclosure. 												
<p>10.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>1) Select... Main Menu → Task Monitoring ...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>7367</td> <td>Backup PM&C</td> <td></td> </tr> <tr> <td>7366</td> <td>Backup PM&C</td> <td></td> </tr> <tr> <td>7365</td> <td>Backup PM&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													

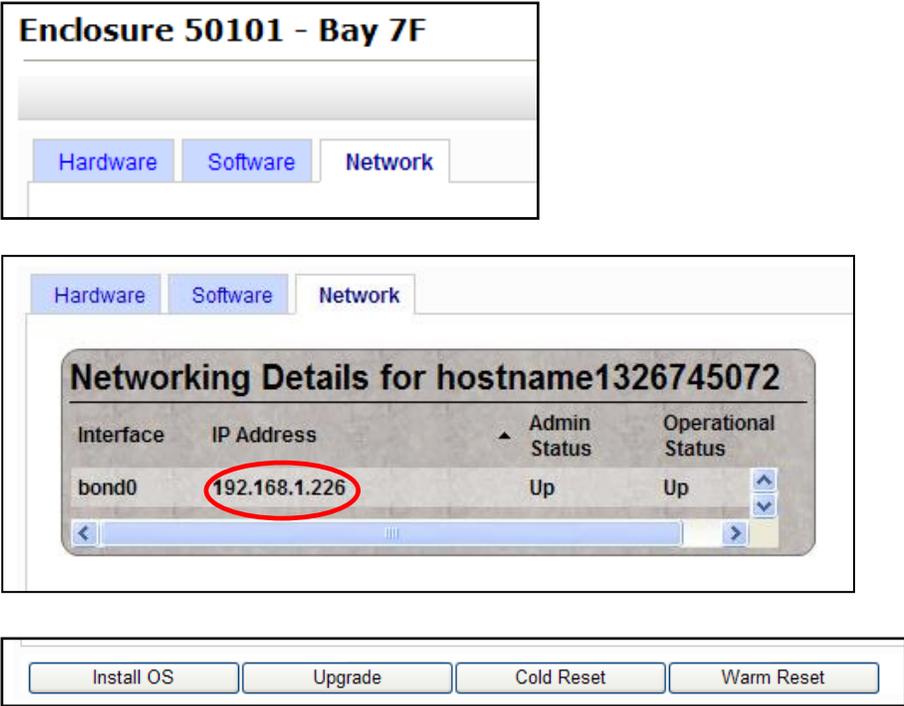
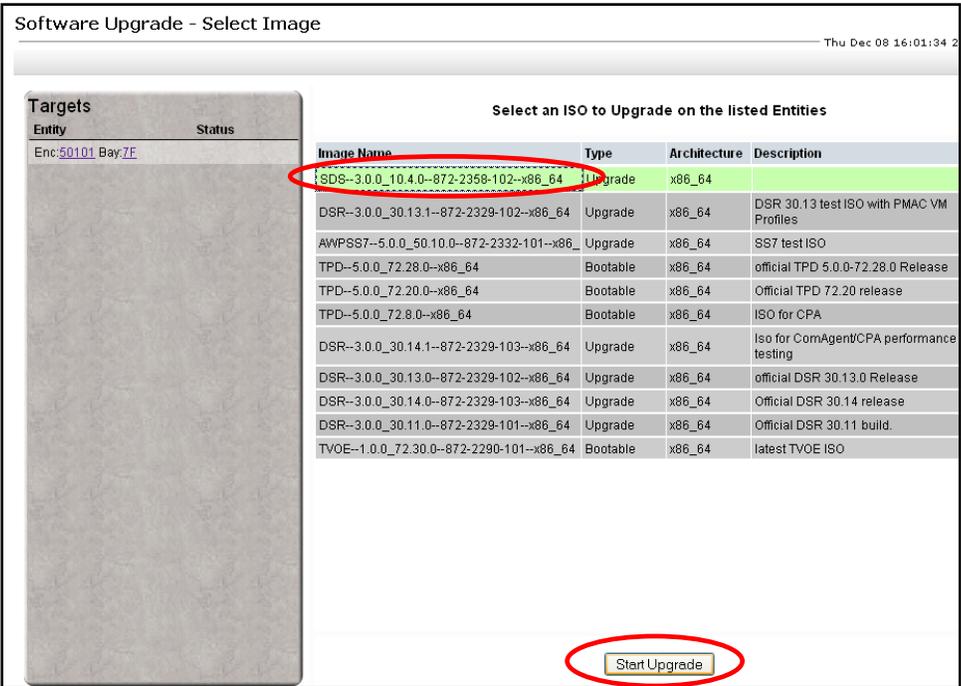
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																	
<p>11.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Wait until “Install OS” the tasks show 100% under the Progress 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&C</td> <td></td> <td>PM&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>PMAC Guest VM:</p> <p>Re-select the designated DP server blade from the Menu...</p> <p>Main Menu → Hardware → System Inventory → <Cabinet> → <Enclosure> → <Server Blade></p> <p>...as shown on the right.</p>	 <p>The screenshot shows the Oracle Platform Management & Configuration interface. The main menu on the left lists various enclosure and server blade options, with 'Bay 7F-Server Blade' selected. The main content area displays details for 'Enclosure 50201 - Bay 7F', including a 'Tasks' dropdown, tabs for 'Hardware', 'Software', and 'Network', and sections for 'Entity Summary' (Entity Type: Server Blade, Enclosure: 50201, Bay: 7F, Hot-swap State: Active) and 'Product Area' (Manufacturer: HP, Product Name: ProLiant BL620c G7).</p>																																																	

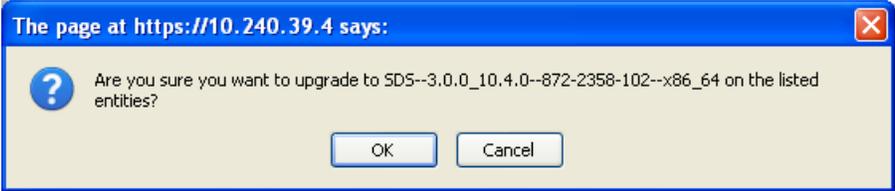
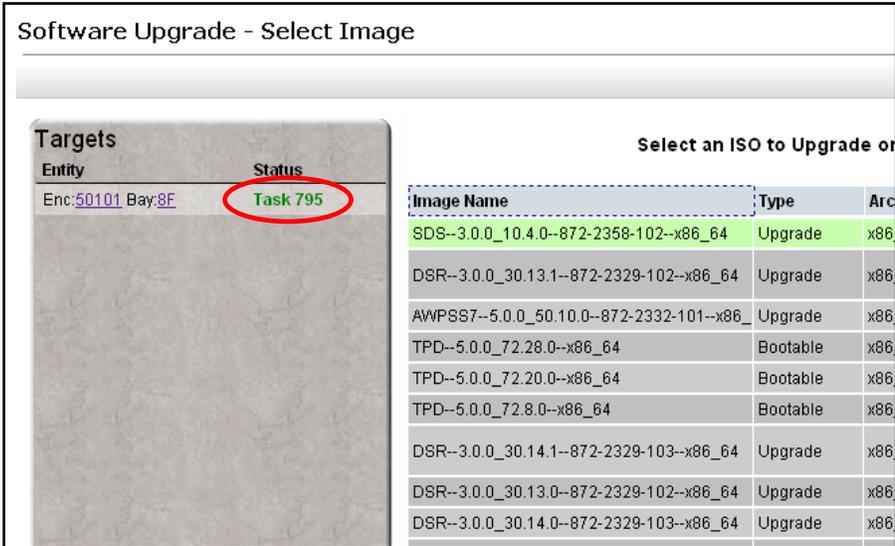
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																						
<p>13.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Select the “Software” tab.</p>	 <p>Enclosure 50201 - Bay 7F</p> <p>Hardware Software Network</p> <table border="1"> <caption>Entity Summary</caption> <tr><td>Entity Type</td><td>Server Blade</td></tr> <tr><td>Enclosure</td><td>50201</td></tr> <tr><td>Bay</td><td>7F</td></tr> <tr><td>Hot-swap State</td><td>Active</td></tr> </table> <table border="1"> <caption>Product Area</caption> <tr><td>Manufacturer</td><td>HP</td></tr> <tr><td>Product Name</td><td>ProLiant BL620c G7</td></tr> <tr><td>Part Number</td><td></td></tr> <tr><td>Product Version</td><td>1.28 Jan 13 2012</td></tr> <tr><td>Serial Number</td><td>USE130D8FY</td></tr> <tr><td>Asset Tag</td><td>N/A</td></tr> <tr><td>File Id</td><td></td></tr> </table> <table border="1"> <caption>Board Area</caption> <tr><td>Mfg Date Time</td><td>N/A</td></tr> <tr><td>Manufacturer</td><td></td></tr> <tr><td>Product Name</td><td></td></tr> <tr><td>Part Number</td><td>643786-B21</td></tr> <tr><td>Serial Number</td><td>USE130D8FY</td></tr> <tr><td>File Id</td><td></td></tr> </table> <table border="1"> <caption>Chassis Area</caption> <tr><td>Part Number</td><td></td></tr> <tr><td>Serial Number</td><td>USE130D8FY</td></tr> </table> <p>Buttons: Install OS, Cold Reset, Warm Reset, Upgrade, Accept Upgrade, Reject Upgrade</p>	Entity Type	Server Blade	Enclosure	50201	Bay	7F	Hot-swap State	Active	Manufacturer	HP	Product Name	ProLiant BL620c G7	Part Number		Product Version	1.28 Jan 13 2012	Serial Number	USE130D8FY	Asset Tag	N/A	File Id		Mfg Date Time	N/A	Manufacturer		Product Name		Part Number	643786-B21	Serial Number	USE130D8FY	File Id		Part Number		Serial Number	USE130D8FY
Entity Type	Server Blade																																							
Enclosure	50201																																							
Bay	7F																																							
Hot-swap State	Active																																							
Manufacturer	HP																																							
Product Name	ProLiant BL620c G7																																							
Part Number																																								
Product Version	1.28 Jan 13 2012																																							
Serial Number	USE130D8FY																																							
Asset Tag	N/A																																							
File Id																																								
Mfg Date Time	N/A																																							
Manufacturer																																								
Product Name																																								
Part Number	643786-B21																																							
Serial Number	USE130D8FY																																							
File Id																																								
Part Number																																								
Serial Number	USE130D8FY																																							
<p>14.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>1) Verify the correct TPD is shown.</p> <p>2) Verify “Application Details” are blank.</p>	 <p>Enclosure 50101 - Bay 7F</p> <p>Hardware Software Network</p> <table border="1"> <caption>Operating System Details</caption> <tr><td>Operating System</td><td>CentOS</td></tr> <tr><td>O S Version</td><td>5.6</td></tr> <tr><td>Hostname</td><td>hostname1323359455</td></tr> <tr><td>Platform Software</td><td>TPD (x86_64)</td></tr> <tr><td>Platform Version</td><td>5.0.0-72.28.0</td></tr> </table> <table border="1"> <caption>Application Details</caption> <tr><td>Application</td><td></td></tr> <tr><td>Version</td><td></td></tr> <tr><td>Function</td><td></td></tr> <tr><td>Designation</td><td></td></tr> </table> <p>Buttons: Install OS, Upgrade, Cold Reset, Warm Reset</p>	Operating System	CentOS	O S Version	5.6	Hostname	hostname1323359455	Platform Software	TPD (x86_64)	Platform Version	5.0.0-72.28.0	Application		Version		Function		Designation																					
Operating System	CentOS																																							
O S Version	5.6																																							
Hostname	hostname1323359455																																							
Platform Software	TPD (x86_64)																																							
Platform Version	5.0.0-72.28.0																																							
Application																																								
Version																																								
Function																																								
Designation																																								

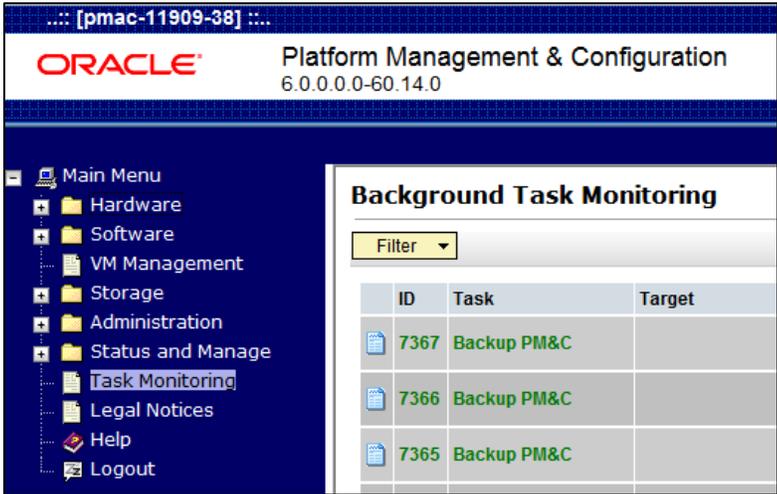
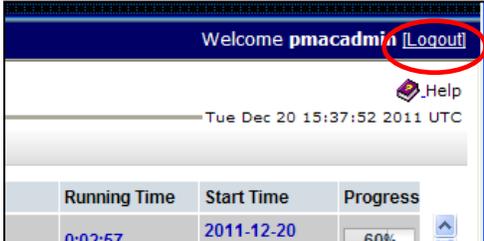
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																
<p>15.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>1) Select the “Network” tab.</p> <p>2) Make note of the control IP address for this DP, called “bond0”; it will be referenced later</p> <p>3) Select the “Upgrade” button.</p>	 <p>The screenshot shows the 'Enclosure 50101 - Bay 7F' interface with the 'Network' tab selected. A 'Networking Details for hostname1326745072' window is open, displaying a table of network interfaces. The 'bond0' interface has an IP address of '192.168.1.226', which is circled in red. Below the table are buttons for 'Install OS', 'Upgrade', 'Cold Reset', and 'Warm Reset'.</p>																																																
<p>16.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>1) Select the correct SDS version from the “Image Name” list. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Start Upgrade” dialogue button</p>	 <p>The screenshot shows the 'Software Upgrade - Select Image' dialog. A table lists various ISOs for upgrade. The entry 'SDS-3.0.0_10.4.0-872-2358-102-x86_64' is highlighted in green and circled in red. A 'Start Upgrade' button is also circled in red at the bottom right.</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_30.14.1-872-2329-103-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td>Iso for ComAgent/CPA performance testing</td> </tr> <tr> <td>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_30.14.1-872-2329-103-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
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_30.14.1-872-2329-103-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																																															

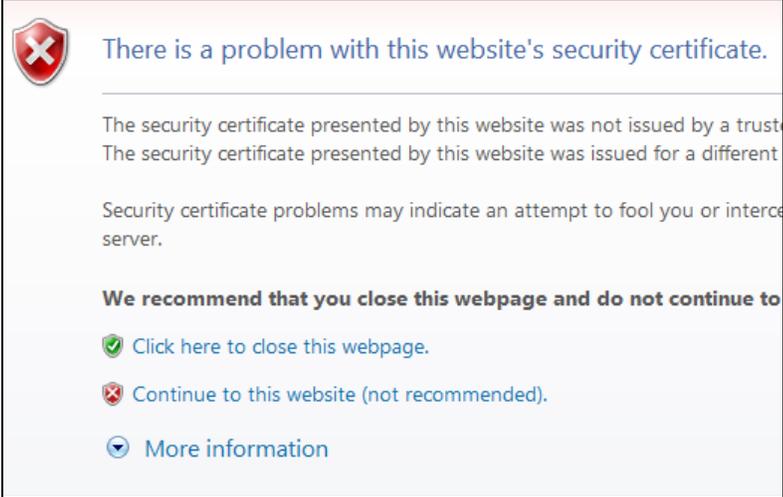
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																														
<p>17.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>The user should be presented with an “Are you sure you want to upgrade” message boxas shown on the right.</p> <p>Click the “OK” dialogue button.</p>																															
<p>18.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Note the task number assigned to upgrade SDS application . This number will be used to track its progress.</p> <p>This task takes up to ~20 minutes.</p>	 <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"> Repeat Steps 10 - 18 of this procedure for each additional DP server blade installed in the SOAM enclosure. 																														

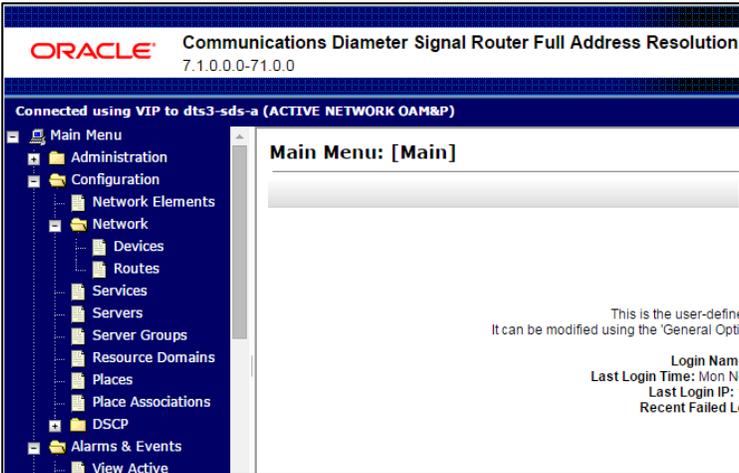
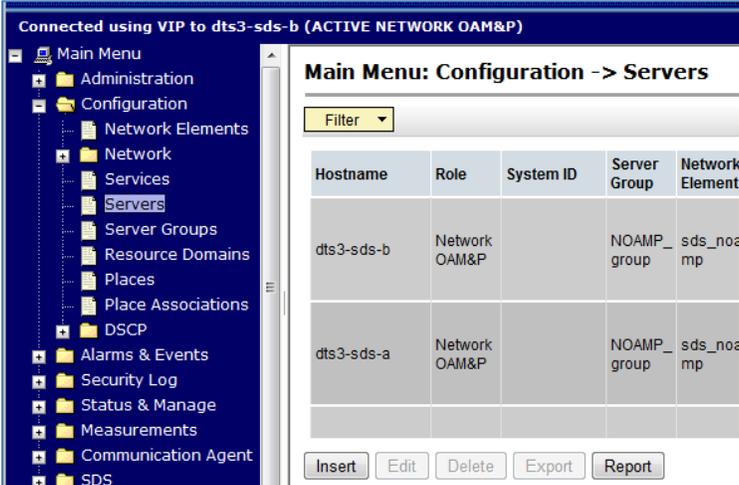
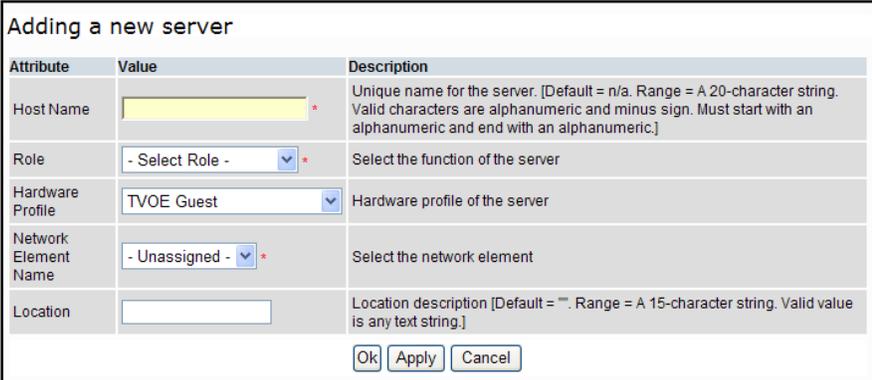
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																	
<p>20.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Select...</p> <p>Main Menu</p> <p>→ Task Monitoring</p> <p>...as shown on the right.</p>																																																		
<p>21.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM:</p> <p>Wait until “Upgrade” tasks show 100% under the Progress 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&C</td> <td></td> <td>PM&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>PMAC Guest VM::</p> <p>Click the “Logout” link on the PMAC server GUI.</p>																																																		

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

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

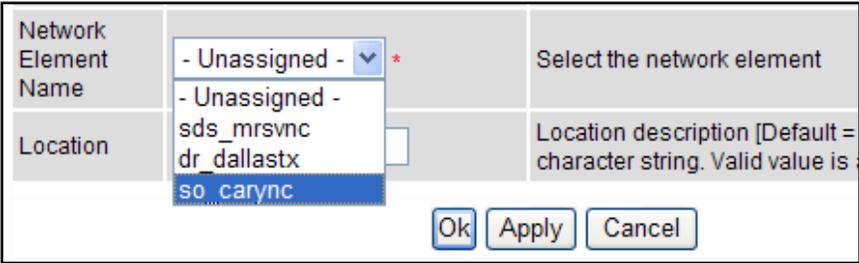
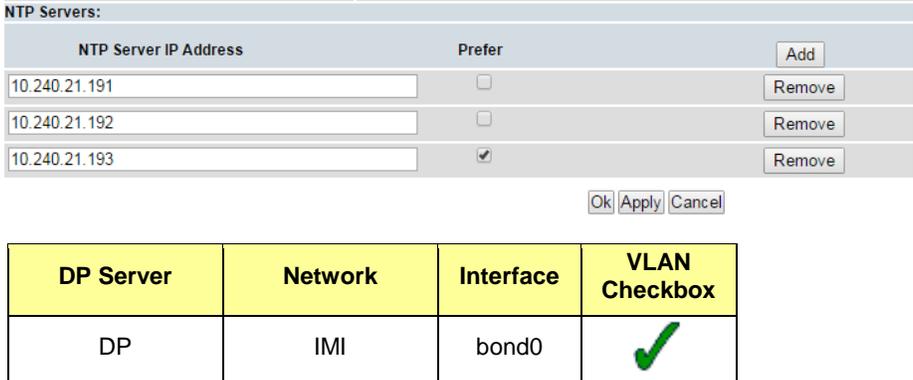
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																		
<p>25.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>	 <p>The screenshot shows the Oracle Communications Diameter Signal Router Full Address Resolution interface. The title bar indicates the version is 7.1.0.0.0-71.0.0. The interface is connected to VIP dts3-sds-a. A navigation tree on the left includes Main Menu, Administration, Configuration, Network Elements, Network, Devices, Routes, Services, Servers, Server Groups, Resource Domains, Places, Place Associations, DSCP, Alarms & Events, and View Active. The main content area displays 'Main Menu: [Main]' and some user information like 'Login Name', 'Last Login Time', and 'Last Login IP'.</p>																		
<p>26.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Select... Main Menu → Configuration → Servers ...as shown on the right</p> <p>2) Select the “Insert” dialogue button.</p>	 <p>The screenshot shows the 'Main Menu: Configuration -> Servers' screen. The navigation tree on the left is expanded to 'Servers'. The main content area features a table with columns: Hostname, Role, System ID, Server Group, and Network Element. Two server entries are listed: dts3-sds-b and dts3-sds-a, both with Role 'Network OAM&P' and Server Group 'NOAMP_group'. Below the table are buttons for 'Insert', 'Edit', 'Delete', 'Export', and 'Report'.</p>																		
<p>27.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user is now presented with the “Adding a new server” configuration screen.</p>	 <p>The screenshot shows the 'Adding a new server' configuration dialog box. It contains a table with the following fields:</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Host Name</td> <td><input type="text"/></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> <tr> <td>Role</td> <td>- Select Role -</td> <td>Select the function of the server</td> </tr> <tr> <td>Hardware Profile</td> <td>TVOE Guest</td> <td>Hardware profile of the server</td> </tr> <tr> <td>Network Element Name</td> <td>- Unassigned -</td> <td>Select the network element</td> </tr> <tr> <td>Location</td> <td><input type="text"/></td> <td>Location description [Default = "". Range = A 15-character string. Valid value is any text string.]</td> </tr> </tbody> </table> <p>Buttons for 'Ok', 'Apply', and 'Cancel' are located at the bottom.</p>	Attribute	Value	Description	Host Name	<input type="text"/>	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.]	Role	- Select Role -	Select the function of the server	Hardware Profile	TVOE Guest	Hardware profile of the server	Network Element Name	- Unassigned -	Select the network element	Location	<input type="text"/>	Location description [Default = "". Range = A 15-character string. Valid value is any text string.]
Attribute	Value	Description																		
Host Name	<input type="text"/>	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.]																		
Role	- Select Role -	Select the function of the server																		
Hardware Profile	TVOE Guest	Hardware profile of the server																		
Network Element Name	- Unassigned -	Select the network element																		
Location	<input type="text"/>	Location description [Default = "". Range = A 15-character string. Valid value is any text string.]																		

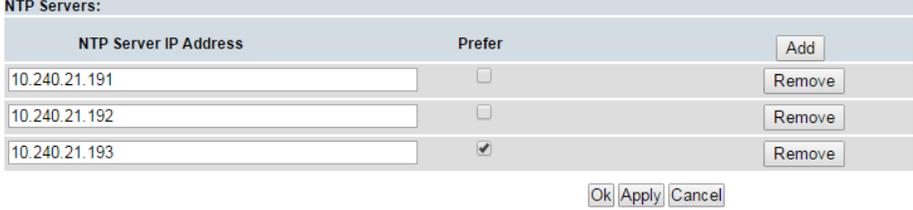
Procedure 10: Installing the Data Processor blade (All SOAM sites)

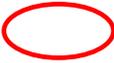
Step	Procedure	Result																														
28. <input type="checkbox"/>	Primary SDS VIP: Input the assigned “hostname” for the Database Processor (DP).	<div style="border: 1px solid black; padding: 5px;"> <p>Adding a new server</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>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.]																														
29. <input type="checkbox"/>	Primary SDS VIP: Select “MP” for the server Role from the pull-down menu.	<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																														
30. <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>Using the chart provided, select the DP Hardware Profile which is appropriate to your installation from the pull-down menu.</p> <p>NOTE: <i>The choice of DP HW Profile is dictated by the placement of the XMI switch pair in the c-Class enclosure.</i></p>	<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;">Ok Apply 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)

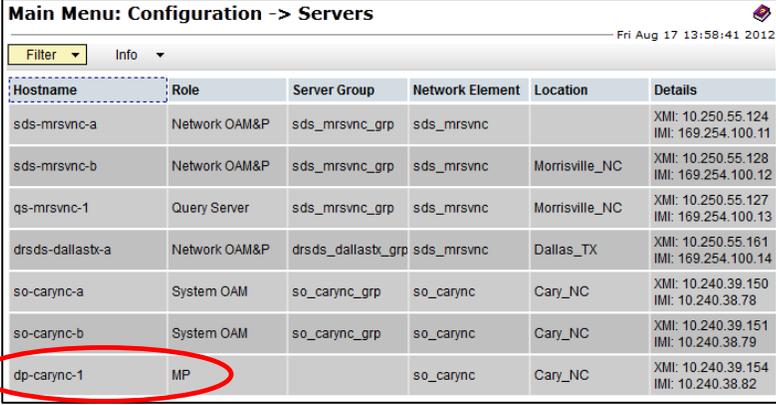
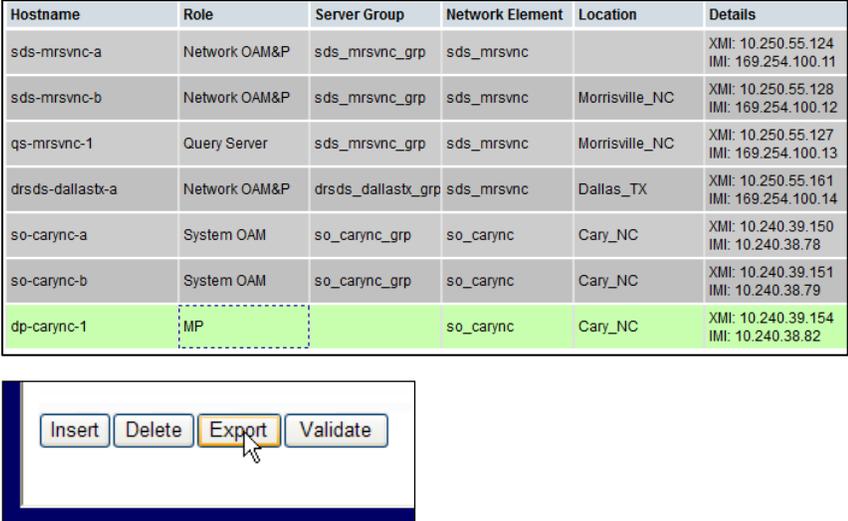
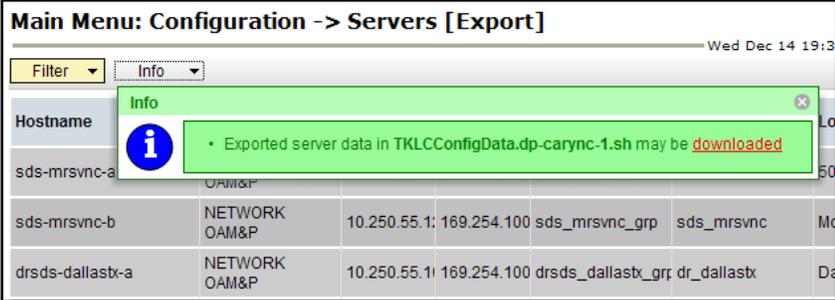
Step	Procedure	Result																				
<p>31.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the Network Element Name of the SOAM site where the DP is physically located from the list of available NEs in the pull-down menu</p>	 <p>NOTE: After the Network Element Name is selected, the Interfaces fields will be displayed, as seen in Step 33</p>																				
<p>32.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Enter the site location.</p> <p>NOTE: Location is an optional field.</p>																					
<p>33.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Enter the IMI IP address for the DP Server.</p> <p>2) Set the IMI Interface to “bond0” and “check” the VLAN checkbox.</p>	 <p>NTP Servers:</p> <table border="1"> <thead> <tr> <th>NTP Server IP Address</th> <th>Prefer</th> <th></th> </tr> </thead> <tbody> <tr> <td>10.240.21.191</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.240.21.192</td> <td><input type="checkbox"/></td> <td>Remove</td> </tr> <tr> <td>10.240.21.193</td> <td><input checked="" type="checkbox"/></td> <td>Remove</td> </tr> </tbody> </table> <p>Ok Apply Cancel</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>	NTP Server IP Address	Prefer		10.240.21.191	<input type="checkbox"/>	Remove	10.240.21.192	<input type="checkbox"/>	Remove	10.240.21.193	<input checked="" type="checkbox"/>	Remove	DP Server	Network	Interface	VLAN Checkbox	DP	IMI	bond0	<input checked="" type="checkbox"/>
NTP Server IP Address	Prefer																					
10.240.21.191	<input type="checkbox"/>	Remove																				
10.240.21.192	<input type="checkbox"/>	Remove																				
10.240.21.193	<input checked="" type="checkbox"/>	Remove																				
DP Server	Network	Interface	VLAN Checkbox																			
DP	IMI	bond0	<input checked="" type="checkbox"/>																			

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

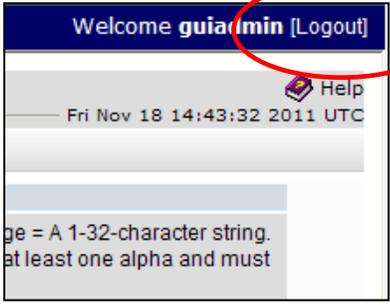
Step	Procedure	Result													
<p>34.</p>	<p>1) Enter the customer assigned XMI IP address for the DP Server.</p> <p>Layer 3 (No VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond1” and “DO NOT check” the VLAN checkbox. - OR -</p> <p>Layer 2 (VLAN tagging used for XMI)</p> <p>2) Set the XMI Interface to “bond0” and “check” the VLAN checkbox.</p>	<table border="1"> <thead> <tr> <th>DP Server</th> <th>Network</th> <th>VLAN tagging (on XMI network)</th> <th>Interface</th> <th>VLAN Checkbox</th> </tr> </thead> <tbody> <tr> <td rowspan="2">DP</td> <td rowspan="2">XMI</td> <td>No</td> <td>bond1</td> <td>✗</td> </tr> <tr> <td>Yes</td> <td>bond0</td> <td>✓</td> </tr> </tbody> </table> <p>!!! CAUTION !!! It is crucial that the correct network configuration be selected in Steps 33 - 34 of this procedure. Choosing an incorrect configuration will result in the need to re-install the OS and restart the DP Server installation procedure over from the beginning.</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>35.</p>	<p>Primary SDS VIP:</p> <p>1) Click the “NTP Servers:” “Add” dialogue button.</p> <p>2) Enter the NTP Server IP Address for an NTP Server.</p> <p>3) Enter 3 NTP Server IP address, repeat (1) and (2) to enter it.</p> <p>4) Optionally, click the “Prefer” checkbox to prefer one NTP Server over the other.</p>	  													



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

Step	Procedure	Result																																																
<p>39.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>On the “Configuration → Servers” screen, find the newly added DP server in the list.</p> <p>Note: The DP server will have a “MP” role.</p>	 <p>Main Menu: Configuration -> Servers 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&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&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>drsds-dallastx-a</td> <td>Network OAM&P</td> <td>drsds_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	drsds-dallastx-a	Network OAM&P	drsds_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																																													
drsds-dallastx-a	Network OAM&P	drsds_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>Primary SDS VIP:</p> <p>1) Using the mouse, select the newly added DP server entry. The line entry containing the server with a “MP” role should now be highlighted in GREEN.</p> <p>2) Click the “Export” dialogue button from the bottom left corner of the screen.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>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&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&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>drsds-dallastx-a</td> <td>Network OAM&P</td> <td>drsds_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, Export, 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	drsds-dallastx-a	Network OAM&P	drsds_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																																													
drsds-dallastx-a	Network OAM&P	drsds_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>Primary SDS VIP:</p> <p>The user will receive a banner information message showing a download link for the “MP” configuration data.</p>	 <p>Main Menu: Configuration -> Servers [Export] Wed Dec 14 19:3</p> <p>Info: Exported server data in TKLCConfigData.dp-carync-1.sh may be downloaded</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&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&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>drsds-dallastx-a</td> <td>NETWORK OAM&P</td> <td>10.250.55.1; 169.254.100</td> <td>drsds_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	drsds-dallastx-a	NETWORK OAM&P	10.250.55.1; 169.254.100	drsds_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																																													
drsds-dallastx-a	NETWORK OAM&P	10.250.55.1; 169.254.100	drsds_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"> Repeat Steps 26 - 41 of this procedure for each additional DP server installed in the SOAM cabinet. 																																																

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

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

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

Step	Procedure	Result
<p>50.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Copy the server configuration file to the Control IP for the DP.</p> <p>Note: The Control IP for each DP is obtained in Step 15 of this procedure.</p>	<pre>\$ sudo scp -p /tmp/<configuration_file> admusr@<DP_Control_IP>:/var/TKLC/db/filemgmt/ Password: <admusr_password> TKLCConfigData.dp-carync-1.sh 100% 1757 1.7KB/s 00:00</pre>
<p>51.</p> <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>Connect to the DP server console from the PMAC Server Console.</p>	<pre>\$ ssh <DP_Control_IP> Password: <admusr_password></pre>
<p>52.</p> <input type="checkbox"/>	<p>DP Server:</p> <p>Copy the SDS DP configuration file to the “/var/tmp” directory on the server, making sure to rename the file by omitting the server hostname (shown in red) from the file name.</p>	<p>Example:</p> <p>TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh</p> <pre>\$ sudo cp -p /var/TKLC/db/filemgmt/TKLCConfigData.dp-carync-1.sh /var/tmp/TKLCConfigData.sh</pre> <p>NOTE: The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.</p>
<p>53.</p> <input type="checkbox"/>	<p>DP Server:</p> <p>After the script completes, a broadcast message will be sent to the terminal.</p>	<p>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</p> <pre>Broadcast message from admusr (Mon Dec 14 15:47:33 2009): Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details. Please remove the USB flash drive if connected and reboot the server. <ENTER></pre>
<p>54.</p>	<p>DP Server:</p> <p>Verify that the desired Time Zone is currently in use.</p>	<pre>\$ date Mon Aug 10 19:34:51 UTC 2015</pre>

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

Step	Procedure	Result
55.	<p>DP Server:</p> <p>If the desired Time Zone was not presented in the previous step...</p> <p>Configure the Time Zone.</p> <p>Otherwise, skip to the next step.</p>	<p>Example: <code>\$ sudo set_ini_tz.pl <time_zone></code></p> <p>NOTE: The following command example sets the time to the "UTC" (aka GMT) time zone which is recommended for all sites.</p> <p>The user may replace, as appropriate, with the customer requested time zone for this site installation. See Appendix H for a list of valid time zones.</p> <p><code>\$ sudo set_ini_tz.pl "Etc/UTC"</code></p>
56. <input type="checkbox"/>	<p>DP Server:</p> <p>Initiate a reboot of the DP.</p>	<p><code>\$ sudo init 6</code></p>
57. <input type="checkbox"/>	<p>DP Server:</p> <p>Output similar to that shown on the right may be observed as the server initiates a reboot.</p>	<p><code>\$ Connection to 192.168.1.226 closed by remote host.</code> <code>Connection to 192.168.1.226 closed.</code></p>
58. <input type="checkbox"/>	<p>PMAC Guest VM:</p> <p>After the DP server has completed reboot...</p> <p>Re-connect to the DP server console from the PMAC Server Console</p>	<p><code>\$ sudo ssh <DP_Control_IP></code> Password: <code><admusr_password></code></p>
59. <input type="checkbox"/>	<p>DP Server:</p> <p>1) Verify that the XMI IP address input in Step 33 has been applied to "bond1".</p> <p>2) Verify that the IMI IP address input in Step 33 has been applied to "bond0.4".</p> <p>NOTE: Exact bond configuration may vary for custom network implementations.</p>	<pre>\$ ifconfig grep in bond0 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 inet addr:192.168.1.226 Bcast:192.168.1.255 Mask:255.255.255.0 bond0.4 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 inet addr:10.240.38.82 Bcast:10.240.38.127 Mask:255.255.255.192 bond1 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 inet addr:10.240.39.154 Bcast:10.240.39.255 Mask:255.255.255.128 eth01 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 eth02 Link encap:Ethernet HWaddr B4:99:BA:AC:BD:64 lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0</pre>

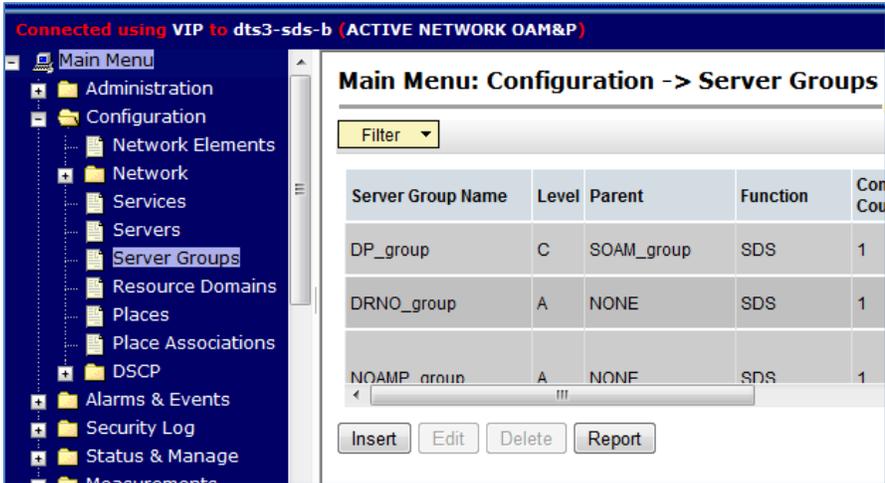
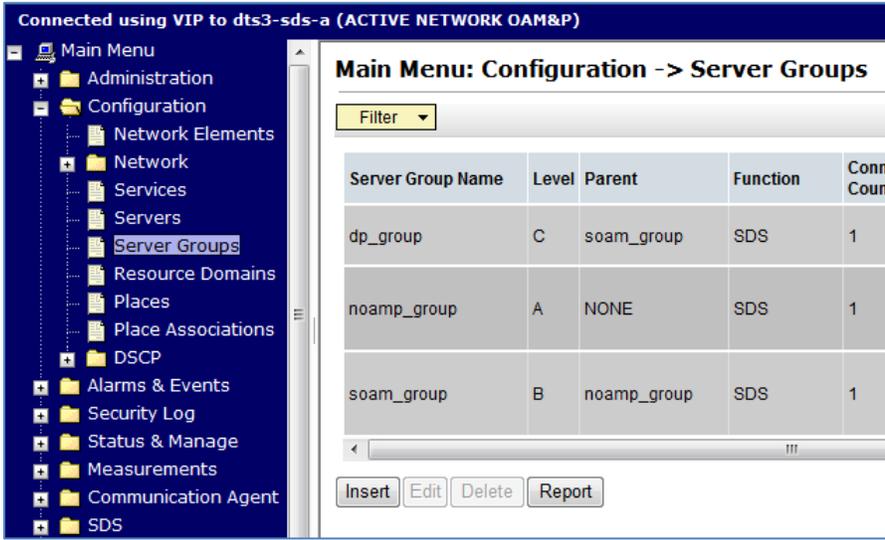
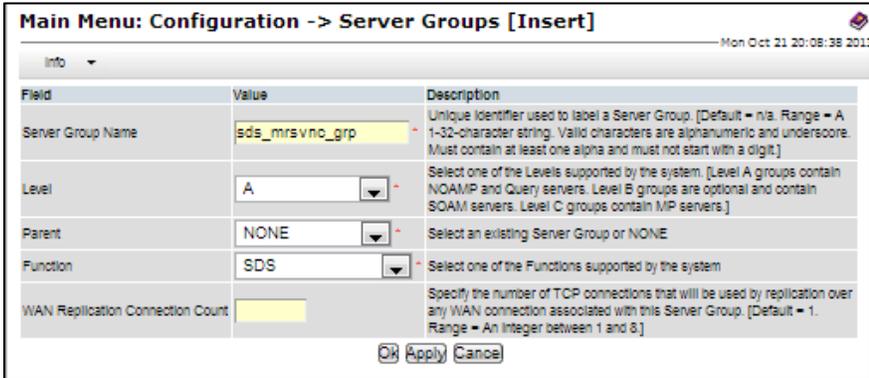
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>60.</p> <input type="checkbox"/>	<p>DP Server: From the DP Server, “ping” the IMI IP address of the SOAM-A Guest.</p>	<pre>\$ ping -c 5 10.240.38.78 PING 10.240.38.78 (10.240.38.78) 56(84) bytes of data. 64 bytes from 10.240.38.78: icmp_seq=1 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=2 ttl=64 time=0.017 ms 64 bytes from 10.240.38.78: icmp_seq=3 ttl=64 time=0.031 ms 64 bytes from 10.240.38.78: icmp_seq=4 ttl=64 time=0.028 ms 64 bytes from 10.240.38.78: icmp_seq=5 ttl=64 time=0.030 ms 64 bytes from 10.240.38.78: icmp_seq=6 ttl=64 time=0.028 ms --- 10.240.38.78 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5000ms rtt min/avg/max/mdev = 0.017/0.027/0.031/0.007 ms</pre>
<p>61.</p> <input type="checkbox"/>	<p>DP Server: From the DP Server, “ping” the local XMI Gateway address associated with the SOAM NE.</p>	<pre>\$ ping -c 5 10.240.39.1 PING 10.240.39.1 (10.240.39.1) 56(84) bytes of data. 64 bytes from 10.240.39.1: icmp_seq=1 ttl=64 time=0.024 ms 64 bytes from 10.240.39.1: icmp_seq=2 ttl=64 time=0.033 ms 64 bytes from 10.240.39.1: icmp_seq=3 ttl=64 time=0.032 ms 64 bytes from 10.240.39.1: icmp_seq=4 ttl=64 time=0.026 ms 64 bytes from 10.240.39.1: icmp_seq=5 ttl=64 time=0.027 ms 64 bytes from 10.240.39.1: icmp_seq=6 ttl=64 time=0.026 ms --- 10.240.39.1 ping statistics --- 6 packets transmitted, 6 received, 0% packet loss, time 5004ms rtt min/avg/max/mdev = 0.024/0.028/0.033/0.003 ms</pre>
<p>62.</p> <input type="checkbox"/>	<p>DP Server: Use the “ntpq” command to verify connectivity to the assigned Primary and Secondary NTP server(s).</p>	<pre>\$ ntpq -np remote refid st t when poll reach delay offset jitter ===== +10.250.32.10 192.5.41.209 2 u 139 1024 377 2.008 1.006 1.049 *10.250.32.51 192.5.41.209 2 u 979 1024 377 0.507 1.664 0.702</pre>
<p>63.</p> <input type="checkbox"/>	<p>DP Server: Execute a “syscheck” to verify the current health of the server.</p>	<pre>\$ sudo syscheck Running modules in class hardware... OK Running modules in class disk... OK Running modules in class net... OK Running modules in class system... OK Running modules in class proc... OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>

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

Step	Procedure	Result
<p>64.</p>	<p>DP Server: Accept upgrade to the Application Software.</p>	<pre>\$ sudo /var/TKLC/backout/accept</pre> <p>Called with options: --accept Loading Upgrade::Backout::RPM Accepting Upgrade Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning message from MOTD. Cleaning up RPM config backup files... Checking / Checking /boot Checking /tmp Checking /usr Checking /var Checking /var/TKLC 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</p> <p>NOTE: EXECUTE Appendix J: Disable Hyperthreading (DP Only) on server before exiting.</p>
<p>65.</p> <p><input type="checkbox"/></p>	<p>DP Server: Exit from the command line to return the server console to the login prompt.</p>	<pre>\$ exit</pre> <p>Connection to 192.168.1.199 closed.</p>
<p>66.</p> <p><input type="checkbox"/></p>	<p>Apply the configuration file for each additional DP server installed at the SOAM site.</p>	<ul style="list-style-type: none"> Repeat Steps 50 - 65 of this procedure for each subtending DP server installed in the same SOAM enclosure.
<p>67.</p> <p><input type="checkbox"/></p>	<p>PMAC Guest VM: Exit from the PMAC server.</p>	<pre>\$ exit</pre>

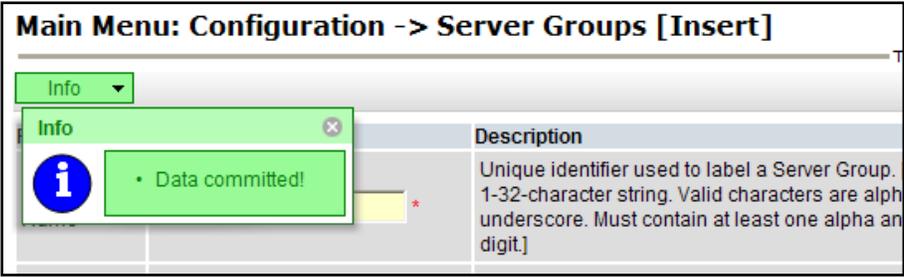
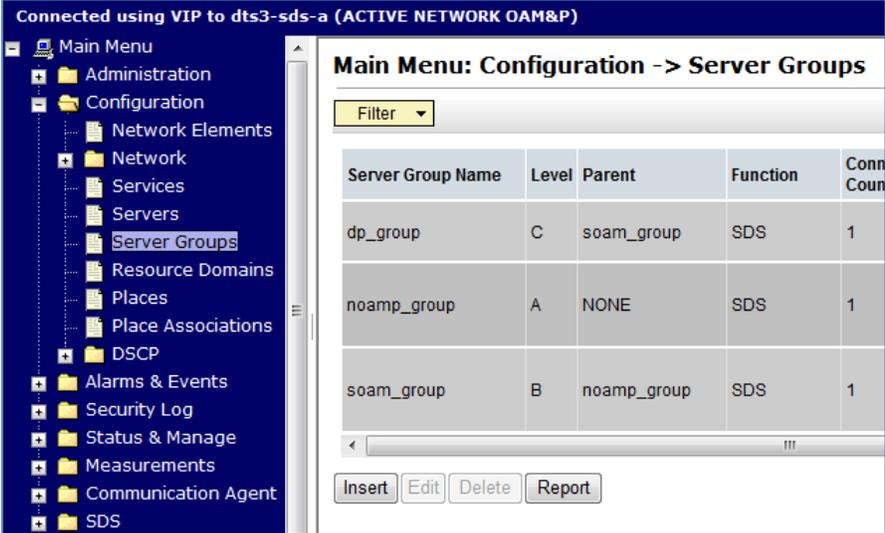
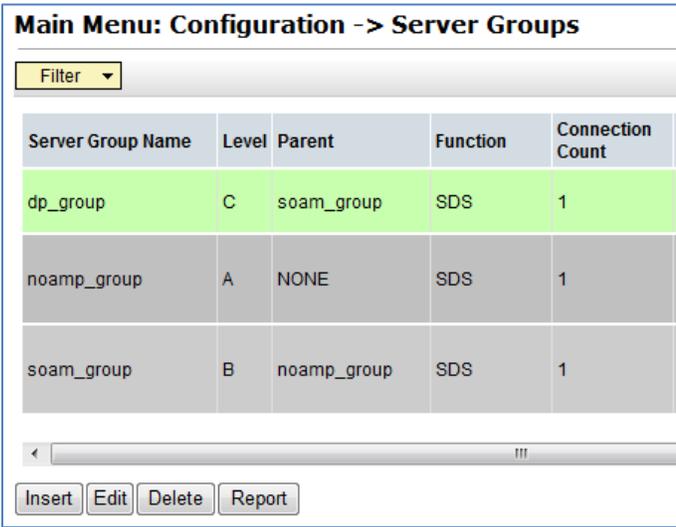
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>68.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Configuration → Server Groups</p> <p>...as shown on the right.</p>	
<p>69.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user will be presented with the “Server Groups” configuration screen as shown on the right.</p> <p>2) Select the “Insert” dialogue button from the bottom left corner of the screen.</p>	
<p>70.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Server Groups [Insert]” screen as shown on the right.</p> <p>NOTE: Leave the “WAN Replication Connection Count” blank (it will default to 1).</p>	

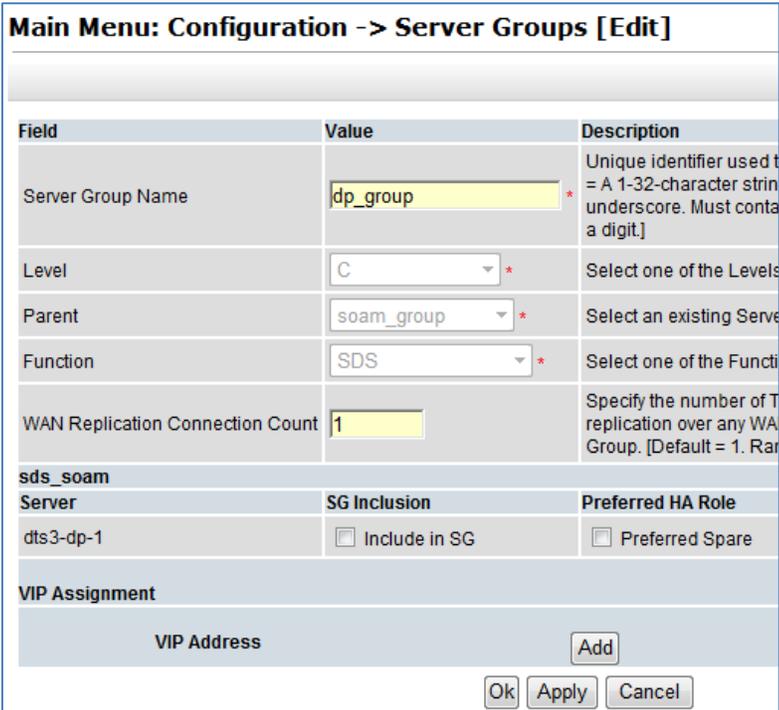
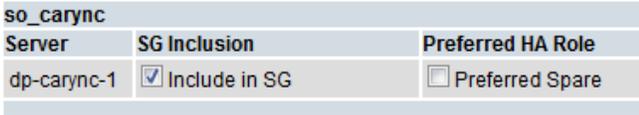
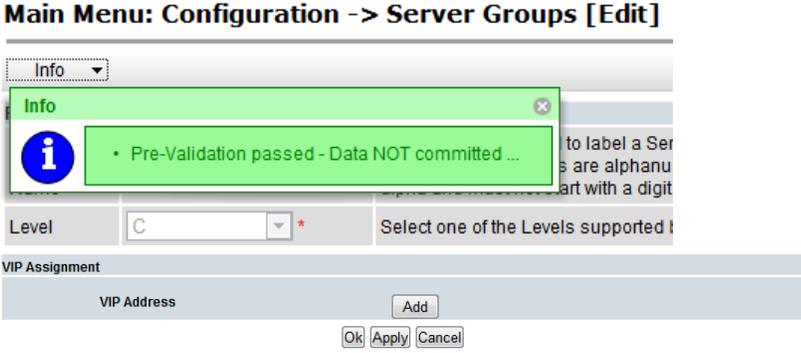
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result															
<p>71. <input type="checkbox"/></p>	<p>Primary SDS VIP: Input the Server Group Name.</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name</td> <td>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>NOTE: Each DP will have its own server group. Group names may be differentiated by assigning each a unique name.</p>	Field	Value	Description	Server Group Name	dp_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. <input type="checkbox"/></p>	<p>Primary SDS VIP: Select “C” on the “Level” 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. <input type="checkbox"/></p>	<p>Primary SDS VIP: Select System OAM group on the “Parent” 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. <input type="checkbox"/></p>	<p>Primary SDS VIP: Select “SDS” on the “Function” 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. <input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	<p>Main Menu: Configuration -> Server Groups [Insert]</p> <table border="1"> <tbody> <tr> <td>Info</td> <td colspan="2">Info • Pre-Validation passed - Data NOT committed ...</td> </tr> <tr> <td>Level</td> <td>C *</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>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>	Info	Info • Pre-Validation passed - Data NOT committed ...		Level	C *	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	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
Info	Info • Pre-Validation passed - Data NOT committed ...																
Level	C *	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	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															

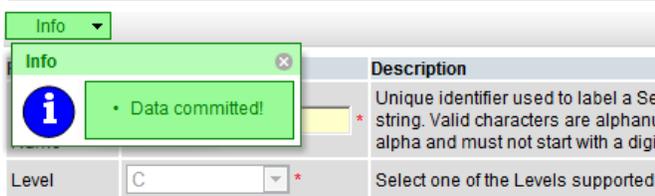
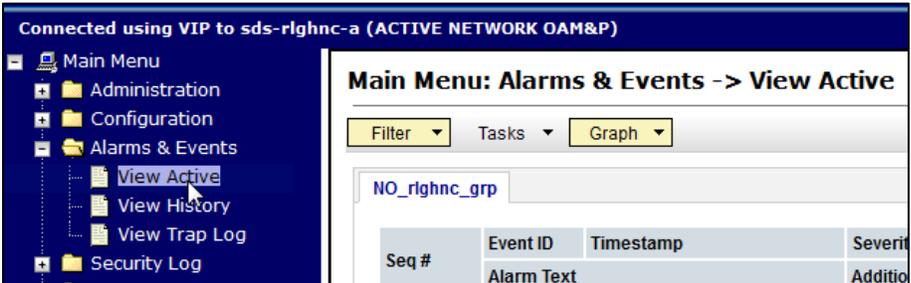
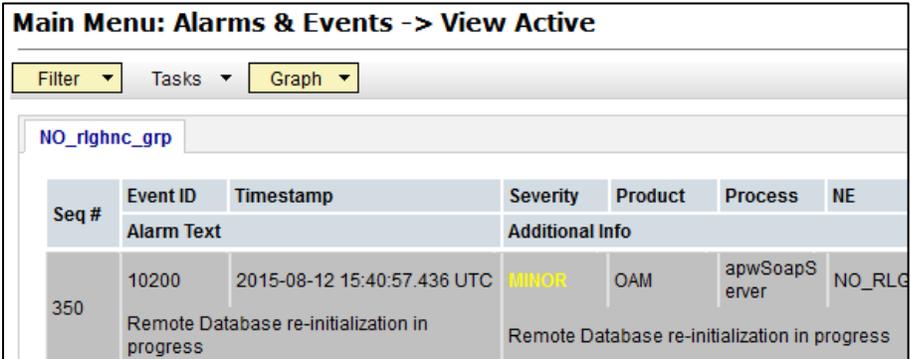
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																				
<p>76.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	 <p>Main Menu: Configuration -> Server Groups [Insert]</p> <p>Info</p> <p>Info</p> <p>• Data committed!</p> <p>Description</p> <p>Unique identifier used to label a Server Group. 1-32-character string. Valid characters are alpha underscore. Must contain at least one alpha and digit.]</p>																				
<p>77.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Select... Main Menu → Configuration → Server Groups ...as shown on the right</p> <p>2) The user will be presented with the “Configuration → Server Groups” screen as shown on the right.</p>	 <p>Connected using VIP to dts3-sds-a (ACTIVE NETWORK OAM&P)</p> <p>Main Menu</p> <ul style="list-style-type: none"> Administration Configuration <ul style="list-style-type: none"> Network Elements Network Services Servers Server Groups Resource Domains Places Place Associations DSCP Alarms & Events Security Log Status & Manage Measurements Communication Agent SDS <p>Main Menu: Configuration -> Server Groups</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>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> <p>Insert Edit Delete Report</p>	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>Primary SDS VIP:</p> <p>1) Using the mouse, select the MP Server Group associated with the DP being installed.</p> <p>2) Select the “Edit” dialogue button from the bottom left corner of the screen.</p>	 <p>Main Menu: Configuration -> Server Groups</p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> </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> <p>Insert Edit Delete Report</p>	Server Group Name	Level	Parent	Function	Connection 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	Connection Count																		
dp_group	C	soam_group	SDS	1																		
noamp_group	A	NONE	SDS	1																		
soam_group	B	noamp_group	SDS	1																		

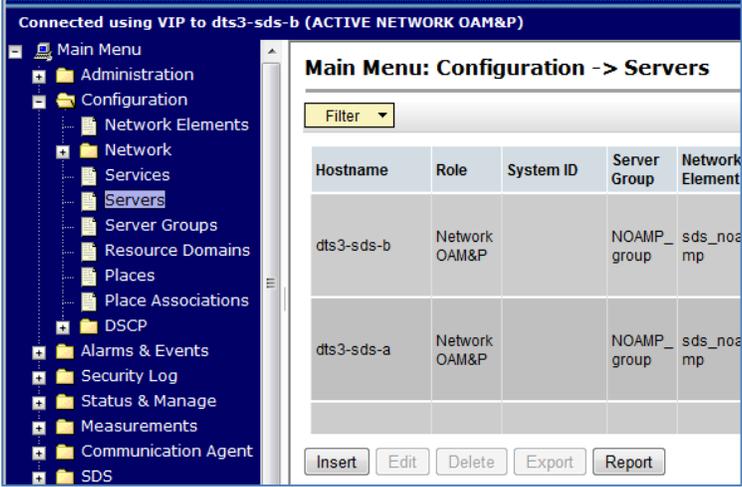
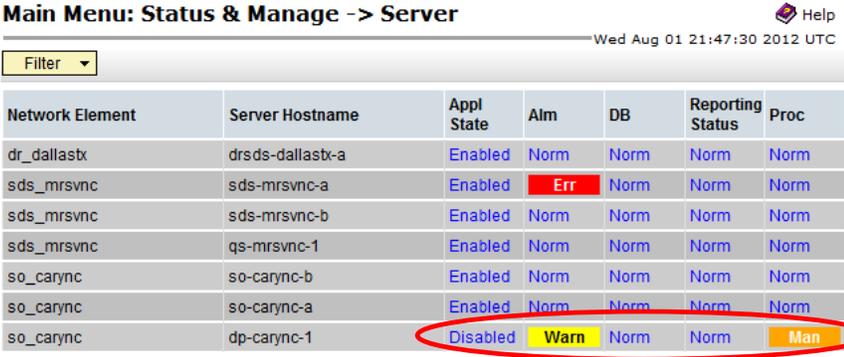
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result
<p>79.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user will be presented with the “Configuration → Server Groups [Edit]” screen as shown on the right</p>	
<p>80.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the “DP” server from the list of “Servers” by clicking the check box next its name.</p>	
<p>81.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>	

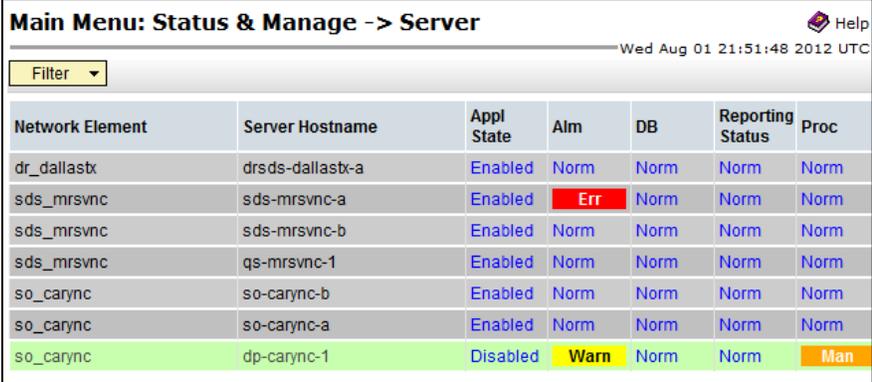
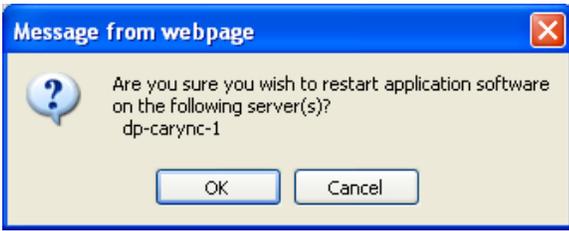
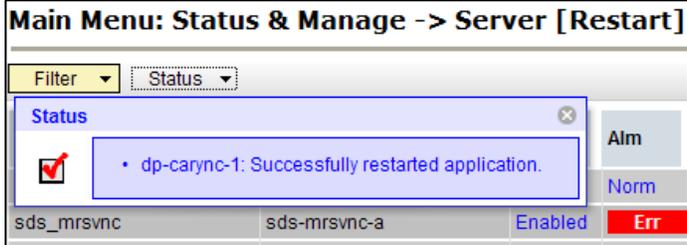
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																												
<p>82.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented with a banner information message stating “Data committed”.</p>	<p>Main Menu: Configuration -> Server Groups [Edit]</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"> Repeat Steps 68 - 82 of this procedure for each subtending DP server installed in the same SOAM enclosure, <i>using a unique group for each DP</i>. 																												
<p>84.</p> <p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Alarms & Events → View Active</p> <p>...as shown on the right.</p>																														
<p>85.</p> <p>Primary SDS VIP:</p> <p>Verify that Event ID 10200 (<i>Remote Database re-initialization in progress</i>) alarms are present with the DP Server hostnames in the “Instance” field..</p>		<p>Main Menu: Alarms & Events -> View Active</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>MONITOR THE EVENT ID 10200 (<i>Remote Database re-initialization in progress</i>) ALARMS.</p> <p>DO NOT PROCEED TO THE NEXT STEP UNTIL THE ALARM CLEAR IS RECEIVED FOR ALL DP SERVERS.</p> </div>																														

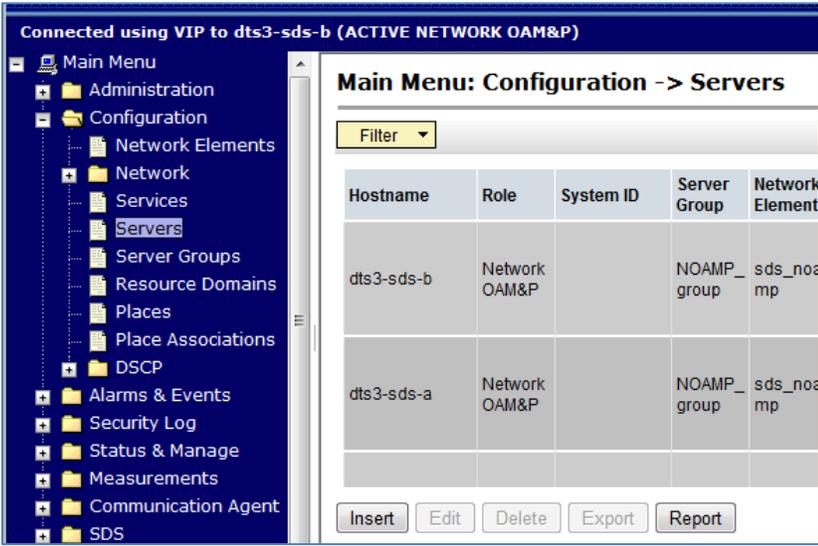
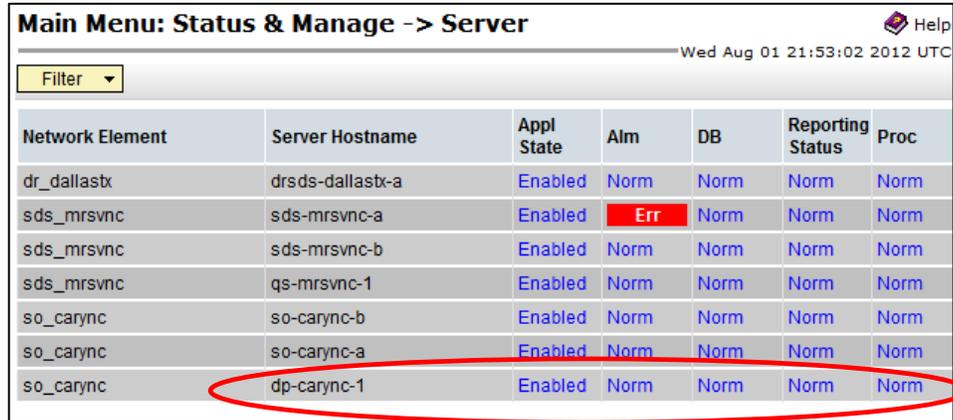
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																								
<p>86.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>																																																									
<p>87.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “DB & Reporting” status columns all show “Norm” for the DP at this point. The “Proc” column should show “Man”.</p>	 <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>	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
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																																																				

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

Step	Procedure	Result																																																												
<p>88.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>1) Using the mouse, select the “DP” hostname. The line entry should now be highlighted in GREEN.</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for the “DP” stating: “Successfully restarted application”.</p> <p>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</p>	 <p>Main Menu: Status & Manage -> Server</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>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>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>Main Menu: Status & Manage -> Server [Restart]</p> <p>Filter Status</p> <p>Status</p> <ul style="list-style-type: none"> dp-carync-1: Successfully restarted application. <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	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	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	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	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																																																											

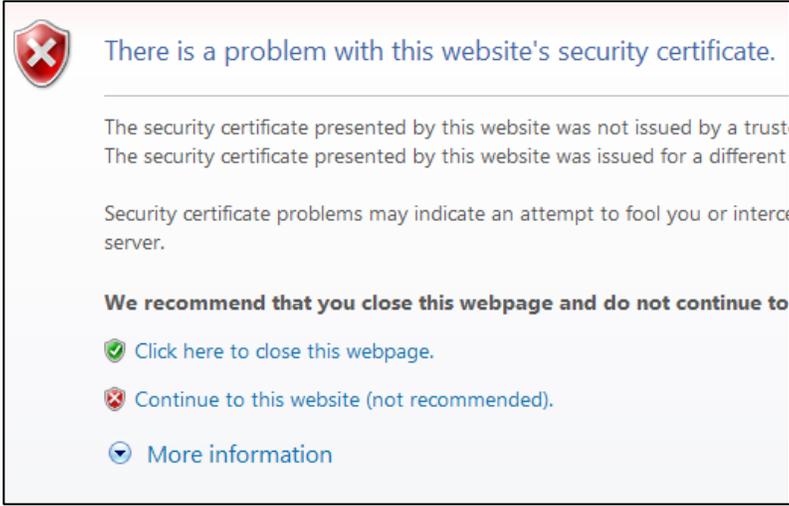
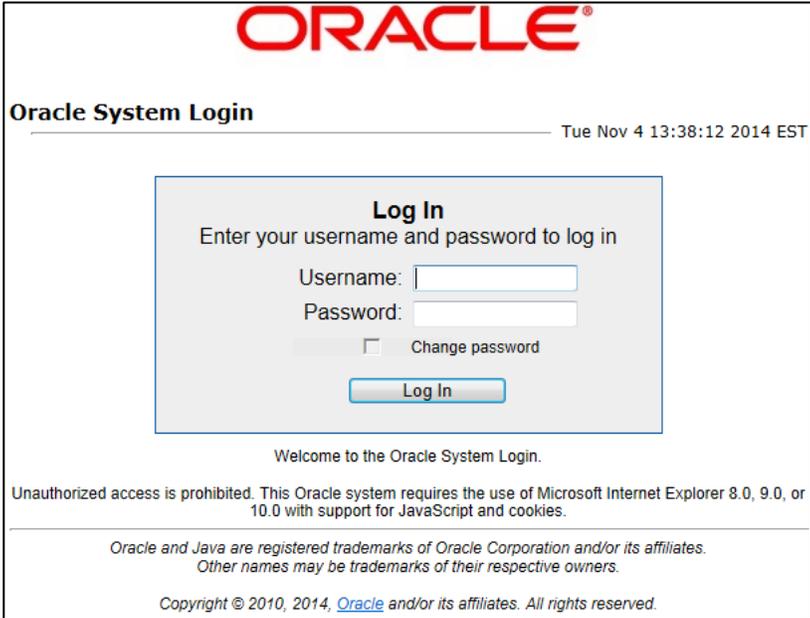
Procedure 10: Installing the Data Processor blade (All SOAM sites)

Step	Procedure	Result																																																								
<p>89.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu → Status & Manage → Server</p> <p>...as shown on the right.</p>	 <table border="1"> <thead> <tr> <th>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&P</td> <td></td> <td>NOAMP_group</td> <td>sds_noamp</td> </tr> <tr> <td>dts3-sds-a</td> <td>Network OAM&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>90.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Verify that the “Appl State” now shows “Enabled” and that the “Alm, DB, Reporting Status & Proc” status columns all show “Norm” for the “DP”.</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>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	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	Enabled	Norm	Norm	Norm	Norm
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	Enabled	Norm	Norm	Norm	Norm																																																				
<p>91.</p> <p><input type="checkbox"/></p>	<p>Repeat this procedure for each additional DP Server.</p>	<ul style="list-style-type: none"> Repeat Steps 86 - 90 of this procedure for each additional DP server installed in the SOAM cabinet. 																																																								
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>																																																										

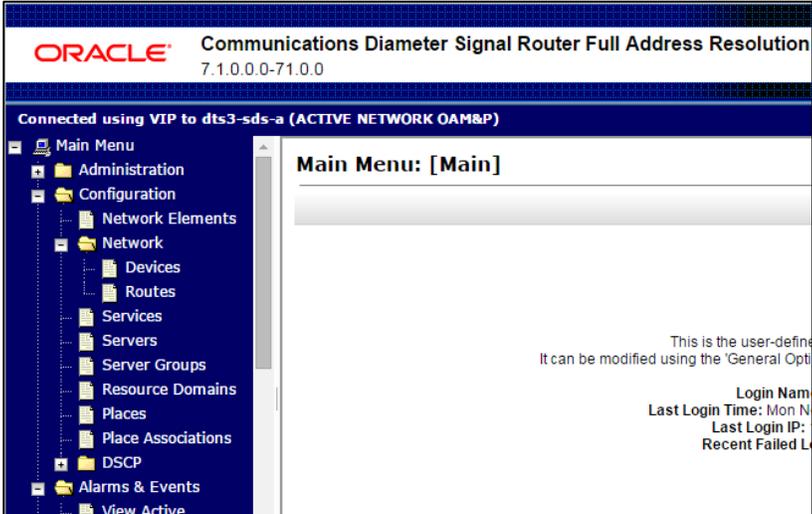
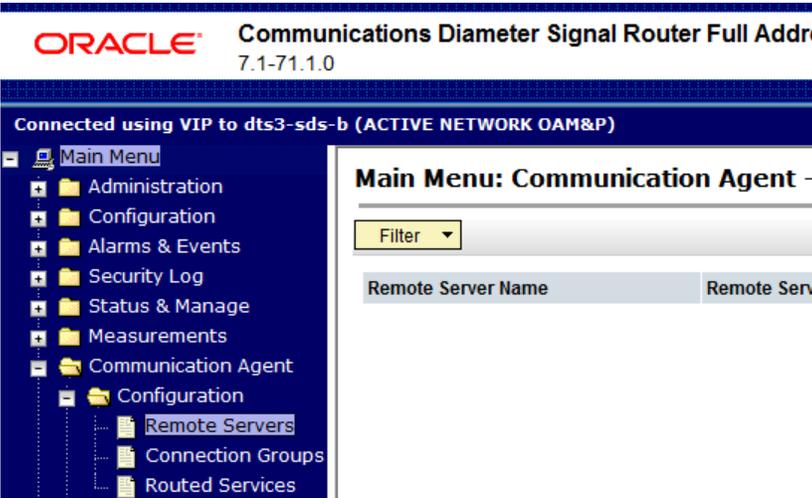
5.10 Configuring ComAgent

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

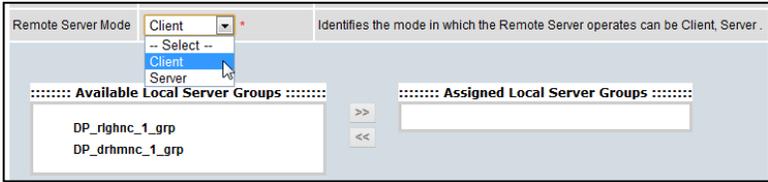
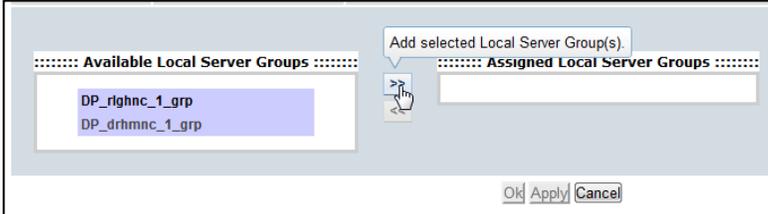
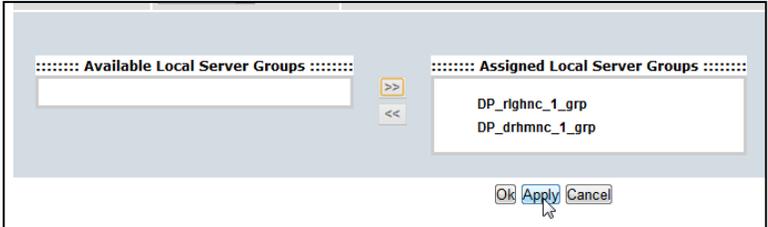
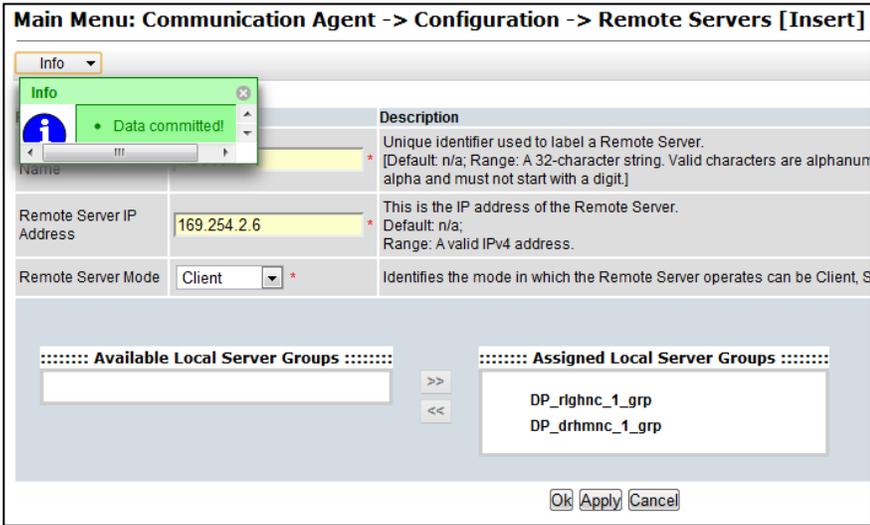
Procedure 11: Configuring comAgent (All SOAM sites)

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

Procedure 11: Configuring comAgent (All SOAM sites)

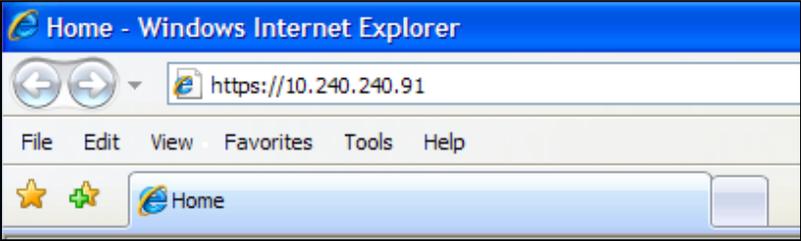
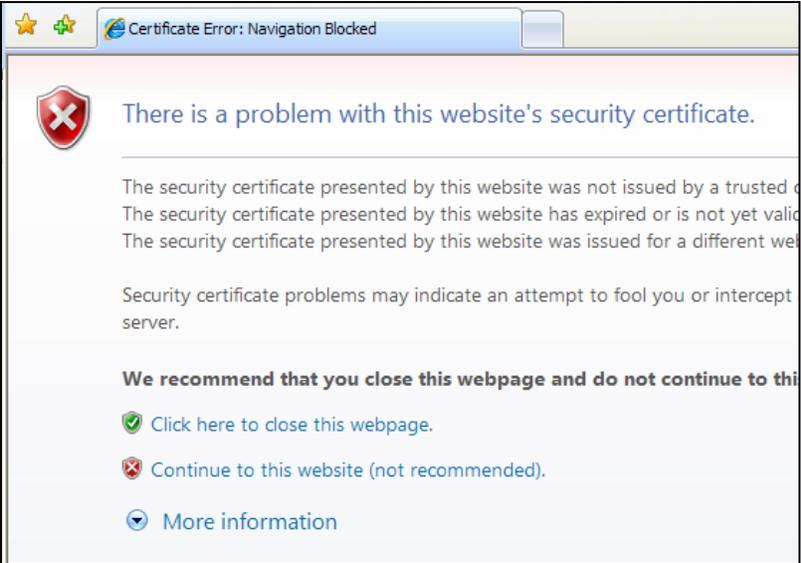
<p>3.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>							
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select...</p> <p>Main Menu</p> <ul style="list-style-type: none"> →Communication Agent →Configuration →Remote Servers <p>...as shown on the right.</p>							
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the "Insert" dialogue button</p>							
<p>6.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Enter the "Remote Server Name" for the DSR Message Processor server</p>	<table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Remote Server Name</td> <td>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>Primary SDS VIP:</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>NOTE: 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)

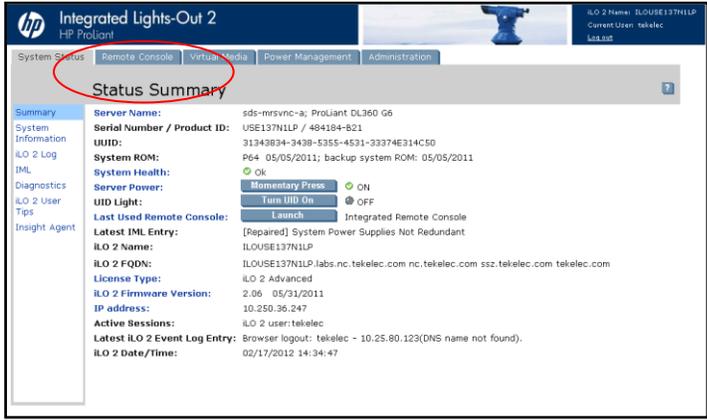
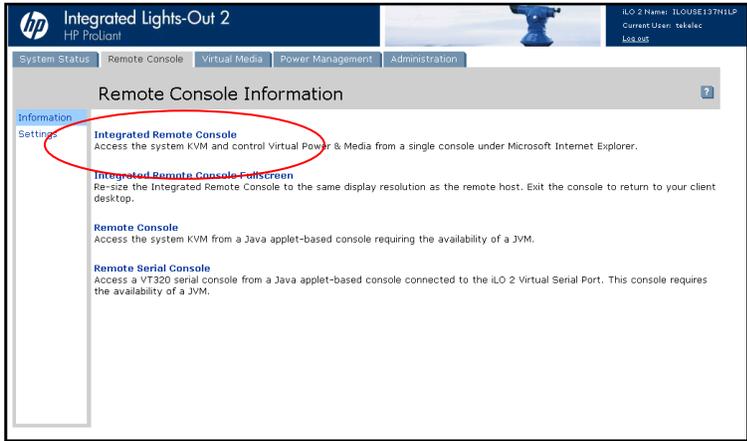
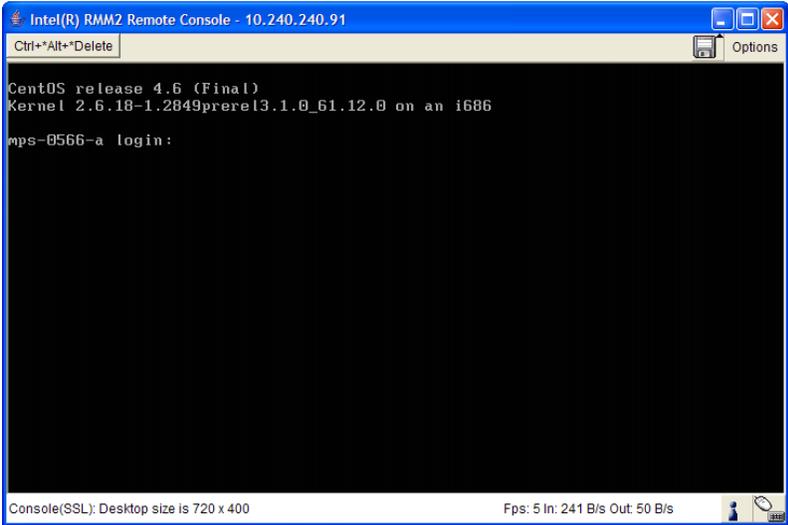
<p>8.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select “Client” for the Remote Server Mode from the pull-down menu.</p>	
<p>9.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Select the Local Server Group for the SDS Data Processor server group</p>	
<p>10.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Click the “Apply” dialogue button</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</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"> Repeat steps 5 - 11 of this procedure for each additional remote DA-MP in the associated DSR SOAM NE. 	
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

Appendix A. ACCESSING THE ILO VGA REDIRECTION WINDOW

Appendix A: Accessing the iLO VGA Redirection Window

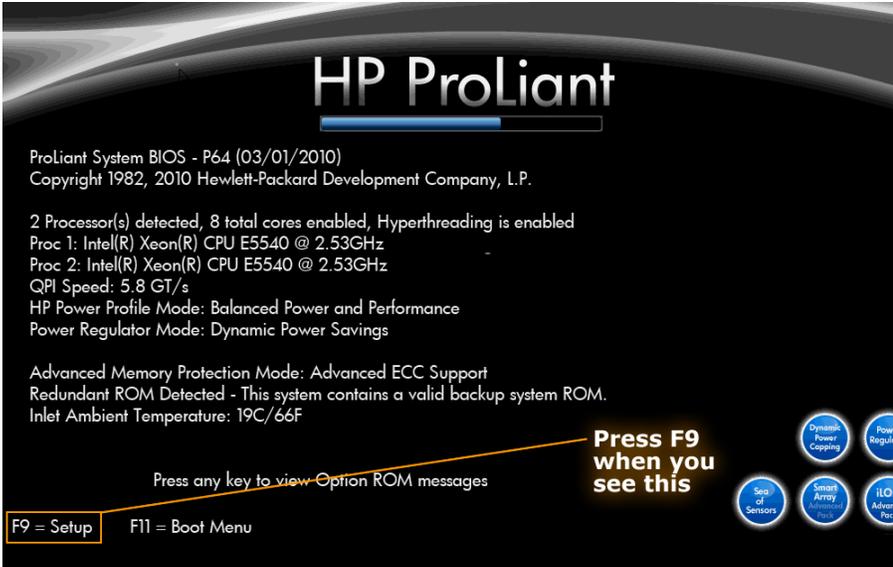
Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>Launch an approved web browser and connect to the iLO interface</p> <p>NOTE: Always use <i>https://</i> for iLO GUI access.</p>	
<p>2.</p> <input type="checkbox"/>	<p>The web browser will display a warning message regarding the Security Certificate.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

Appendix A: Accessing the iLO VGA Redirection Window

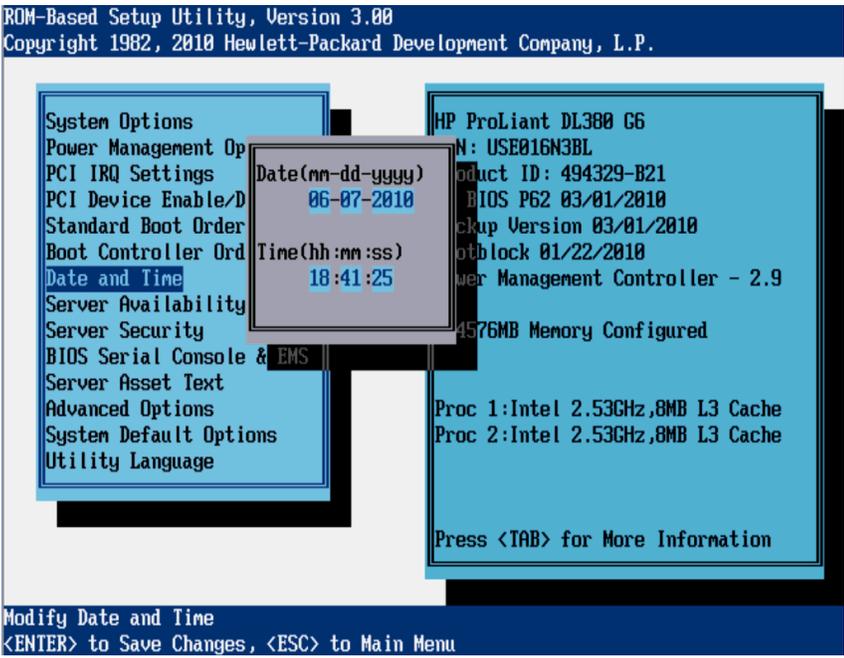
<p>4.</p> <p><input type="checkbox"/></p>	<p>The admin GUI is displayed.</p> <p>Select the “Remote Console” tab in the upper left corner of the GUI.</p>	
<p>5.</p> <p><input type="checkbox"/></p>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “Integrated Remote Console” option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

Appendix B. HP DL360 BIOS SETTINGS

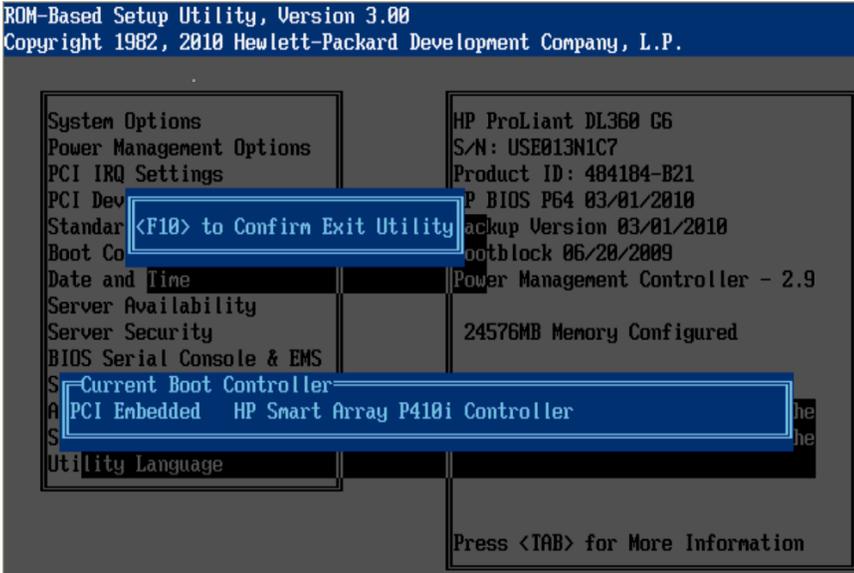
Appendix B: HP DL360 BIOS Settings

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 F9=Setup in the lower left corner of the screen, press [F9] to access the BIOS setup screen. You may be required to press [F9] 2-3 times. The F9=Setup will change to F9 Pressed once it is accepted. See example below.</p>  <p>Expected Result: ROM-Based Setup Utility is accessed and the ROM-Based Setup Utility menu will be displayed.</p>

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>Expected Result: Correct Time & 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 <ESC> 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>The Power Management Options on HP DL360 G6 rack mount servers used in SDM need to be configured for optimum SDM software performance.</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 <ESC> 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>Expected Result: Settings are saved and server reboots.</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</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

Step	In this procedure you will configure a temporary external IP Address for SDS Server A for the 1 st SDS site. The user will use this IP Address in a web browser to access the GUI to configure the first SDS server.	
<p>1.</p> <input type="checkbox"/>	<p>Log onto the SDS NOAM Server A ILO as indicated in Appendix A</p> <p>NOTE: <i>Output similar to that shown on the right will appear.</i></p>	<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: admusr Password: <admusr_password></pre>
<p>2.</p> <input type="checkbox"/>	<p>For Gen6&Gen8: Delete bond0</p> <p>For Gen9: Delete bond0</p>	<pre>\$ sudo netAdm delete --device=bond0 eth01 was successfully removed from bond0 eth11 was successfully removed from bond0 Interface bond0 removed For GEN9 \$ sudo netAdm delete --device=bond0 eth01 was successfully removed from bond0 eth02 was successfully removed from bond0 Interface bond0 removed</pre>
<p>3.</p> <input type="checkbox"/>	<p>Add XMI IP address to the first SDS server (SDS NOAM-A) and have it use interface eth02 for Gen6/Gen8 and eth03 for Gen9</p>	<pre>For Gen6&Gen8: \$ sudo netAdm set --device=eth02 --onboot=yes --netmask=255.255.255.0 --address=<XMI_IP_Address_for_SDS_A> Interface eth02 updated For Gen9: \$ sudo netAdm set --device=eth03 --onboot=yes --netmask=255.255.255.0 --address=<XMI_IP_Address_for_SDS_A> Interface eth03 updated</pre>

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

<p>4. <input type="checkbox"/></p>	<p>Add route to the default gateway for the first SDS site</p>	<p>For Gen6&Gen8: <pre>\$ sudo netAdm add --device=eth02 --route=default --gateway=<XMI_IP_Address_for_default_gateway></pre> Route to eth02 added For Gen9: <pre>\$ sudo netAdm add --device=eth03 --route=default --gateway=<XMI_IP_Address_for_default_gateway></pre> Route to eth03 added</p>
<p>5. <input type="checkbox"/></p>	<p>Wait a few minutes and then ping the default gateway to ensure connectivity.</p>	<pre>\$ ping <XMI_IP_Address_for_default_gateway></pre>
<p>6. <input type="checkbox"/></p>	<p>Log off the ILO</p>	<pre>\$ exit</pre>
<p>7. <input type="checkbox"/></p>	<p>Important NOTE: This interface must be un-configured</p>	<p>NOTE: If this method is used, then the For Gen6&Gen8 eth02 (Or eth03 for Gen9) 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>”:</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

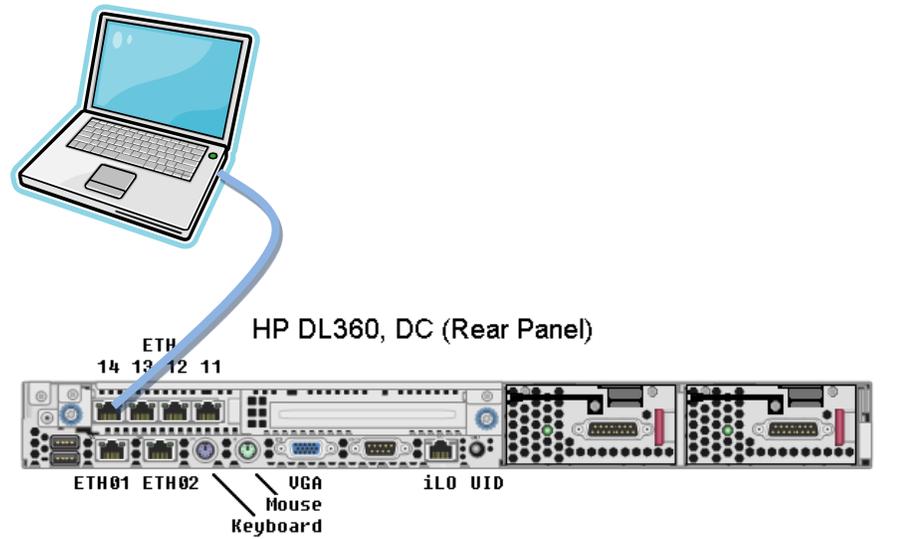
Appendix D. ESTABLISHING A LOCAL CONNECTION FOR ACCESSING THE SDS GUI

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

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 NOAM A for the 1 st SDS site. The user will use this IP Address in a web browser to access the GUI to configure the first SDS server.	
1. <input type="checkbox"/>	Access the SDS NOAM-A server's console.	Connect to the SDS NOAM-A server's console using one of the access methods described in Section 2.3 .
2. <input type="checkbox"/>	1) Access the command prompt. 2) Log into the SDS NOAM-A server as the "admusr" user.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64 hostname1260476221 login: admusr Password: <admusr_password>
3. <input type="checkbox"/>	This step, DL360 G6 DL380 Gen8 only! Configure static IP 192.168.100.11 on the eth14 port of the SDS NOAM-A server.	\$ sudo netAdm set --device=eth14 --address=192.168.100.11 --netmask=255.255.255.0 --onboot=yes
4. <input type="checkbox"/>	This step, DL380 Gen9 only! Configure static IP 192.168.100.11 on the eth08 port of the SDS NOAM-A server.	\$ sudo netAdm set --device=eth08 --address=192.168.100.11 --netmask=255.255.255.0 --onboot=yes

Appendix D: Establishing a Local Connection for Accessing SDS GUI

<p>5.</p> <input type="checkbox"/>	<p>Execute this step for HP DL360 G6:</p> <p>1) Plug in one end of the Ethernet cable (straight-thru) into the back of SDS NOAM-A server ETH14 (top left port).</p> <p>2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.</p>	 <p>HP DL360, DC (Rear Panel)</p> <p>ETH 14 13 12 11</p> <p>ETH01 ETH02 UGA Mouse Keyboard iLO UID</p>
------------------------------------	--	--

Appendix D: Establishing a Local Connection for Accessing SDS GUI

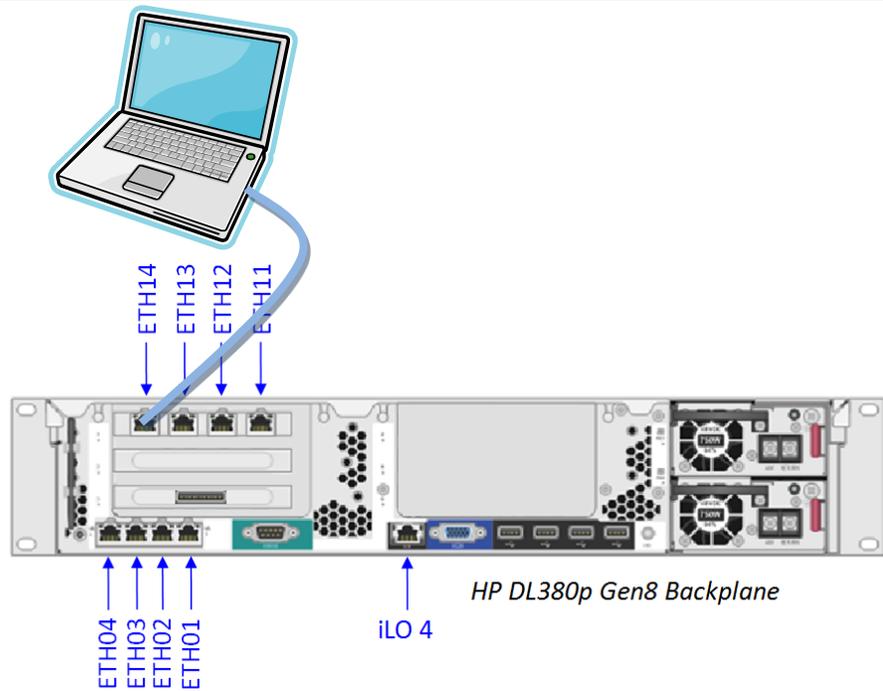
6.



Execute this step for HP DL380 Gen8:

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

2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.



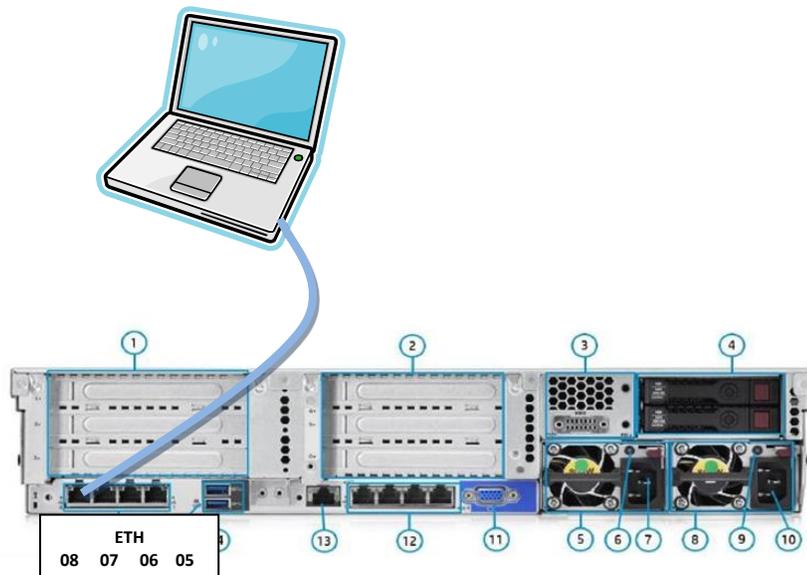
HP DL380 (Gen9), DC (Rear Panel):



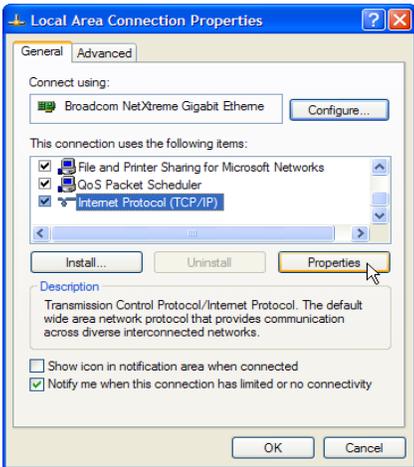
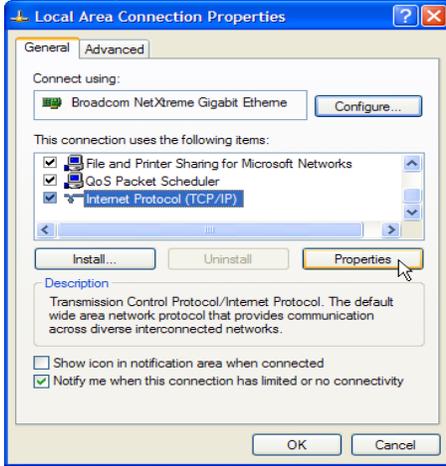
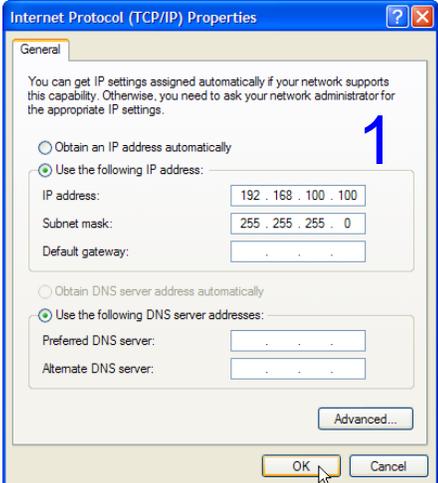
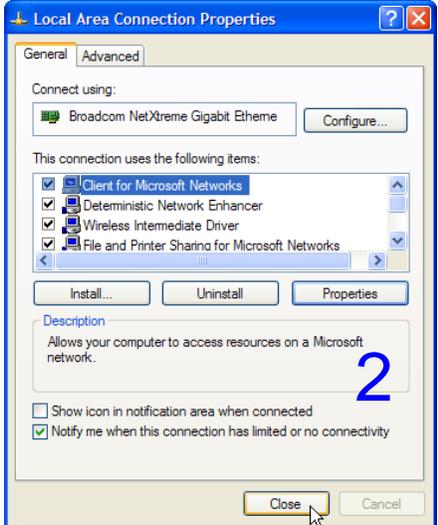
Execute this step For HP DL380 Gen9:

1) Plug in one end of the Ethernet cable (straight-thru) into the back of SDS NOAM-A server ETH08 (bottom left port).

2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.



Appendix D: Establishing a Local Connection for Accessing SDS GUI

<p>7.</p> <p><input type="checkbox"/></p>	<p>Access the laptop network interface card's TCP/IP "Properties" screen.</p> <p>NOTE: For this step follow the instruction specific to the laptop's OS (XP, Vista or Win 7).</p>	<p>Windows XP</p> <ul style="list-style-type: none"> Go to Control Panel Double-click on Network Connections Right-click the wired Ethernet Interface icon and select "Properties" <p>Select "Internet Protocol (TCP/IP)" and select "Properties"</p> 	<p>Windows Vista / Win 7</p> <ul style="list-style-type: none"> Go to Control Panel. Double-click on Network and Sharing Center Select Manage Network Connections (left menu) Right-click the wired Ethernet Interface icon and select "Properties" <p>Select "Internet Protocol Version 4 (TCP/IPv4)"</p> 
<p>8.</p> <p><input type="checkbox"/></p>	<p>1) Set the IP address and netmask of the laptop's network interface card to an IP address within the same network subnet as the statically assigned IP address used in Step 3 of this procedure (192.168.100.100 is suggested) and click "OK".</p> <p>2) Click "Close" from the network interface card's main "Properties" screen.</p>		
<p>THIS PROCEDURE HAS BEEN COMPLETED</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

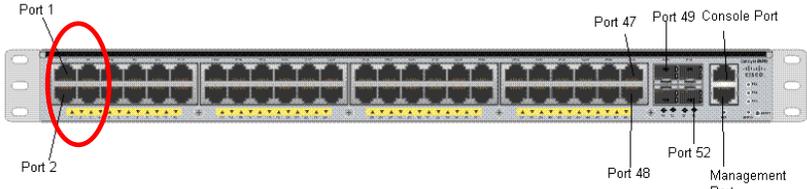
These switch configuration procedures require that the SDS hardware (servers and switches) are installed in a frame as indicated in the below picture:

DL360 Gen6			DL380 Gen8/Gen9		
U	SDS - DC - Seismic		U	SDS - DC - Seismic	
44	PDP-A	PWR	44	PDP-A	PWR
43			43		
42			42		
41			41		
40	FILLER PANEL		40	FILLER PANEL	
39	FILLER PANEL		39	FILLER PANEL	
38	FILLER PANEL		38	FILLER PANEL	
37	FILLER PANEL		37	FILLER PANEL	
36	FILLER PANEL		36	FILLER PANEL	
35	FILLER PANEL		35	FILLER PANEL	
34	FILLER PANEL		34	FILLER PANEL	
33	FILLER PANEL		33	FILLER PANEL	
32	FILLER PANEL		32	FILLER PANEL	
31	SWITCH B (Cisco 4948E-F)	SW	31	SWITCH B (Cisco 4948E-F)	SW
30	FILLER PANEL		30	FILLER PANEL	
29	SWITCH A (Cisco 4948E-F)		29	SWITCH A (Cisco 4948E-F)	
28	FILLER PANEL		28	FILLER PANEL	
27	FILLER PANEL		27	FILLER PANEL	
26	FILLER PANEL		26	FILLER PANEL	
25	FILLER PANEL		25	FILLER PANEL	
24	FILLER PANEL		24	FILLER PANEL	
23	FILLER PANEL		23	FILLER PANEL	
22	FILLER PANEL		22	FILLER PANEL	
21	FILLER PANEL		21	FILLER PANEL	
20	FILLER PANEL		20	FILLER PANEL	
19	FILLER PANEL		19	FILLER PANEL	
18	FILLER PANEL		18	FILLER PANEL	
17	FILLER PANEL		17	FILLER PANEL	
16	FILLER PANEL		16	FILLER PANEL	
15	FILLER PANEL		15	FILLER PANEL	
14	FILLER PANEL		14	FILLER PANEL	
13	FILLER PANEL		13	FILLER PANEL	
12	FILLER PANEL		12	FILLER PANEL	
11	FILLER PANEL		11	FILLER PANEL	
10	FILLER PANEL		10	FILLER PANEL	
9	FILLER PANEL		9	SERVER C - QUERY (HP DL380 Gen8/Gen9)	Servers
8	FILLER PANEL		8	SERVER B - SDS NOAM (HP DL380 Gen8/Gen9)	
7	FILLER PANEL		7	SERVER A - SDS NOAM (HP DL380 Gen8/Gen9)	
6	SERVER C - QUERY (HP DL360 Gen6)	Servers	6		
5	SERVER B - SDS NOAM (HP DL360 Gen6)		5		
4	SERVER A - SDS NOAM (HP DL360 Gen6)		4		
3	FILLER PANEL		3	FILLER PANEL	
2	FILLER PANEL		2	FILLER PANEL	
1	FILLER PANEL		1	FILLER PANEL	

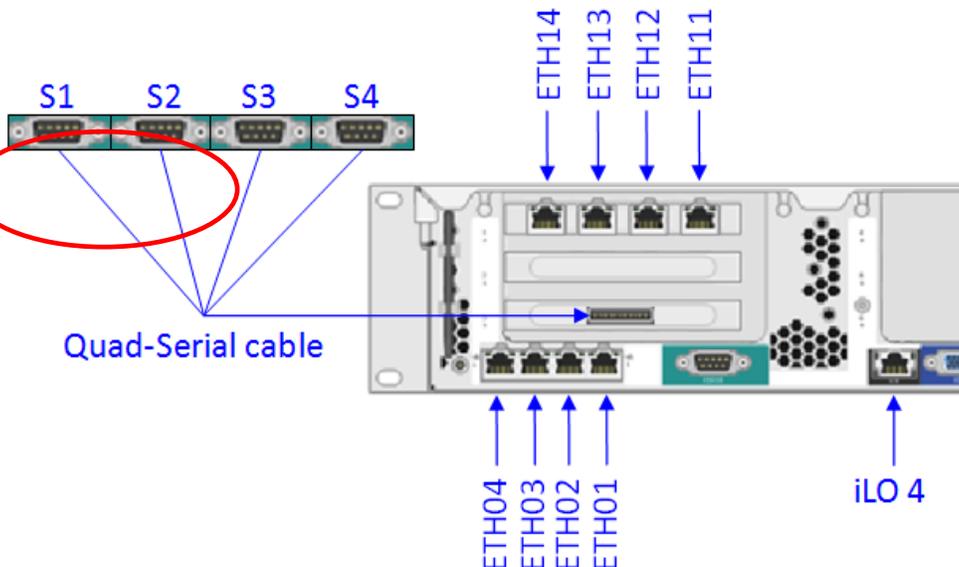
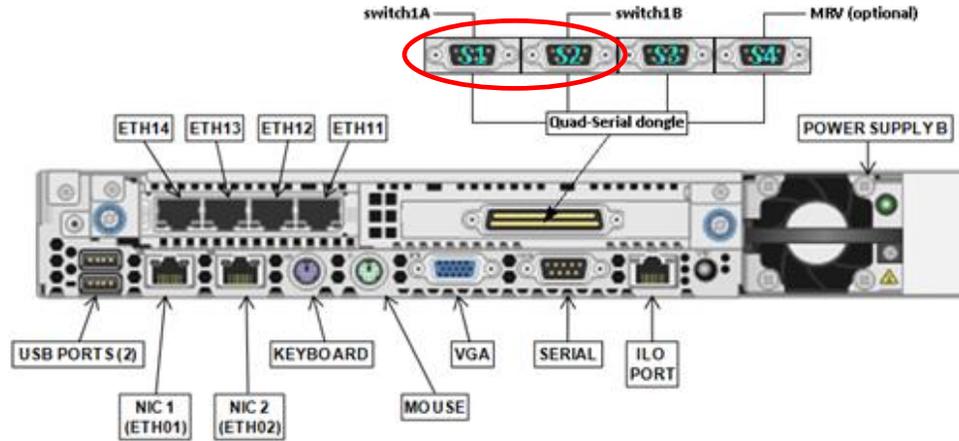
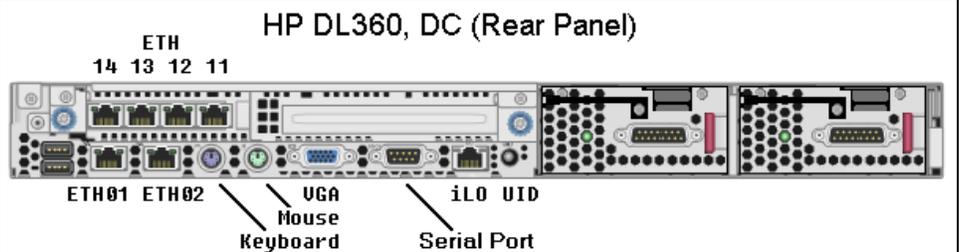
Figure 11- SDS Frame Layout

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

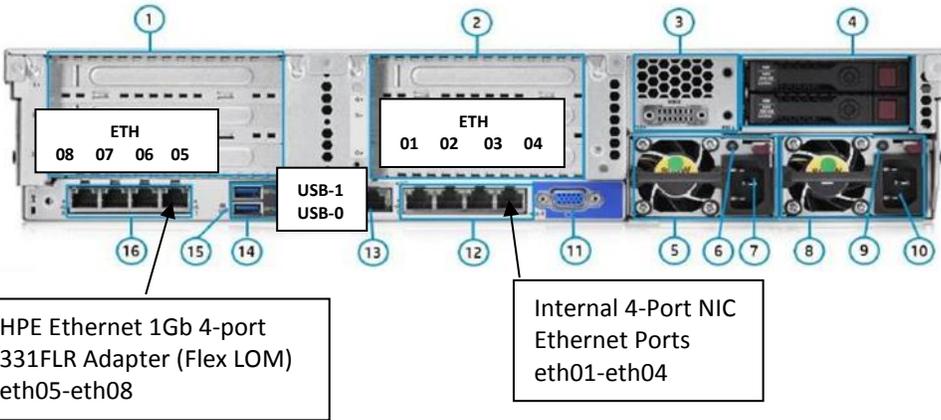
Appendix E.1: Verifying Cisco Switch Wiring (SDS sites)

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 CONNECTED.</p> <p>2) Verify that the ISL switch1A, Port 2 to switch1B, Port 2 is CONNECTED.</p> <p>3) Verify that the ISL switch1A, Port 3 to switch1B, Port 3 is CONNECTED.</p> <p>4) Verify that the ISL switch1A, Port 4 to switch1B, Port 4 is CONNECTED.</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; align-items: center; margin-bottom: 20px;"> <div style="text-align: center; margin-right: 10px;"> <p>1B</p> <p>switch1B (Top)</p> </div>  </div> <div style="display: flex; align-items: center;"> <div style="text-align: center; margin-right: 10px;"> <p>1A</p> <p>switch1A (Bottom)</p> </div>  </div> </div> <p>Figure 12 - Cisco 4948E-F Switch ISL Connections</p>
<p>2.</p>	<p>Verify that SERVER A has the Quad-Serial card interface ports connected to the Console Port each switch port.</p>	 <p>Figure 13 - Cisco 4948E-F Switch (Console Port)</p>

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

Step	Procedure	Result
<p><input type="checkbox"/></p> <p>1) Verify that the switch1A, Console Port is CONNECTED to SERVER A, Quad-Serial Port S1 using Cable 830-1229-xx.</p> <p><input type="checkbox"/></p> <p>2) Verify that the switch1B, Console Port is CONNECTED to SERVER A, Quad-Serial Port S2 using Cable 830-1229-xx.</p>		 <p>Figure 14 - HP DL380 Gen8, Rear Panel (Quad-Serial Ports)</p>
<p>3.</p> <p>This step, DL360 G6 DL380 Gen8 only!</p> <p><input type="checkbox"/></p> <p>1) Verify that switch1A, Port 5 is CONNECTED to SERVER A, ETH01.</p> <p>2) Verify that</p>		 <p>Figure 15 - HP DL360 G6, Rear Panel (Quad-Serial Ports)</p>
		 <p>Figure 7 - HP DL360 G6, Rear Panel (Ethernet)</p>

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

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

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)	Serial Port (DL380 Gen9)
<switch1A_serial_port>	SERVER A	ttyS4	ttyUSB0
<switch1B_serial_port>	SERVER A	ttyS5	ttyUSB1
Variable	Cisco WS-C4948E-F		

<IOS_image_file>	Fill in the appropriate value from [7]: _____
Variable	Value
<switch_platform_username>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<switch_platform_password>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<switch_console_password>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<switch_enable_password>	Contact Oracle's Customer Support Accessing My Oracle Support (MOS).
<SERVER A_mgmtVLAN_ip_address >	Primary SDS: 169.254.1.11 DR SDS: 169.254.1.14
<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) [2][11]	_____
<management_SERVER B_iLO_ip> (See Site Survey) [2][11]	_____

Ethernet Interface	DL360 G6 / DL380 Gen8 /	DL380 Gen9
<ethernet_interface_1>	bond0.2 (eth01, eth11)	bond0.2 (eth01, eth02)
<ethernet_interface_2>	bond0.4 (eth01, eth11)	bond0.4 (eth01, eth02)

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

Note: 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 [6]
- 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
<p>6.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>For Gen6 & Gen8:</p> <p>Setup conserver serial console access for switch1A</p>	<pre> \$ conserverSetup -i -s <SERVER_A_mgmtVLAN_ip_address> Example: \$ conserverSetup -i -s 169.254.1.11 Enter your platcfg username, followed by [ENTER]:platcfg Enter your platcfg password, followed by [ENTER]: Target address is local to this host. Running conserverSetup in local mode. Checking Platform Revision for local TPD installation... The local machine is running: Product Name: SDS Base Distro Release: 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]: switch1A_console Enter the serial device designation for switch1A_console (default: "ttyUSB0"), followed by [ENTER]:ttyS4 Configure additional serial consoles [Y/n]? [press ENTER for default <Y>]:n Configuring switch 'switch1A_console' console server...Configured. Configuring console repository service.....Configured. Remote host has the following available interfaces: bond0 bond0.4 bond1 eth01 eth02 eth11 eth12 Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]: ...No entry provided for bond. Resorting to default. Slave interfaces for bond0: bond0 interface: eth01 bond0 interface: eth11 </pre>

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

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

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

Step	Procedure	Result
8.	<p>SERVER A:</p> <p>Note: For DL380 GEN6 & GEN8:</p> <p>Setup conserver serial console access for switch1B.</p> <p>NOTE: Since Platform 6.0, the switch1A & 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 <SERVER_A_mgmtVLAN_ip_address></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 <Y>]:n Configuring switch 'switch1B_console' console server...Configured. Configuring iptables for port(s) 782...Configured. Configuring iptables for port(s) 1024:65535...Configured. Configuring console repository service... Repo entry for "console_service" already exists; deleting entry for: Service Name: console_service Type: conserver Host: 169.254.1.11 ...Configured. Remote host has the following available interfaces: bond0 bond0.2 bond0.4 bond1 eth01 eth02 eth11 eth12 eth13 eth14 Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]: ...No entry provided for bond. Resorting to default. Slave interfaces for bond0: bond0 interface: eth01 bond0 interface: eth11 </p>

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

Step	Procedure	Result
<p>9.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>Note : For DL380 Gen9</p> <p>Setup conserver serial console access for switch1B.</p> <p>NOTE: Since Platform 6.0, the switch1A & 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 -u <SERVER_A_mgmtVLAN_ip_address> Example: \$ conserverSetup -i -u 169.254.1.11 Enter your platcfg username, followed by [ENTER]:platcfg Enter your platcfg password, followed by [ENTER]: Checking Platform Revision for local TPD installation... The local machine is running: Product Name: SDS Base Distro Release: 7.0.0.0.0_86.14.0 Checking Platform Revision for remote TPD installation... The remote machine is running: Product Name: SDS Base Distro Release: 7.0.0.0.0_86.14.0 Enter the switch name for this console connection (default: "switch1A_console"), followed by [ENTER]:switch1B_console Enter the serial device designation for switch1B_console (default: "ttyUSB0"), followed by [ENTER]:ttyUSB1 Configure additional serial consoles [Y/n]? [press ENTER for default <Y>]:n Configuring switch 'switch1B_console' console server...Configured. Configuring iptables for port(s) 782...Configured. Configuring iptables for port(s) 1024:65535...Configured. Configuring console repository service... Repo entry for "console_service" already exists; deleting entry for: Service Name: console_service Type: conserver Host: 169.254.1.11 ...Configured. Remote host has the following available interfaces: bond0 bond0.2 bond0.4 bond1 eth01 eth02 eth11 eth12 eth13 eth14 Enter the name of the bond on the remote server(default: "bond0"), followed by [ENTER]: ...No entry provided for bond. Resorting to default. Slave interfaces for bond0: bond0 interface: eth01 bond0 interface: eth02 </pre>

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

Step	Procedure	Result
<p>10.</p> <input type="checkbox"/>	<p>SERVER A: Add a repository for SSH service</p>	<pre>\$ netConfig --repo addService name=ssh_service Service type? (tftp, ssh, conserver, oa) ssh Service host? 169.254.1.11 Enter an option name <q to cancel>: user Enter the value for user: admusr Enter an option name <q to cancel>: password Enter the value for password: <user_password> Verify password: <user_password> Enter an option name <q to cancel>: q Add service for ssh_service successful</pre>
<p>11.</p> <input type="checkbox"/>	<p>SERVER A: Verify you have entered the information correctly for SSH service</p>	<pre>\$ netConfig --repo showService name=ssh_service Service Name: ssh_service Type: ssh Host: 169.254.1.11 Options: password: 615EBD88232A2EFD0080AC990393083D user: admusr</pre>
<p>12.</p> <input type="checkbox"/>	<p>SERVER A: Add a repository for TFTP service</p>	<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>
<p>13.</p> <input type="checkbox"/>	<p>SERVER A: Verify that you have entered the information correctly for TFTP service</p>	<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>1.</p> <input type="checkbox"/>	<p>SERVER A: 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: <platcfg_password> Verify password: <platcfg_password> Enter an option name(q to cancel): q Add service for switch1A_consvc successful</pre>
<p>2.</p> <input type="checkbox"/>	<p>SERVER A: 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>3.</p> <input type="checkbox"/>	<p>SERVER A: 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: <platcfg_password> Verify password: <platcfg_password> Enter an option name(q to cancel): q Add service for console_service successful</pre>
<p>4.</p> <input type="checkbox"/>	<p>SERVER A: 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>5.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>Verify and remove the service named "console_service" if present</p>	<pre>\$ netConfig --repo showService name=console_service</pre> <p>Services:</p> <pre> Service Name: console_service Type: conserver Host: 169.254.1.11 Options: password: 0B902ECD13D5BD2F1B57B5BFC6E95FE9 user: platcfg</pre> <p>If service named "console_service" is present, then remove it. Otherwise skip to the next step.</p> <pre>\$ netConfig --repo deleteService name=console_service</pre> <p>Are you sure you want to delete console_service (y/n)? y</p> <p>Deleting service console_service...</p>

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

Step	Procedure	Result
<p>6.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>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
<p>7.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Add repository for switch1B</p>	<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>8.</p> <input type="checkbox"/>	<p>SERVER A:</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>9.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Log in to switch1A</p>	<p>Example:</p> <pre>console -M <SERVER_A_mgmtVLAN_ip_address> -l platcfg switch1A_console \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1A_console Enter platcfg@pmac5000101's password: <platcfg_password> [Enter `^Ec?' for help] Press <Enter></pre>
<p>14.</p> <input type="checkbox"/>	<p>switch1A:</p> <p>Note the image version for comparison in a following step.</p>	<pre>Switch> show version include image System image file is "bootflash:cat4500e-entservicesk9-mz.122-54.XO.bin"</pre> <p>Note the image version for comparison in a following step.</p>



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

- 1) **Appendix 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 33.**

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
15. <input type="checkbox"/>	Switch1A: Execute "show bootflash" to verify that only the correct bootflash is present.	Switch> show bootflash <pre> -#- --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) </pre> Note the image version for comparison in a following step
16. <input type="checkbox"/>	Switch1A: Reset switch back to factory defaults by deleting the VLANs.	Switch> en Password: Switch# write erase Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] <ENTER> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram <ENTER> Switch# config t Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# no vlan 2-1024 %Default VLAN 1002 may not be deleted. %Default VLAN 1003 may not be deleted. %Default VLAN 1004 may not be deleted. %Default VLAN 1005 may not be deleted. Switch(config)# config-register 0x2101 Switch(config)# end Switch# *Jan 26 12:53:31.675: %SYS-5-CONFIG_I: Configured from console by console Switch#
17. <input type="checkbox"/>	Switch1A: Reload the switch.	Switch# reload System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] <ENTER>

Step	Procedure	Result
<p>18.</p> <input type="checkbox"/>	<p>Switch1A:</p> <p>Monitor the switch reboot until it returns to a login prompt.</p>	<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! <ENTER> Switch></pre>
<p>19.</p> <input type="checkbox"/>	<p>Switch1A:</p> <p>Enter "enable" mode.</p>	<pre>Switch#enable Switch#</pre>
<p>20.</p> <input type="checkbox"/>	<p>Switch1A:</p> <p>Verify that you see the correct IOS version listed in the bootflash.</p>	<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>
<p>21.</p> <input type="checkbox"/>	<p>Switch1A:</p> <p>Close connection to switch.</p>	<pre>Switch#quit Switch con0 is now available Press RETURN to get started.</pre>
<p>22.</p> <input type="checkbox"/>	<p>switch1A:</p> <p>Note the image version for comparison in a following step.</p>	<p>Exit from console by typing CTRL+E+c+. (combination control character and 'e' character, followed by sequence 'c' character, then 'period' character) and you will be returned to the server prompt.</p>
<p>23.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Log in to switch1B</p>	<pre><i>Example:</i> console -M <SERVER A_mgmtVLAN_ip_address> -l platcfg switch1B_console \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1B_console Enter platcfg@pmac5000101's password: <platcfg_password> [Enter `^Ec?' for help] Press <Enter></pre>

Step	Procedure	Result
<p>24.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Note the image version for comparison in a following step.</p>	<pre>Switch> show version include image System image file is "bootflash:cat4500e-entservicesk9-mz.122-54.XO.bin"</pre> <p>Note the image version for comparison in a following step.</p>



IF THE 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
25. <input type="checkbox"/>	Switch1B: Execute "show bootflash" to verify that only the correct bootflash is present.	Switch> show bootflash -#- --length-- -----date/time----- path 1 25771102 Nov 29 2011 09:04:04 cat4500e-entservicesk9-mz.122-54.XO.bin 95072256 bytes available (33210368 bytes used) Note the image version for comparison in a following step
26. <input type="checkbox"/>	Switch1B: Reset switch back to factory defaults by deleting the VLANs.	Switch> en Password: Switch# write erase Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] <ENTER> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram <ENTER> Switch# config t Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# no vlan 2-1024 %Default VLAN 1002 may not be deleted. %Default VLAN 1003 may not be deleted. %Default VLAN 1004 may not be deleted. %Default VLAN 1005 may not be deleted. Switch(config)# config-register 0x2101 Switch(config)# end Switch# *Jan 26 12:53:31.675: %SYS-5-CONFIG_I: Configured from console by console Switch#
27. <input type="checkbox"/>	Switch1B: Reload the switch.	Switch# reload System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] <ENTER>

Step	Procedure	Result
<p>28.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Monitor the switch reboot until it returns to a login prompt.</p>	<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! <ENTER> Switch></pre>
<p>29.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Enter "enable" mode.</p>	<pre>Switch#enable Switch#</pre>
<p>30.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Verify that you see the correct IOS version listed in the bootflash.</p>	<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>
<p>31.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Close connection to switch.</p>	<pre>Switch#quit Switch con0 is now available Press RETURN to get started.</pre>
<p>32.</p> <input type="checkbox"/>	<p>Switch1B:</p> <p>Note the image version for comparison in a following step.</p>	<p>Exit from console by typing CTRL+E+c+. (combination control character and 'e' character, followed by sequence 'c' character, then 'period' character) and you will be returned to the server prompt.</p>

Step	Procedure	Result
<p>33.</p> <input type="checkbox"/>	<p>SERVER A: Initialize switch 1A</p>	<pre>\$ netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E_E-F_init.xml Processing file: /usr/TKLC/plat/etc/switch/xml/switch1A_SDS_4948E-F_init.xml \$</pre> <p>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>34.</p> <input type="checkbox"/>	<p>SERVER A: Initialize switch 1B</p>	<pre>\$ netConfig --file=/usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E_E-F_init.xml Processing file: /usr/TKLC/plat/etc/switch/xml/switch1B_SDS_4948E-F_init.xml \$</pre> <p>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>35.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Ping switch 1A's SVI (router interface) addresses to verify switch initialization.</p> <p>Note: VIP addresses are not yet available.</p>	<pre> \$ ping -c 15 169.254.1.1 PING 169.254.1.1 (169.254.1.1) 56(84) bytes of data. 64 bytes from 169.254.1.1: icmp_seq=1 ttl=255 time=3.09 ms 64 bytes from 169.254.1.1: icmp_seq=2 ttl=255 time=0.409 ms 64 bytes from 169.254.1.1: icmp_seq=3 ttl=255 time=0.417 ms 64 bytes from 169.254.1.1: icmp_seq=4 ttl=255 time=0.418 ms 64 bytes from 169.254.1.1: icmp_seq=5 ttl=255 time=0.419 ms 64 bytes from 169.254.1.1: icmp_seq=6 ttl=255 time=0.419 ms 64 bytes from 169.254.1.1: icmp_seq=7 ttl=255 time=0.429 ms 64 bytes from 169.254.1.1: icmp_seq=8 ttl=255 time=0.423 ms 64 bytes from 169.254.1.1: icmp_seq=9 ttl=255 time=0.381 ms 64 bytes from 169.254.1.1: icmp_seq=10 ttl=255 time=0.416 ms 64 bytes from 169.254.1.1: icmp_seq=11 ttl=255 time=0.381 ms 64 bytes from 169.254.1.1: icmp_seq=12 ttl=255 time=0.426 ms 64 bytes from 169.254.1.1: icmp_seq=13 ttl=255 time=0.420 ms 64 bytes from 169.254.1.1: icmp_seq=14 ttl=255 time=0.415 ms 64 bytes from 169.254.1.1: icmp_seq=15 ttl=255 time=0.419 ms --- 169.254.1.1 ping statistics --- 15 packets transmitted, 15 received, 0% packet loss, time 14006ms rtt min/avg/max/mdev = 0.381/0.592/3.097/0.669 ms \$ </pre>

Step	Procedure	Result
<p>36.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Ping switch 1B's SVI (router interface) addresses to verify switch initialization.</p> <p>Note: VIP addresses are not yet available.</p>	<pre> \$ ping -c 15 169.254.1.2 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 ! 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. </pre>

Step	Procedure	Result
<p>37.</p> <input type="checkbox"/>	<p>SERVER A: Configure both switches</p>	<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> <p>\$</p> <p>Note: This step takes about 2-3 minutes to complete.</p> <ul style="list-style-type: none"> • Check the output of this command for any errors. If this fails for any reason, stop this procedure and contact Customer Care Center. • A successful completion of netConfig will return the user to the prompt.
<p>38.</p> <input type="checkbox"/>	<p>SERVER A: Undo the temporary changes.</p>	<pre>\$ tpdProvd --client --noxml --ns=Xinetd stopXinetdService service tftp</pre> <p>Login on Remote: platcfg</p> <p>Password of platcfg: <platcfg_password></p> <p>1</p>
<p>39.</p> <input type="checkbox"/>	<p>SERVER A: Verify the switch is using the correct IOS image per platform version.</p>	<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>40.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>Execute the “service network restart” to restore SERVER A networking to original state.</p> <p>Output similar to that shown on the right may be observed.</p>	<pre> \$ 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
<p>41.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Ping switch 1A's SVI (router interface) addresses to verify switch configuration.</p> <p>Note: VIP addresses are not yet available.</p>	<pre> \$ ping -c 5 169.254.1.1 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>
<p>42.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Ping switch 1B's SVI (router interface) addresses to verify switch configuration.</p> <p>Note: VIP addresses are not yet available</p>	<pre> \$ ping -c 5 169.254.1.2 PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data. 64 bytes from 169.254.1.2: icmp_seq=1 ttl=255 time=0.401 ms 64 bytes from 169.254.1.2: icmp_seq=2 ttl=255 time=0.394 ms 64 bytes from 169.254.1.2: icmp_seq=3 ttl=255 time=0.407 ms 64 bytes from 169.254.1.2: icmp_seq=4 ttl=255 time=0.393 ms 64 bytes from 169.254.1.2: icmp_seq=5 ttl=255 time=0.401 ms --- 169.254.1.2 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.393/0.399/0.407/0.013 ms \$ </pre>

Step	Procedure	Result
<p>43.</p> <input type="checkbox"/>	<p>SERVER A:</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: <switch_platform_password></pre>
<p>44.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Close SSH connection to switch 1A.</p>	<pre>\$ quit Connection to 169.254.1.1 closed.</pre>
<p>45.</p> <input type="checkbox"/>	<p>SERVER A:</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: <switch_platform_password></pre>
<p>46.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Close SSH connection to switch 1A.</p>	<pre>\$ quit Connection to 169.254.1.2 closed.</pre>

Step	Procedure	Result
<p>47.</p> <input type="checkbox"/>	<p>SERVER B:</p> <p>Execute the “service network restart” 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>48.</p> <input type="checkbox"/>	<p>SERVER B:</p> <p>Ping switch 1A’s SVI (router interface) addresses to verify switch configuration.</p> <p>Note: VIP addresses are not yet available.</p>	<pre> \$ ping -c 5 169.254.1.1 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
<p>49.</p> <input type="checkbox"/>	<p>SERVER B:</p> <p>Ping switch 1B's SVI (router interface) addresses to verify switch configuration.</p> <p>Note: VIP addresses are not yet available</p>	<pre>\$ ping -c 5 169.254.1.2 PING 169.254.1.2 (169.254.1.2) 56(84) bytes of data. 64 bytes from 169.254.1.2: icmp_seq=1 ttl=255 time=0.401 ms 64 bytes from 169.254.1.2: icmp_seq=2 ttl=255 time=0.394 ms 64 bytes from 169.254.1.2: icmp_seq=3 ttl=255 time=0.407 ms 64 bytes from 169.254.1.2: icmp_seq=4 ttl=255 time=0.393 ms 64 bytes from 169.254.1.2: icmp_seq=5 ttl=255 time=0.401 ms --- 169.254.1.2 ping statistics --- 5 packets transmitted, 5 received, 0% packet loss, time 3999ms rtt min/avg/max/mdev = 0.393/0.399/0.407/0.013 ms</pre>
<p>50.</p> <input type="checkbox"/>	<p>SERVER B:</p> <p>Verify SSH capability from server 1B to switch 1A.</p>	<pre>\$ ssh platcfg@169.254.1.1 The authenticity of host '169.254.1.1 (169.254.1.1)' can't be established. RSA key fingerprint is fd:83:32:34:3f:06:2f:12:e0:ea:e2:73:e2:c1:1e:6e. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '169.254.1.1' (RSA) to the list of known hosts. Password: <switch_platform_password></pre>
<p>51.</p> <input type="checkbox"/>	<p>SERVER B:</p> <p>Close SSH connection to switch 1A.</p>	<pre>switch1A> quit Connection to 169.254.1.1 closed.</pre>
<p>52.</p> <input type="checkbox"/>	<p>SERVER B:</p> <p>Verify SSH capability from server 1B to switch 1B</p>	<pre>\$ ssh platcfg@169.254.1.2 The authenticity of host '169.254.1.2 (169.254.1.2)' can't be established. RSA key fingerprint is 3a:1b:e0:92:99:73:9d:04:92:3f:72:37:c0:1c:a6:95. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '169.254.1.2' (RSA) to the list of known hosts. Password: <switch_platform_password></pre>
<p>53.</p> <input type="checkbox"/>	<p>SERVER B:</p> <p>Close SSH connection to switch 1B.</p>	<pre>switch1B> quit Connection to 169.254.1.2 closed.</pre>
<p>54.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Run Appendix E.4 to backup switch configuration.</p>	

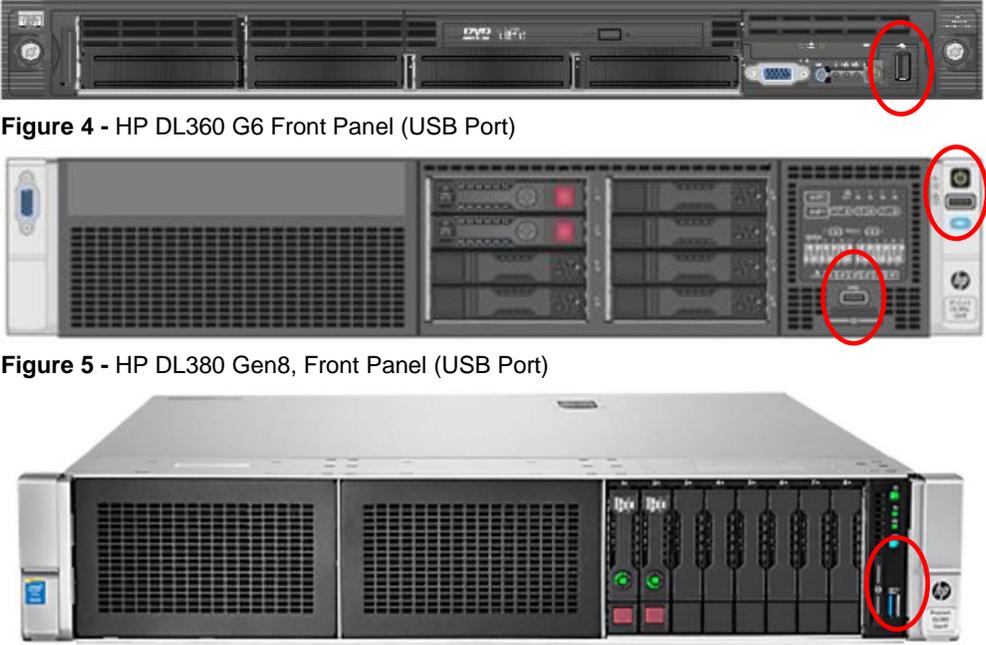
Step	Procedure	Result
<p>55.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Exit from the command line to return the server console to the login prompt.</p>	<pre>\$ exit logout CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64</pre>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

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>SERVER A: Access the SERVER A console.</p>	<p>Connect to the SERVER A console using one of the access methods described in Section 2.3.</p>
<p>2.</p> <input type="checkbox"/>	<p>SERVER A: 1) Access the command prompt. 2) Log into the HP DL360 server as the "admusr" 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: admusr Password: <admusr_password></pre>
<p>3.</p> <input type="checkbox"/>	<p>SERVER A: Output similar to that shown on the right will appear as the server access the command prompt.</p>	<p>*** TRUNCATED OUTPUT ***</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 [admusr@hostname1260476221 ~]\$</pre>
<p>4.</p> <input type="checkbox"/>	<p>SERVER A: Verify IOS images on the system</p>	<pre>\$ ls /var/lib/tftpboot/ <IOS_image_file></pre> <p>If the correct IOS version is displayed, skip forward to Step 7.</p>

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

Step	Procedure	Result
<p>5.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Place USB drive containing the the HP Misc Firmware image with the correct 4948E-F IOS version into the SERVER A front panel USB port.</p>	 <p>Figure 4 - HP DL360 G6 Front Panel (USB Port)</p> <p>Figure 5 - HP DL380 Gen8, Front Panel (USB Port)</p> <p>Figure 6 - HP DL380 Gen9, Front Panel (USB Port)</p>
<p>6.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Copy IOS image onto the system</p>	<pre>\$ mount /dev/scd0 /media/cdrom \$ cp /media/cdrom/files/<New_IOS_image_file> /var/lib/tftpboot/ \$ chmod 644 /var/lib/tftpboot/<New_IOS_image_file> \$ umount /media/cdrom</pre>
<p>7.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Prepare the system for IOS transfer.</p>	<pre>\$ tpdProvd --client --noxml --ns=Xinetd startXinetdService service tftp Login on Remote: platcfg Password of platcfg: <platcfg_password> 1 \$</pre>
<p>8.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify the current bonded interface configuration.</p>	<pre>\$ ifconfig grep bond bond0 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C bond0.2 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C bond0.4 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6C bond1 Link encap:Ethernet HWaddr 98:4B:E1:6E:87:6E \$</pre> <p>Execute one of the following options:</p> <ul style="list-style-type: none"> • If bond0 & bond0.2 are both present, skip to Step 10. • If only bond0 is present, continue with the following step.

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

Step	Procedure	Result
<p>9.</p> <p><input type="checkbox"/></p>	<p>SERVER A:</p> <p>For Gen6 & Gen8:</p> <p>Create the bond0.2 and add interfaces eth01 & eth11 to it.</p> <p>For Gen9:</p> <p>Create the bond0.2 and add interfaces eth01 & eth02 to it.</p>	<p><u>For Gen6 & Gen8:</u></p> <pre>\$ netAdm delete --device=bond0</pre> <pre>\$ netAdm add --device=bond0 --onboot=yes --type=Bonding --mode=active-backup --miimon=100 --bootproto=none</pre> <pre>\$ netAdm set --device=eth01 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes</pre> <pre>\$ netAdm set --device=eth11 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes</pre> <p>Add the <SERVER A_mgmtVLAN_IP_address> to bond0.2</p> <pre>\$ netAdm add --device=bond0.2 --address=169.254.1.11 --netmask=255.255.255.0 --onboot=yes</pre> <p><u>For Gen9:</u></p> <pre>\$ netAdm delete --device=bond0</pre> <pre>\$ netAdm add --device=bond0 --onboot=yes --type=Bonding --mode=active-backup --miimon=100 --bootproto=none</pre> <pre>\$ netAdm set --device=eth01 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes</pre> <pre>\$ netAdm set --device=eth02 --bootproto=none --type=Ethernet --master=bond0 --slave=yes --onboot=yes</pre> <p>Add the <SERVER A_mgmtVLAN_IP_address> to bond0.2</p> <pre>\$ 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>SERVER A:</p> <p>Disable the bond0.2 interface to switch1B and verify the bond0.2 IP address.</p>	<p>On SERVER A ensure that the interface connected to switch1A is the only interface available and obtain the IP address of <SERVER A_mgmtVLAN_Interface> by performing the following commands:</p> <p>For Gen6 & Gen8:</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 <SERVER A_mgmtVLAN_ip_address>.</p> <p>For Gen 9:</p> <pre> \$ ifdown eth02 \$ 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 <SERVER A_mgmtVLAN_ip_address>.</p>
<p>11.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Connect to switch1A console</p>	<pre> console -M <SERVER A_mgmtVLAN_ip_address> -l platcfg switch1A_console \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1A_console Enter platcfg@pmac5000101's password: <platcfg_password> [Enter `^Ec?' for help] Press <Enter> </pre>

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

Step	Procedure	Result
<p>12.</p> <input type="checkbox"/>	<p>switch1A: Enter enable mode</p>	<pre>Switch> enable Switch#</pre>
<p>13.</p> <input type="checkbox"/>	<p>switch1A: 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>
<p>14.</p> <input type="checkbox"/>	<p>switch1A: Test connectivity</p>	<pre>ping <SERVER A_mgmtVLAN_ip_address> Switch# ping 169.254.1.11 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to <SERVER A_mgmtVLAN_ip_address>, timeout is 2 seconds: !!!!!! Success rate is 100 percent (5/5), round trip min/avg/max = 1/1/4 ms</pre> <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>
<p>15.</p> <input type="checkbox"/>	<p>switch1A: Upload IOS image to switch</p>	<pre>Switch# copy tftp: bootflash: Address or name of remote host []? <SERVER A_mgmtVLAN_ip_address> Source filename []? <New_IOS_image_file> Destination filename [<New_IOS_image_file>]? <ENTER></pre> <p>Press <Enter> here, you do NOT want to change the filename</p> <pre>Accessing tftp://<SERVER A_mgmtVLAN_ip address>/<IOS_image_file>... Loading <IOS_image_file> from <SERVER A_mgmtVLAN_ip_address> (via Vlan2): !!! !! [OK - 45606 bytes]</pre> <p>45606 bytes copied in 3.240 secs (140759 bytes/sec)</p>

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

Step	Procedure	Result
<p>16.</p> <input type="checkbox"/>	<p>switch1A: 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>NOTE: Here, you should note which IOS you uploaded, and the one which was already on the switch. Note the one that was already on the switch, this will be the one to delete, as notated by the variable <OLD_IOS_image></p>
<p>17.</p> <input type="checkbox"/>	<p>switch1A: Remove old IOS image</p>	<pre>Switch# delete /force /recursive bootflash:<OLD_IOS_image> Switch#</pre>
<p>18.</p> <input type="checkbox"/>	<p>switch1A: 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>NOTE: Here, you should see only the IOS version you uploaded.</p>
<p>19.</p> <input type="checkbox"/>	<p>Switch1A: 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] <ENTER> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram Switch#config t Enter configuration commands, one per line. End with CNTL/Z. Switch(config)#no vlan 2-1024 %Default VLAN 1002 may not be deleted. %Default VLAN 1003 may not be deleted. %Default VLAN 1004 may not be deleted. %Default VLAN 1005 may not be deleted. Switch(config)#config-register 0x2101 Switch(config)#end Switch# *Jan 26 12:53:31.675: %SYS-5-CONFIG_I: Configured from console by console Switch#</pre>
<p>20.</p> <input type="checkbox"/>	<p>switch1A: Reload the switch</p>	<pre>Switch#reload System configuration has been modified. Save? [yes/no]: no Proceed with reload? [confirm] <ENTER></pre> <p>! WARNING!: It is extremely important to answer “no” to the above “Save?” option.</p>

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

Step	Procedure	Result
21. <input type="checkbox"/>	switch1A: After the reload, enter <i>enable</i> mode.	Switch> enable Switch#
22. <input type="checkbox"/>	switch1A: Wait until the switch is reloaded, then confirm the correct IOS image.	Switch> show version include image System image file is "bootflash:cat4500-entservicesk9-mz.122-54.WO.bin" Switch> NOTE: Here, you should see only the IOS version you uploaded. If the IOS version is not at the correct version, stop here and contact Customer Care Center.
23. <input type="checkbox"/>	switch1A: Locate old IOS image to be removed.	Switch# dir bootflash: Directory of bootflash:/ 1 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-entservicesk9-mz.122-54.WO.bin 60817408 bytes total (43037392 bytes free) NOTE: Here, you should see only the IOS version you uploaded.
24. <input type="checkbox"/>	switch1A: Exit the switch1A console session.	Switch# <CTRL-e><c><.> Hot Key sequence: Ctrl-E, C, period
25. <input type="checkbox"/>	SERVER A: Disable the bond0.2 interface to switch1A.	On SERVER A ensure that the interface of the server connected to switch1B is the only interface up and obtain the IP address of <SERVER A_mgmtInterface> by performing the following commands: For Gen6 & Gen8: \$ ifup eth11 \$ ifdown eth01 For Gen9: \$ ifup eth02 \$ ifdown eth01 NOTE: The command output should contain the IP address of the variable <SERVER A_mgmtVLAN_ip_address>.
26. <input type="checkbox"/>	SERVER A: Connect to switch1B console	console -M <SERVER A_mgmtVLAN_ip_address> -l platcfg switch1B_console \$ /usr/bin/console -M 169.254.1.11 -l platcfg switch1B_console Enter platcfg@pmac5000101's password: <platcfg_password> [Enter `^Ec?' for help] Press <Enter>
27. <input type="checkbox"/>	switch1B: Enter enable mode	Switch> enable Switch#

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

Step	Procedure	Result
32. <input type="checkbox"/>	switch1B: Remove old IOS image	Switch# delete /force /recursive bootflash:<OLD_IOS_image> Switch#
33. <input type="checkbox"/>	switch1B: Locate old IOS image to be removed	Switch# dir bootflash: Directory of bootflash:/ 1 -rwx 17779888 May 11 2011 02:25:23 -05:00 cat4500-entservicesk9-mz.122-54.WO.bin 60817408 bytes total (43037392 bytes free) Here, you should see only the IOS version you uploaded.
34. <input type="checkbox"/>	Switch1B: Reset switch back to factory defaults by deleting the VLANs.	Switch# write erase Erasing the nvram filesystem will remove all configuration files! Continue? [confirm] <ENTER> [OK] Erase of nvram: complete Switch# *Jan 26 12:53:06.547: %SYS-7-NV_BLOCK_INIT: Initialized the geometry of nvram Switch# config t Enter configuration commands, one per line. End with CNTL/Z. Switch(config)# no vlan 2-1024 %Default VLAN 1002 may not be deleted. %Default VLAN 1003 may not be deleted. %Default VLAN 1004 may not be deleted. %Default VLAN 1005 may not be deleted. Switch(config)# config-register 0x2101 Switch(config)# end Switch# *Jan 26 12:53:31.675: %SYS-5-CONFIG_I: Configured from console by console Switch#
35. <input type="checkbox"/>	switch1B: Reload the switch	Switch# reload Proceed with reload? [confirm] <ENTER> System config modified. save? <y>
36. <input type="checkbox"/>	switch1B: Wait until the switch is reloaded, then confirm the correct IOS image	Switch> show version include image System image file is "bootflash:cat4500-entservicesk9-mz.122-54.WO.bin" Switch>
37. <input type="checkbox"/>	switch1B: Enter enable mode	Switch> enable Switch#

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

Step	Procedure	Result
<p>38.</p> <input type="checkbox"/>	<p>switch1B: 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>
<p>39.</p> <input type="checkbox"/>	<p>switch1A: Exit the switch1A console session.</p>	<pre>Switch# <CTRL-e><c><. ></pre> <p>Hot Key sequence: Ctrl-E, C, period</p>
<p>40.</p> <input type="checkbox"/>	<p>SERVER A: Re-enable the bond0.2 interface to switch1A.</p>	<p>On SERVER A ensure that the both bond0.2 interfaces are up:</p> <p>For Gen6 & Gen8:</p> <pre>\$ ifup eth11 \$ ifup eth01</pre> <p>For Gen9:</p> <pre>\$ ifup eth02 \$ ifup eth01</pre>
<p>41.</p> <input type="checkbox"/>	<p>SERVER A: Stop the "tftp" service.</p>	<pre>\$ tpdProvd --client --noxml --ns=Xinetd stopXinetdService service tftp</pre> <p>Login on Remote: platcfg</p> <p>Password of platcfg: <platcfg_password></p> <p>1</p>
<p>THIS PROCEDURE HAS BEEN COMPLETED</p>		

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
10. <input type="checkbox"/>	SERVER A: Access the SERVER A console.	Connect to the SERVER A console using one of the access methods described in Section 2.3 .
11. <input type="checkbox"/>	SERVER A: Log into server as the "admusr" user.	login: admusr Using keyboard-interactive authentication. Password: <admusr_password>
12. <input type="checkbox"/>	SERVER A: Change to admusr user	\$ sudo su -
13. <input type="checkbox"/>	SERVER A: Verify hostmane of the switch1A	\$ netConfig --device=<switch_name> getHostname Hostname: switch1A Note: The value beside "Hostname:" should be the same as the <switch_name> variable
14. <input type="checkbox"/>	SERVER A: Verify SSH service	\$ netConfig --repo showService name=ssh_service Service Name: ssh_service Type: ssh Host: 169.254.1.11 Options: password: 615EBD88232A2EFD0080AC990393083D user: admusr
15. <input type="checkbox"/>	SERVER A: Change directory	\$ cd
16. <input type="checkbox"/>	SERVER A: Run backup command	\$ netConfig --device=<switch_name> backupConfiguration service=ssh_service filename=<switch_name>-backup

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

Step	Procedure	Result
<p>17.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Verify backup and inspect its contents to ensure they reflect the configured values</p>	<pre>\$ ls <switch_name>-backup* \$ \$ cat <switch_name>-backup</pre>
<p>18.</p> <input type="checkbox"/>	<p>Repeat steps 4 - 8 for switch1B.</p>	
<p>19.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Copy the switch1A backup files to the permanent backup storage directory</p>	<pre>\$ scp -p <switch1A_name>-backup* 169.254.1.11:/<switch_backup_directory>/</pre>
<p>20.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Copy the switch1B backup files to the permanent backup storage directory</p>	<pre>\$ scp -p <switch1B_name>-backup* 169.254.1.12:/<switch_backup_directory>/</pre>
<p>21.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Move the switch1A backup files to the permanent backup storage directory</p>	<pre>\$ mv *<switch1A_name>-backup* <switch_backup_directory>/</pre>
<p>22.</p> <input type="checkbox"/>	<p>SERVER A:</p> <p>Move the switch1B backup files to the permanent backup storage directory</p>	<pre>\$ mv *<switch1B_name>-backup* <switch_backup_directory>/</pre>
<p>THIS PROCEDURE HAS BEEN COMPLETED</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"> THE HIGHLIGHTED VALUES IN EACH TABLE MUST BE UPDATED BY THE USER FOR EACH NETWORK ELEMENT (SITE).
---	--

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

NOTE_2: The **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. Note: Do NOT change this name.
<vlanId>2</vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip>169.254.1.0</ip>	[Range = A valid IP address] - The network address of this VLAN
<mask>255.255.255.0</mask>	Subnetting to apply to servers within this VLAN
</network>	
<network>	
<name>XMI</name>	Name of customer external network. Note: Do NOT change this name.
<vlanId>3</vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip>10.250.55.0</ip>	[Range = A valid IP address] - This network must be the same as the associated DSR NE XMI network subnet within the same SOAM enclosure.
<mask>255.255.255.0</mask>	Must be the same as the associated DSR NE XMI netmask within the same SOAM enclosure.
<gateway>10.250.55.1</gateway>	[Range = A valid IP address] - This gateway address must be the same as the associated DSR NE XMI network gateway within the same SOAM enclosure.
<isDefault>>true</isDefault>	[Range = true/false] - true if this is the network with the default gateway.
</network>	
<network>	
<name>IMI</name>	Name of customer internal network. Note: Do NOT change this name.
<vlanId>4</vlanId>	[Range = 2-4094.] - The VLAN ID to use for this VLAN.
<ip>169.254.100.0</ip>	[Range = A valid IP address] - This network must be the same as the DSR IMI network subnet within the SOAM enclosure.
<mask>255.255.255.0</mask>	Must be the same as the DSR IMI netmask within the SOAM enclosure.
<nonRoutable>true</nonRoutable>	[Range = true / false] - Determines whether or not the IMI network subnet is treated as a routable network.
</network>	
</networks>	
</networkelement>	

Table 5 - SDS Network Element Configuration File (IPv6)

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

Appendix G. NETBACKUP CLIENT INSTALLATION

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

Appendix G: NetBackup Client Installation

<p>Step</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 ACCESSING MY ORACLE SUPPORT (MOS). 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>NOTE: If installing Netbackup client software, it must be installed and configured on all SDS servers (Primary SDS and DR SDS servers only).</p> <p>NOTE: Location of the bpstart_notify and bpend_notify scripts is required for the execution of this step. These scripts are located as follows: /usr/TKLC/appworks/sbin/bpstart_notify /usr/TKLC/appworks/sbin/bpend_notify</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 <path>/bpstart_notify /usr/opencv/netbackup/bin/bpstart_notify ln -s <path>/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

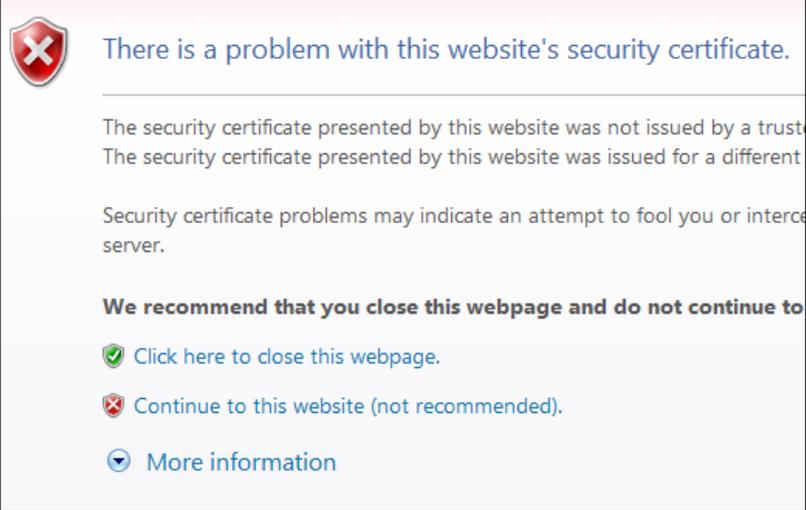
<i>Asia/Hong_Kong</i>		UTC+08
<i>Pacific/Guam</i>		UTC+10
<i>Europe/Athens</i>		UTC+02
<i>Europe/London</i>		UTC+00
<i>Europe/Paris</i>		UTC+01
<i>Europe/Madrid</i>	mainland	UTC+01
<i>Africa/Cairo</i>		UTC+02
<i>Europe/Copenhagen</i>		UTC+01
<i>Europe/Berlin</i>		UTC+01
<i>Europe/Prague</i>		UTC+01
<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

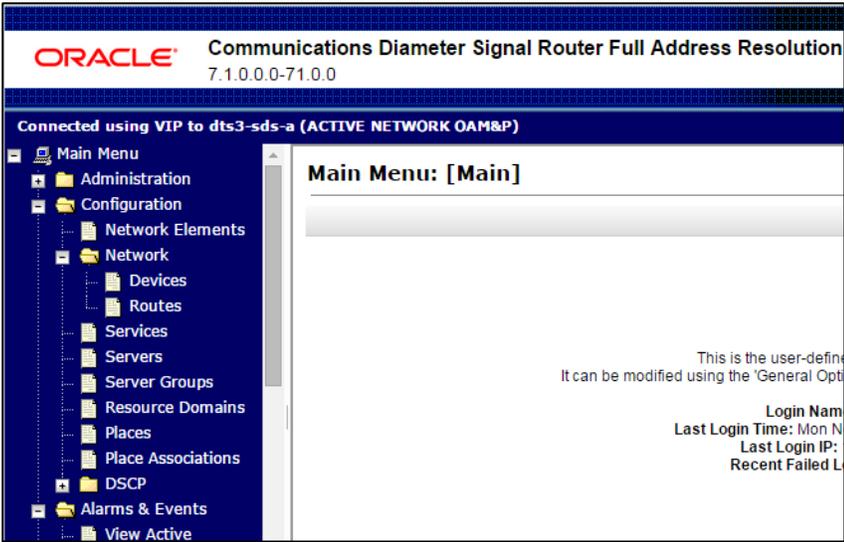
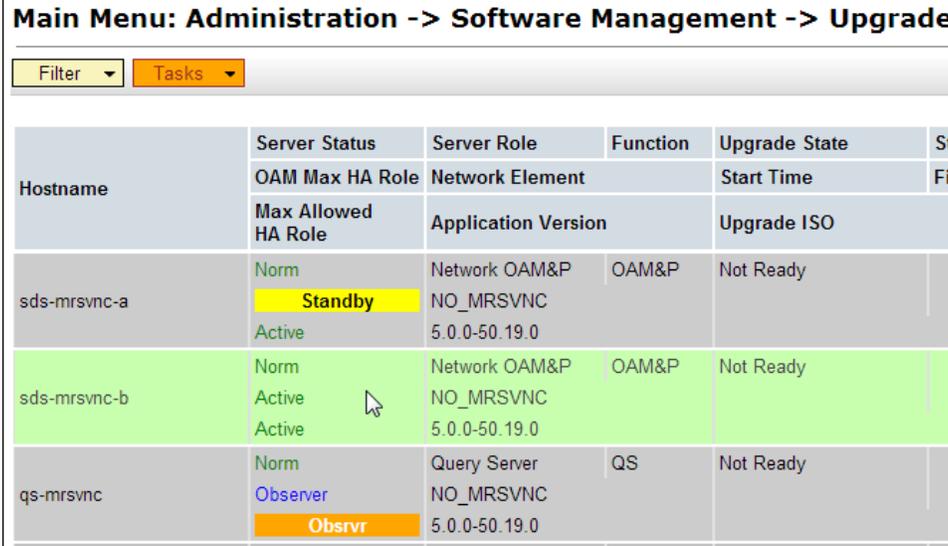
Appendix I. ACCEPTING INSTALLATION THROUGH SDS NOAM GUI

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

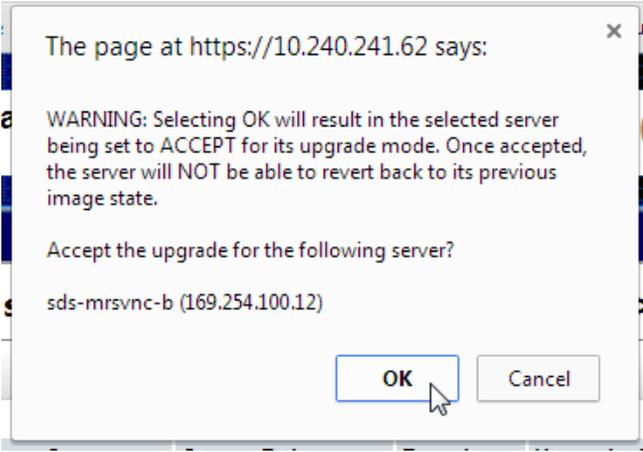
Appendix I: Accepting Installation through SDS NOAM GUI

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

Appendix I: Accepting Installation through SDS NOAM GUI

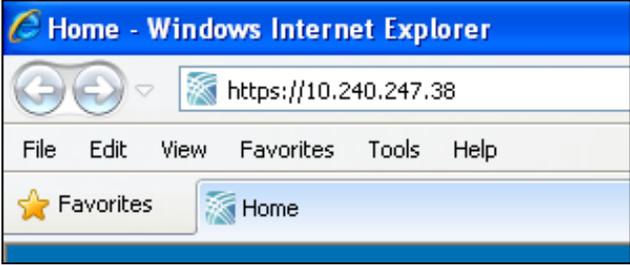
Step	Procedure	Result																								
<p>3.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>The user should be presented the SDS Main Menu as shown on the right.</p>																									
<p>4.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Using the cursor left-click, select the row containing the Server(s) for which you would like to “Accept” upgrade.</p> <p>NOTE: Multi-select is available by holding down the “CTRL” key while using the cursor to left-click multiple rows.</p>	 <table border="1"> <thead> <tr> <th>Hostname</th> <th>Server Status</th> <th>Server Role</th> <th>Function</th> <th>Upgrade State</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>sds-mrsvnc-a</td> <td>Norm Active</td> <td>Network OAM&P NO_MRSVNC 5.0.0-50.19.0</td> <td>OAM&P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>sds-mrsvnc-b</td> <td>Norm Active</td> <td>Network OAM&P NO_MRSVNC 5.0.0-50.19.0</td> <td>OAM&P</td> <td>Not Ready</td> <td></td> </tr> <tr> <td>qs-mrsvnc</td> <td>Norm Observer</td> <td>Query Server NO_MRSVNC 5.0.0-50.19.0</td> <td>QS</td> <td>Not Ready</td> <td></td> </tr> </tbody> </table>	Hostname	Server Status	Server Role	Function	Upgrade State	Status	sds-mrsvnc-a	Norm Active	Network OAM&P NO_MRSVNC 5.0.0-50.19.0	OAM&P	Not Ready		sds-mrsvnc-b	Norm Active	Network OAM&P NO_MRSVNC 5.0.0-50.19.0	OAM&P	Not Ready		qs-mrsvnc	Norm Observer	Query Server NO_MRSVNC 5.0.0-50.19.0	QS	Not Ready	
Hostname	Server Status	Server Role	Function	Upgrade State	Status																					
sds-mrsvnc-a	Norm Active	Network OAM&P NO_MRSVNC 5.0.0-50.19.0	OAM&P	Not Ready																						
sds-mrsvnc-b	Norm Active	Network OAM&P NO_MRSVNC 5.0.0-50.19.0	OAM&P	Not Ready																						
qs-mrsvnc	Norm Observer	Query Server NO_MRSVNC 5.0.0-50.19.0	QS	Not Ready																						
<p>5.</p> <p><input type="checkbox"/></p>	<p>Primary SDS VIP:</p> <p>Using the cursor left-click, select the “Accept” dialogue button.</p>																									

Appendix I: Accepting Installation through SDS NOAM GUI

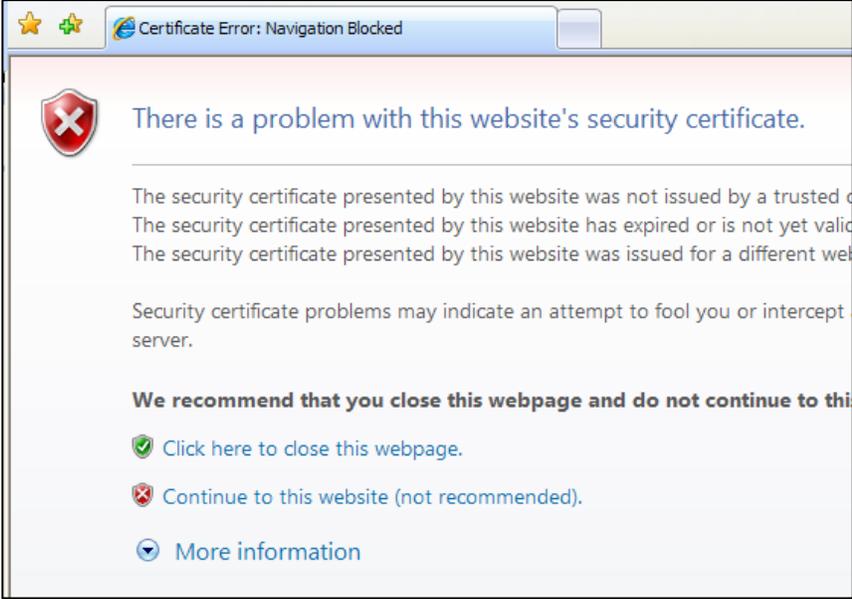
Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p>Primary SDS VIP:</p> <p>The user is presented with a dialogue box stating that the “Accept Upgrade” action is irreversible and locks the Server on the current software release (<i>i.e. Backout to the previous release is no longer allowed</i>).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

Appendix J. DISABLE HYPERTHREADING (DP ONLY)

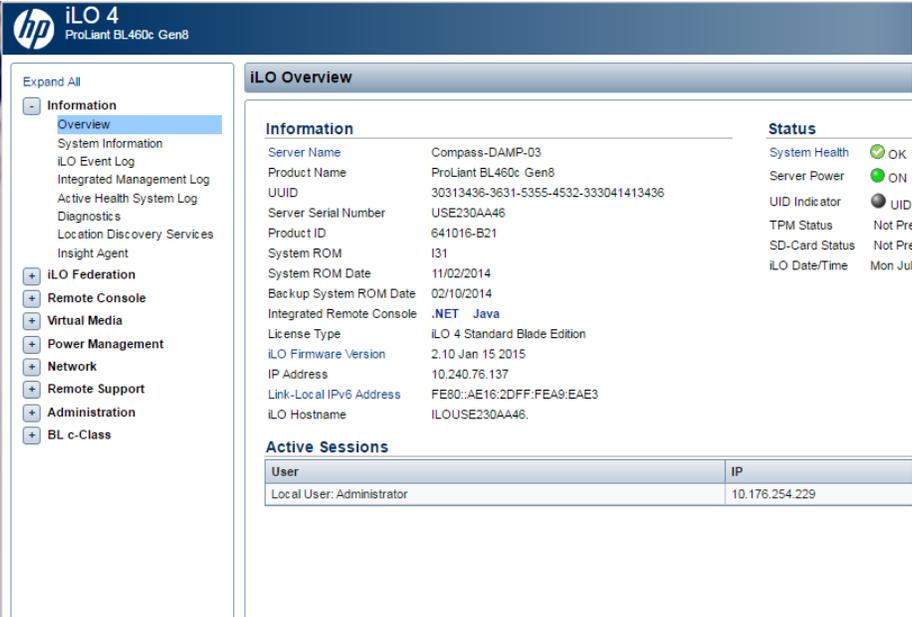
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>DP Server XMI IP (SSH):</p> <p>Access the command prompt via DP blade's XMI IP address and log into the server as the "admusr" user.</p>	<pre>login: admusr Password: <admusr_password></pre>
<p>2.</p> <input type="checkbox"/>	<p>DP Server XMI IP (SSH):</p> <p>Change to admusr user</p>	<pre>\$ sudo</pre>
<p>3.</p> <input type="checkbox"/>	<p>DP Server XMI IP (SSH):</p> <p>Execute "hpsasmcli" command to determine status of hyperthreading for the DP blade.</p>	<pre>\$ sudo hpsasmcli -s "show ht"</pre> <p>Processor hyper-threading is currently enabled.</p> <p>NOTE: 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"> If output from Step 3 shows that hyperthreading is currently "enabled", then continue with Step 5 of this procedure. If output from Step 3 shows that hyperthreading is currently "disabled", then STOP and restart Appendix J for the next installed DP blade. </div>	
<p>5.</p> <input type="checkbox"/>	<p>Launch the Internet Explorer web browser and connect to the DP-iLO GUI interface.</p> <p>NOTE: Always use <i>https://</i> for iLO GUI access.</p>	 <p>!!! WARNING !!!</p> <p><i>Verify the DP-iLO IP address before proceeding. The user must login using the DP-iLO IP address only.</i></p>

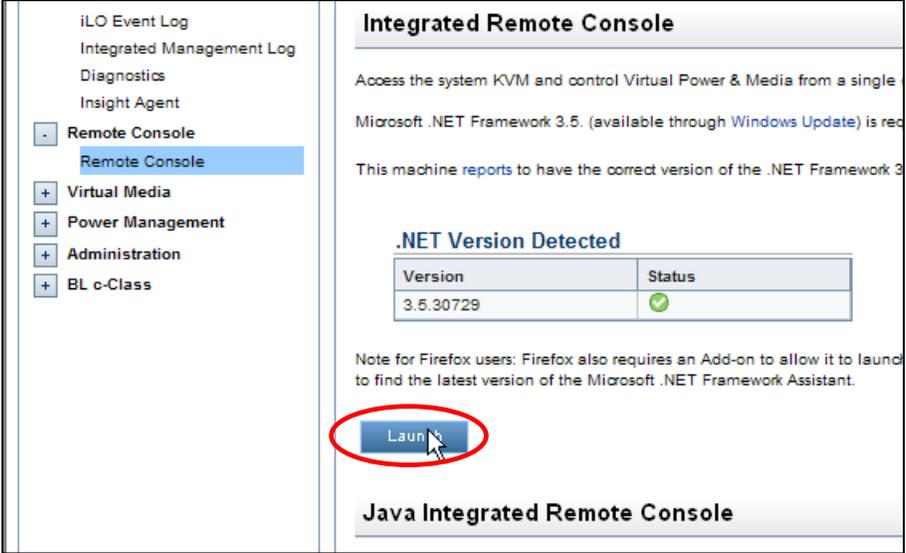
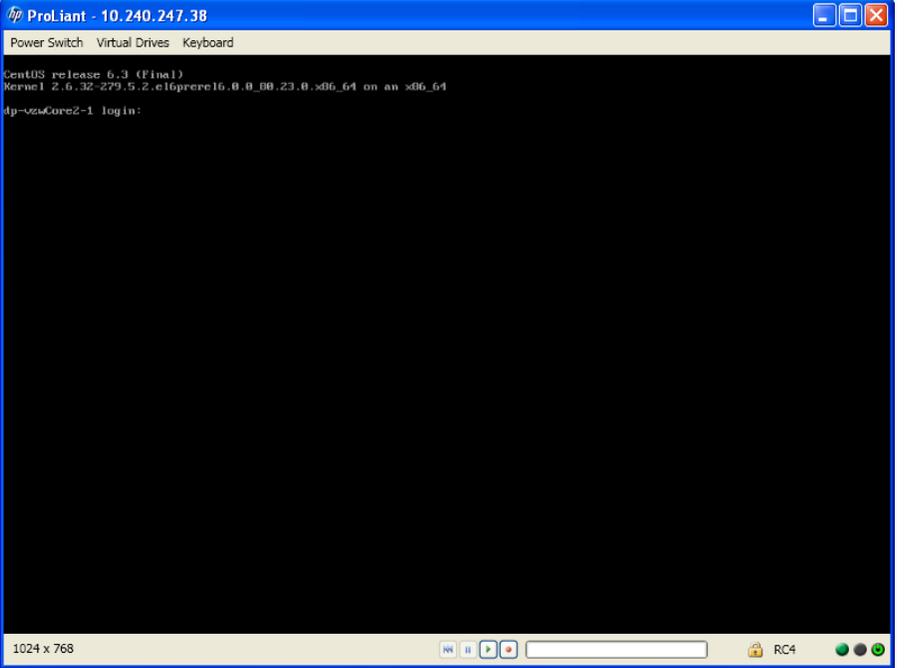
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>6.</p> <input type="checkbox"/>	<p>The web browser will display a warning message regarding the Security Certificate.</p> <p>NOTE: <i>If presented with the “security certificate” warning screen shown to the right, choose the following option: “Continue to this website (not recommended)”.</i></p>	
<p>7.</p> <input type="checkbox"/>	<p>Login to the iLO console as “Administrator” and enter the configured password.</p>	

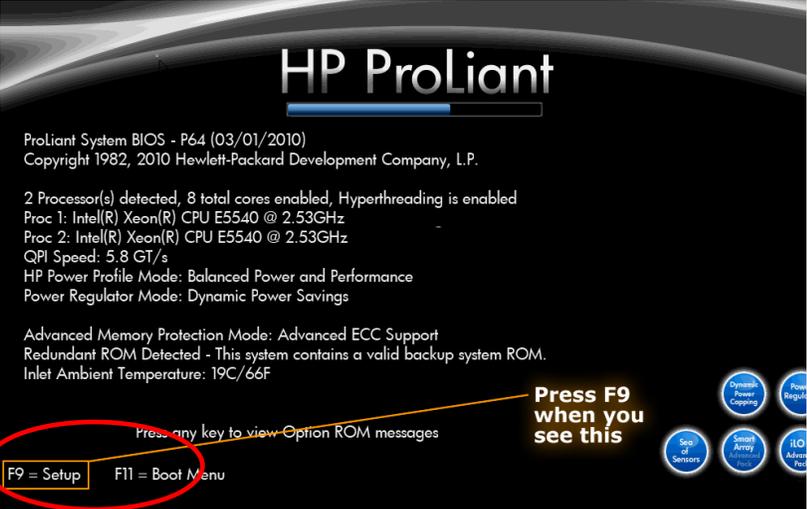
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>8.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>The admin GUI is displayed.</p> <p>Select the “Remote Console” tab in the upper left corner of the GUI.</p>	
<p>9.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>The Remote Console Information GUI is displayed</p> <p>Click on the “Remote Console” menu option</p>	

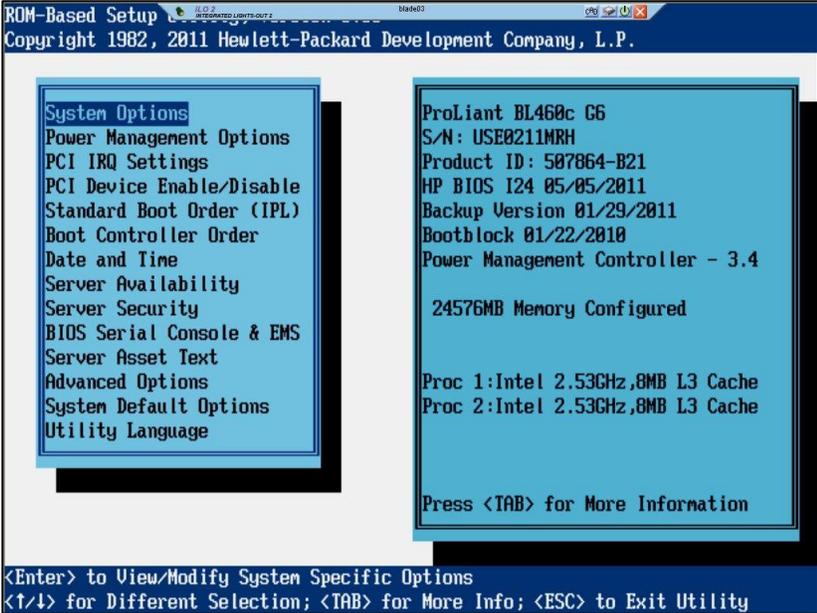
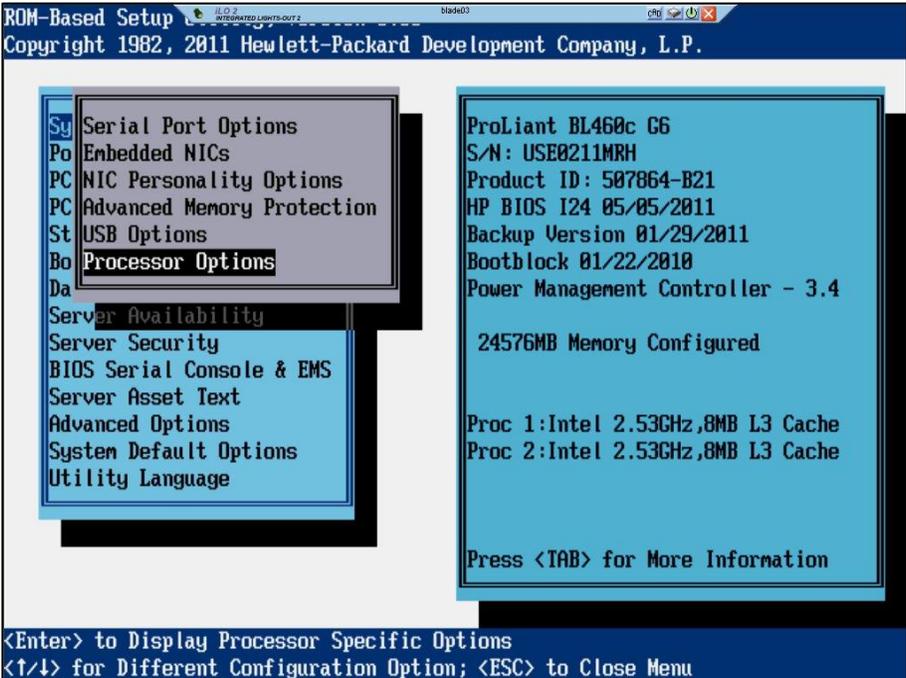
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>10.</p> <p><input type="checkbox"/></p>	<p>Under the “Integrated Remote Console” section in the top of the right panel, click on the “Launch” dialogue button.</p> <p>NOTE: Answer “Yes/OK” to any pop-up windows that might appear.</p>	
<p>11.</p> <p><input type="checkbox"/></p>	<p>The iLO Console window is displayed.</p> <p>NOTE: The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</p>	

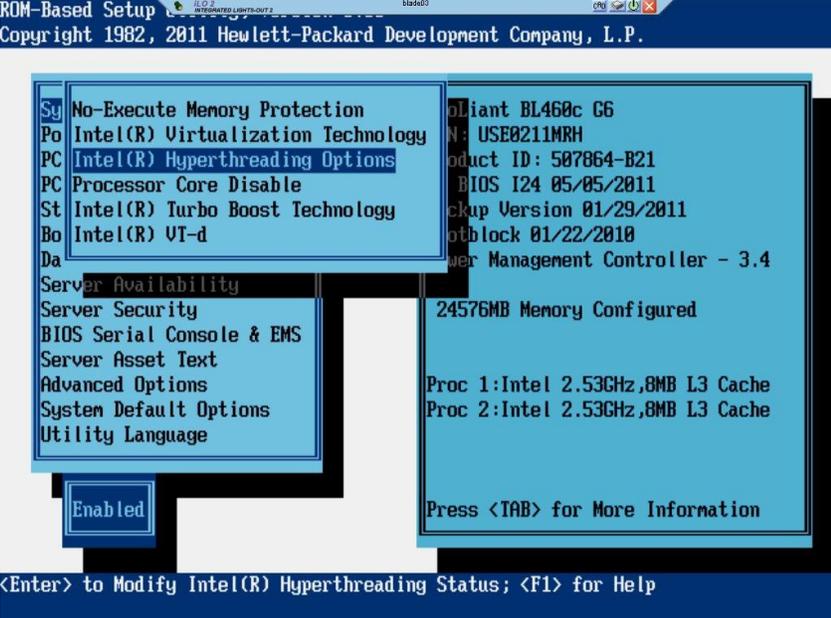
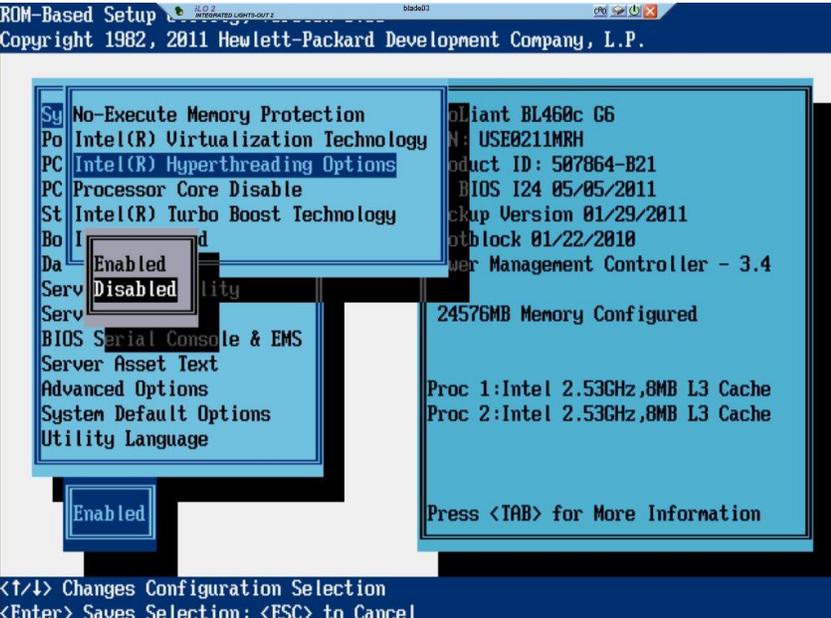
Appendix J: Disable Hyperthreading (DP Only)

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

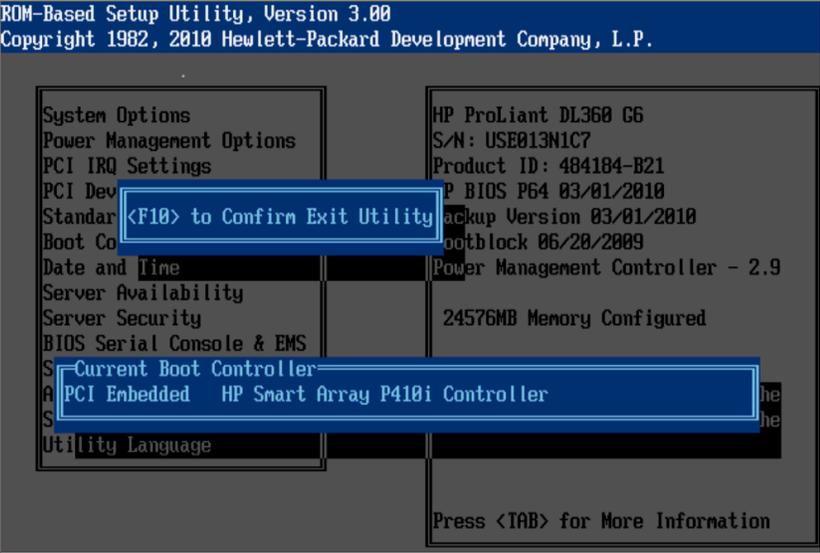
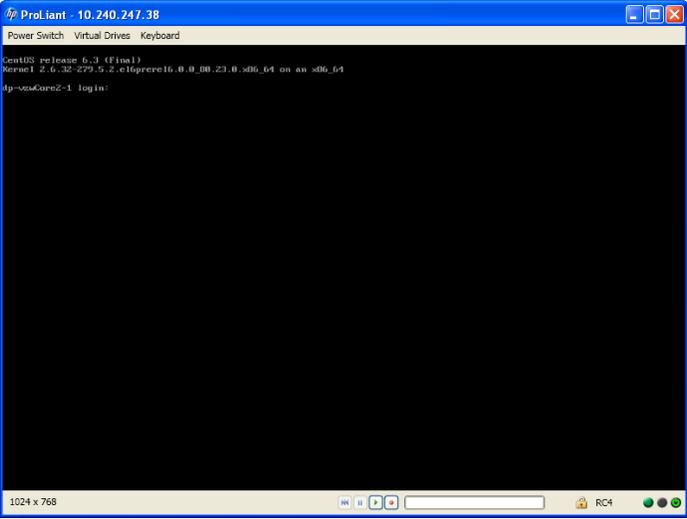
Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
<p>14.</p> <input type="checkbox"/>	<p>Select System Options</p>	<p>Scroll to System Options 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 & 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 include: <Enter> to View/Modify System Specific Options, <↑/↓> for Different Selection, <TAB> for More Info, and <ESC> to Exit Utility.</p>
<p>15.</p> <input type="checkbox"/>	<p>Select Processor Options</p>	<p>Select Processor Options 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 & 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 include: <Enter> to Display Processor Specific Options, <↑/↓> for Different Configuration Option, and <ESC> 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 Intel® Hyperthreading Options and press [ENTER].</p>  <p>The screenshot shows the 'ROM-Based Setup' interface. The 'Intel(R) Hyperthreading Options' menu is highlighted, and the 'Enabled' option is selected. The background displays system information including 'Hewlett-Packard BL460c G6', 'Product ID: 507864-B21', and 'BIOS I24 05/05/2011'. The bottom of the screen shows the instruction: '<Enter> to Modify Intel(R) Hyperthreading Status; <F1> for Help'.</p>
<p>17.</p> <p><input type="checkbox"/></p>	<p>Set hyperthreading to Disabled.</p>	<p>Select Disabled option and press [ENTER].</p>  <p>The screenshot shows the 'ROM-Based Setup' interface. The 'Intel(R) Hyperthreading Options' menu is highlighted, and the 'Disabled' option is selected. The background displays system information including 'Hewlett-Packard BL460c G6', 'Product ID: 507864-B21', and 'BIOS I24 05/05/2011'. The bottom of the screen shows the instruction: '<↑/↓> Changes Configuration Selection <Enter> Saves Selection; <ESC> to Cancel'.</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>NOTE: <i>It is normal for the Remote Console window to stay blank for up to 3 minutes before initial output appears.</i></p>	<p>Press [F10] to save the configuration and exit. The server will reboot</p>  <p>Expected Result: <i>Settings are saved and server reboots.</i></p>
<p>19.</p> <p><input type="checkbox"/></p>	<p>Continue to monitor the server boot process until the screen returns to the login prompt.</p>	
<p>20.</p> <p><input type="checkbox"/></p>	<p>Close the Remote Console window.</p>	

Appendix J: Disable Hyperthreading (DP Only)

Step	Procedure	Result
21. <input type="checkbox"/>	DP Server XMI IP (SSH): Access the command prompt via the server's XMI IP address and log into the server as the "admusr" user.	login: <code>admusr</code> Password: <code><admusr_password></code>
22. <input type="checkbox"/>	DP Server XMI IP (SSH): Change to root user	<code>\$ sudo</code>
23. <input type="checkbox"/>	DP Server XMI IP (SSH): 1) Execute " syscheck ". 2) Record the number of " found " CPU(s) below. " found " CPU(s): _____	<code>\$ sudo syscheck</code> 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
24. <input type="checkbox"/>	DP Server XMI IP (SSH): Modify the " EXPECTED_CPUS " value to the number of " found " CPU(s) recorded in the previous Step 23 of this Procedure.	<code>\$ sudo syscheckAdm system cpu --set --var='EXPECTED_CPUS' --val='20'</code>
25. <input type="checkbox"/>	DP Server XMI IP (SSH): Verify that the " EXPECTED_CPUS " value has been updated to the correct number	<code>\$ syscheckAdm system cpu -get -var='EXPECTED_CPUS'</code> 20
26. <input type="checkbox"/>	DP Server XMI IP (SSH): Restart " syscheck "	<code>\$ sudo restart syscheck</code>

Appendix J: Disable Hyperthreading (DP Only)

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

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

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

K.1.1 RMS: Configure ILO

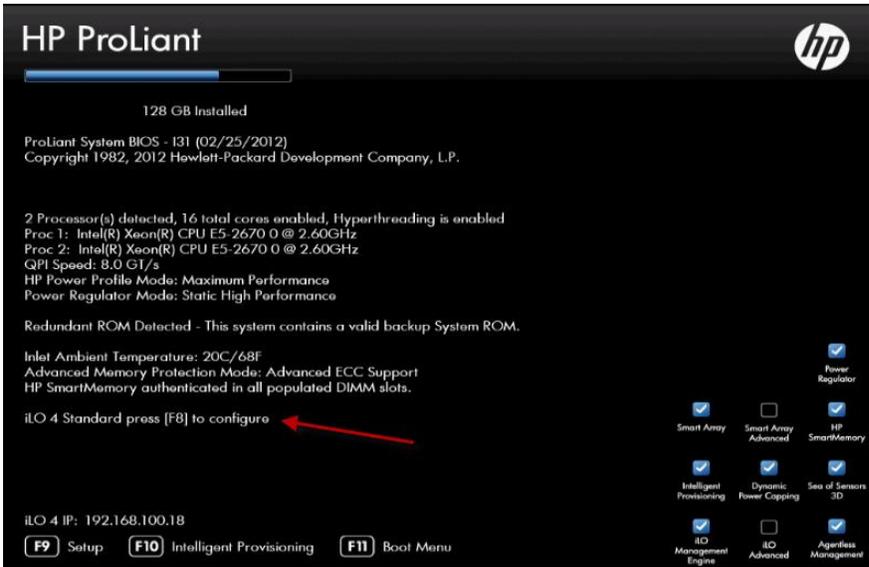
Procedure 12: GEN8: CONFIGURE THE ILO FOR RACK MOUNT SERVER

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

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

Prerequisites & Requirements:

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

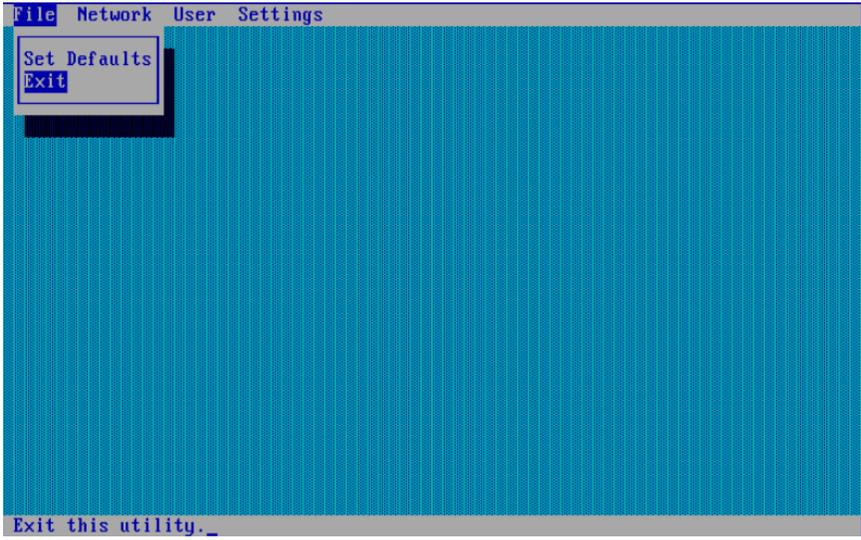
Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS): For HP GEN8 DL380 servers perform the following</p> <ol style="list-style-type: none"> 1. Reboot the server.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

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

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

Prerequisites & Requirements:

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

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

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

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

Prerequisites & Requirements:

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

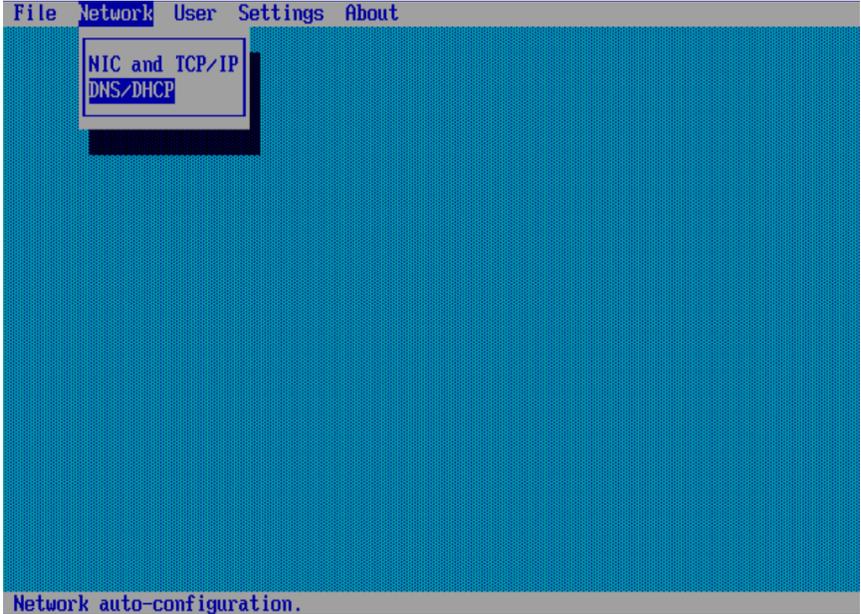
Step	Procedure	Result
3.	Within the Network menu, select DNS/DHCP	 <p>The screenshot shows a blue background with a menu at the top: File, Network, User, Settings, About. A sub-menu is open under 'Network', showing 'NIC and TCP/IP' and 'DNS/DHCP'. At the bottom of the screen, it says 'Network auto-configuration.'</p>

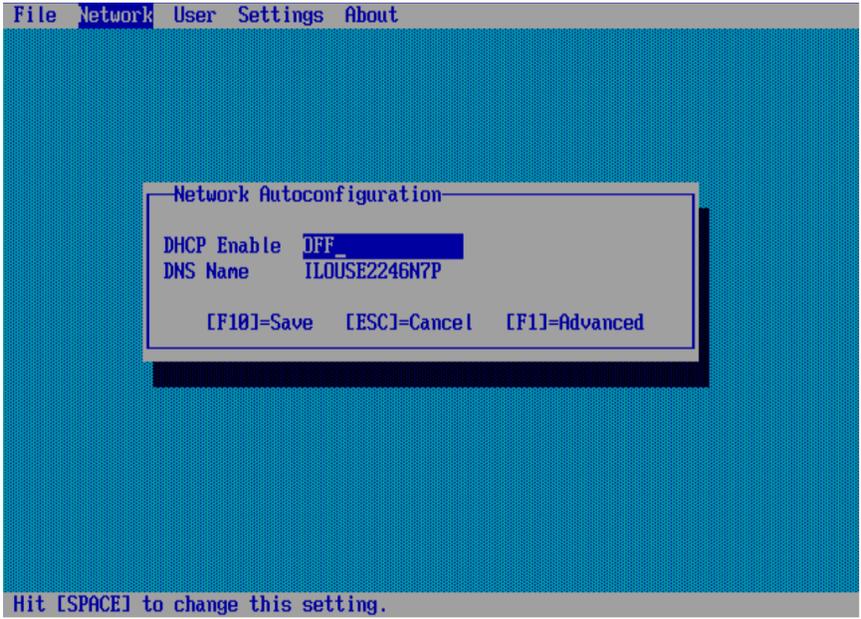
Figure 19. iLO Configuration - select Network->DNS/DHCP

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

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

Prerequisites & Requirements:

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

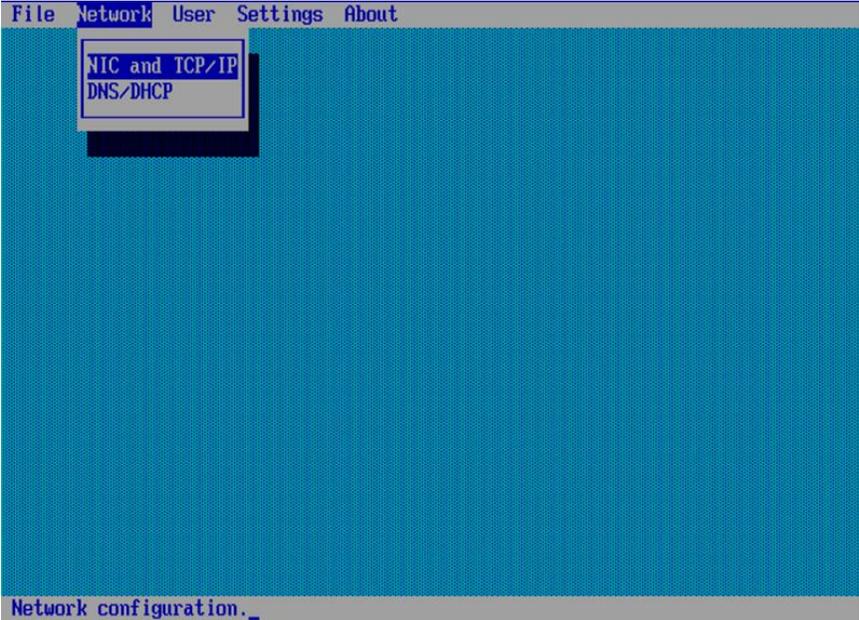
Step	Procedure	Result
4.	Verify that DNS/DHCP is set to OFF. If it is not set to OFF, use the [SPACE BAR] to toggle the setting to 'OFF'	 <p>The screenshot shows the iLO Network configuration interface. At the top, there is a menu bar with 'File', 'Network', 'User', 'Settings', and 'About'. The 'Network' menu is selected. A dialog box titled 'Network Autoconfiguration' is displayed in the center. It contains the following text: 'DHCP Enable OFF', 'DNS Name ILOUSE2246N7P', and at the bottom, '[F10]=Save [ESC]=Cancel [F1]=Advanced'. Below the dialog box, a status bar reads 'Hit [SPACE] to change this setting.'</p> <p>Figure 20. iLO Configuration - press [SPACE BAR] to turn DHCP OFF</p>

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

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

Prerequisites & Requirements:

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

Step	Procedure	Result
5.	<p>Press [F10] to save if changes were made or [ESC] to Cancel if no changes were made. You should be returned to the Network main menu.</p>	 <p>The screenshot shows a blue background with a menu at the top: File, Network, User, Settings, About. A sub-menu is open under 'Network', listing 'NIC and TCP/IP' and 'DNS/DHCP'. The 'NIC and TCP/IP' option is highlighted with a white box. At the bottom of the screen, the text 'Network configuration._' is visible.</p> <p>Figure 21. iLO Configuration - Select NIC and TCP/IP</p>

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

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

Prerequisites & Requirements:

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

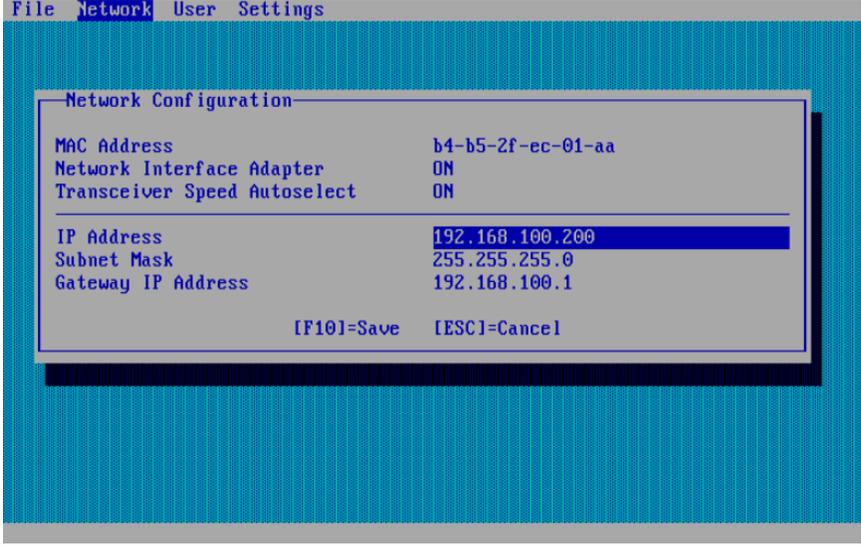
Step	Procedure	Result
6.	Press [ENTER] if required and select 'NIC and TCP/IP'	 <p>The screenshot shows the iLO configuration interface with a menu at the top: File Network User Settings. The 'Network Configuration' window is open, displaying the following settings: MAC Address (b4-b5-2f-ec-01-aa), Network Interface Adapter (ON), Transceiver Speed Autoselect (ON), IP Address (192.168.100.200), Subnet Mask (255.255.255.0), and Gateway IP Address (192.168.100.1). At the bottom, it indicates [F10]=Save and [ESC]=Cancel.</p>

Figure 22. iLO Configuration - Select NIC and TCP/IP and configure Network

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

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

Prerequisites & Requirements:

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

Step	Procedure	Result																																																										
7.	Enter the Network Configuration information for the server. Use the arrow keys to select the field to change	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Default IP Addressing For RMS</th> </tr> <tr> <td colspan="2" style="text-align: center;">Use the following IP addresses for iLO for ship loose servers</td> </tr> <tr> <th style="width: 50%;">RMS</th> <th style="width: 50%;">iLO IP Address</th> </tr> </thead> <tbody> <tr><td>Server-A</td><td>192.168.100.200</td></tr> <tr><td>Server-B</td><td>192.168.100.201</td></tr> <tr><td>Server-C</td><td>192.168.100.202</td></tr> <tr><td>Server-D</td><td>192.168.100.203</td></tr> <tr><td>Server-E</td><td>192.168.100.204</td></tr> <tr><td>Server-F</td><td>192.168.100.205</td></tr> <tr><td>Server-G</td><td>192.168.100.206</td></tr> <tr><td>Server-H</td><td>192.168.100.207</td></tr> <tr><td>Server-I</td><td>192.168.100.208</td></tr> <tr><td>Server-J</td><td>192.168.100.209</td></tr> <tr><td>Server-K</td><td>192.168.100.210</td></tr> <tr><td>Server-L</td><td>192.168.100.211</td></tr> <tr><td>Server-M</td><td>192.168.100.212</td></tr> <tr><td>Server-N</td><td>192.168.100.213</td></tr> <tr><td>Server-O</td><td>192.168.100.214</td></tr> <tr><td>Server-P</td><td>192.168.100.215</td></tr> <tr><td>Server-Q</td><td>192.168.100.216</td></tr> <tr><td>Server-R</td><td>192.168.100.217</td></tr> <tr><td>Server-S</td><td>192.168.100.218</td></tr> <tr><td>Server-T</td><td>192.168.100.219</td></tr> <tr><td>Server-U</td><td>192.168.100.220</td></tr> <tr><td>Server-V</td><td>192.168.100.221</td></tr> <tr><td>Server-W</td><td>192.168.100.222</td></tr> <tr><td>Server-X</td><td>192.168.100.223</td></tr> <tr><td>Server-Y</td><td>192.168.100.224</td></tr> <tr><td>Server-Z</td><td>192.168.100.225</td></tr> </tbody> </table>	Default IP Addressing For RMS		Use the following IP addresses for iLO for ship loose servers		RMS	iLO IP Address	Server-A	192.168.100.200	Server-B	192.168.100.201	Server-C	192.168.100.202	Server-D	192.168.100.203	Server-E	192.168.100.204	Server-F	192.168.100.205	Server-G	192.168.100.206	Server-H	192.168.100.207	Server-I	192.168.100.208	Server-J	192.168.100.209	Server-K	192.168.100.210	Server-L	192.168.100.211	Server-M	192.168.100.212	Server-N	192.168.100.213	Server-O	192.168.100.214	Server-P	192.168.100.215	Server-Q	192.168.100.216	Server-R	192.168.100.217	Server-S	192.168.100.218	Server-T	192.168.100.219	Server-U	192.168.100.220	Server-V	192.168.100.221	Server-W	192.168.100.222	Server-X	192.168.100.223	Server-Y	192.168.100.224	Server-Z	192.168.100.225
Default IP Addressing For RMS																																																												
Use the following IP addresses for iLO for ship loose servers																																																												
RMS	iLO IP Address																																																											
Server-A	192.168.100.200																																																											
Server-B	192.168.100.201																																																											
Server-C	192.168.100.202																																																											
Server-D	192.168.100.203																																																											
Server-E	192.168.100.204																																																											
Server-F	192.168.100.205																																																											
Server-G	192.168.100.206																																																											
Server-H	192.168.100.207																																																											
Server-I	192.168.100.208																																																											
Server-J	192.168.100.209																																																											
Server-K	192.168.100.210																																																											
Server-L	192.168.100.211																																																											
Server-M	192.168.100.212																																																											
Server-N	192.168.100.213																																																											
Server-O	192.168.100.214																																																											
Server-P	192.168.100.215																																																											
Server-Q	192.168.100.216																																																											
Server-R	192.168.100.217																																																											
Server-S	192.168.100.218																																																											
Server-T	192.168.100.219																																																											
Server-U	192.168.100.220																																																											
Server-V	192.168.100.221																																																											
Server-W	192.168.100.222																																																											
Server-X	192.168.100.223																																																											
Server-Y	192.168.100.224																																																											
Server-Z	192.168.100.225																																																											

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

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

Prerequisites & Requirements:

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

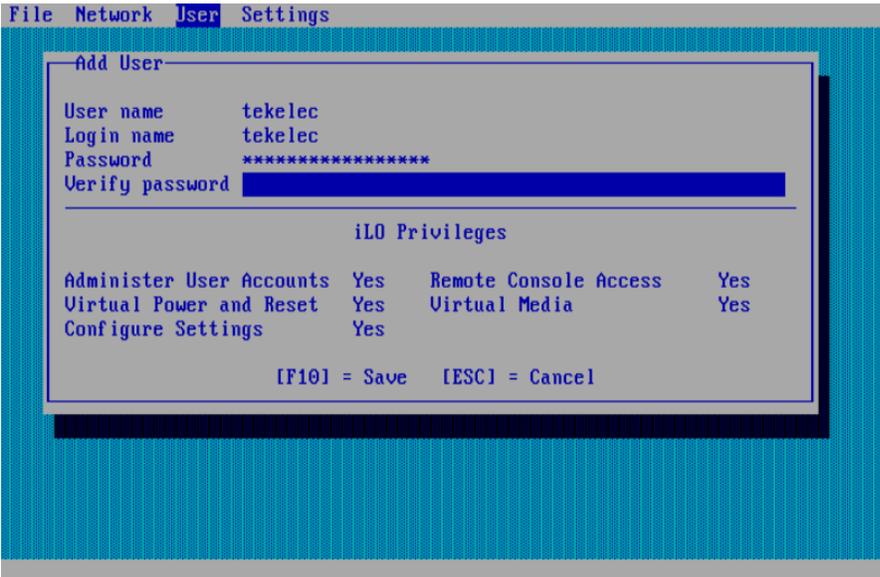
Step	Procedure	Result
8.	<p>Once the Network Configuration information has been entered, press [F10] to save the settings.</p> <p>Using the arrow keys, select the User menu, then select Add and press [ENTER]</p>	 <p>The screenshot shows a blue background with a menu at the top: File Network User Settings About. The 'User' menu is open, showing options: Add, Remove, Edit. At the bottom, it says 'Add a user.'</p> <p>Figure 23. iLO Configuration - Select User - Add</p>

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

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

Prerequisites & Requirements:

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

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

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

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

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

Prerequisites & Requirements:

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

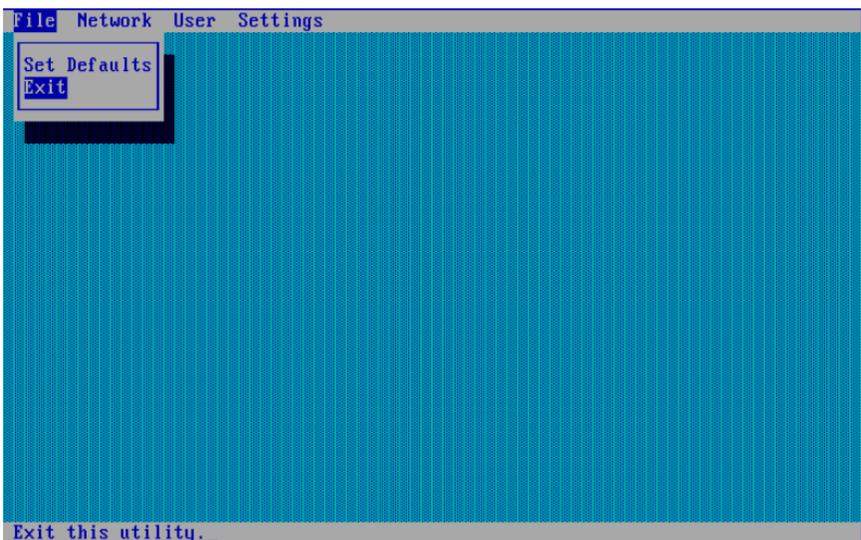
Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>Reboot the server. You will see an HP ProLiant screen as shown below. When prompted with the option to Press F9 for setup, do so. Once F9 is pressed, you should see "F9" selected on the screen as shown below:</p>	 <p>The image shows the HP ProLiant splash screen. At the top, it says 'HP ProLiant' with the HP logo. Below that, it lists system details: '2 Processor(s) detected, 16 total cores enabled, Hyperthreading is enabled', 'Proc 1: Intel(R) Xeon(R) CPU E5-2670 0 @ 2.60GHz', 'Proc 2: Intel(R) Xeon(R) CPU E5-2670 0 @ 2.60GHz', 'QPI Speed: 8.0 GT/s', 'HP Power Profile Mode: Balanced Power and Performance', and 'Power Regulator Mode: Dynamic Power Savings'. It also mentions 'Redundant ROM Detected - This system contains a valid backup System ROM.' and 'Inlet Ambient Temperature: 23C/73F'. Further down, it shows 'Advanced Memory Protection Mode: Advanced ECC Support' and 'HP SmartMemory authenticated in all populated DIMM slots.' The bottom section includes 'SATA Option ROM ver 2.00.C02', 'Copyright 1982, 2011. Hewlett-Packard Development Company, L.P.', 'iLO 4 Advanced', 'iLO 4 v1.05 Apr 19 2012 192.168.100.101', and 'Slot 0 HP Smart Array P420i Controller (1 GiB, v2.14) 1 Logical Drive'. At the bottom, there are three buttons: 'F9 Setup', 'F10 Intelligent Provisioning', and 'F11 Boot Menu'. On the right side, there is a grid of configuration options with checkboxes: 'Power Regulator' (checked), 'Smart Array' (checked), 'Smart Array Advanced' (unchecked), 'HP SmartMemory' (checked), 'Intelligent Provisioning' (checked), 'Dynamic Power Capping' (checked), 'See of Sensors 3D' (checked), 'iLO Management Engine' (checked), 'iLO Advanced' (checked), and 'Agentless Management' (checked).</p>
<p>2.</p>	<p>After the initial iLO configuration utility screen appears, use the arrow keys to select the Network menu</p>	 <p>The image shows the initial iLO Configuration Screen. It has a menu bar at the top with 'File', 'Network', 'User', and 'Settings'. Below the menu bar, there is a list of options: 'Set Defaults' and 'Exit'. The 'Exit' option is highlighted with a blue background. At the bottom of the screen, it says 'Exit this utility._'.</p>

Figure 24. RBSU - Enter RBSU - "F9 Pressed" indicated in HP Splash screen

Figure 25. iLO Configuration - Initial iLO Configuration Screen

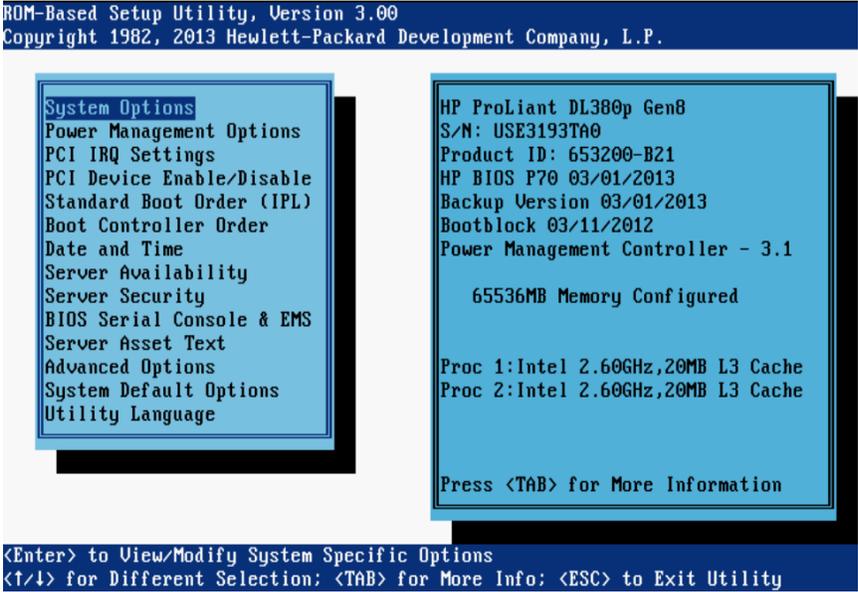
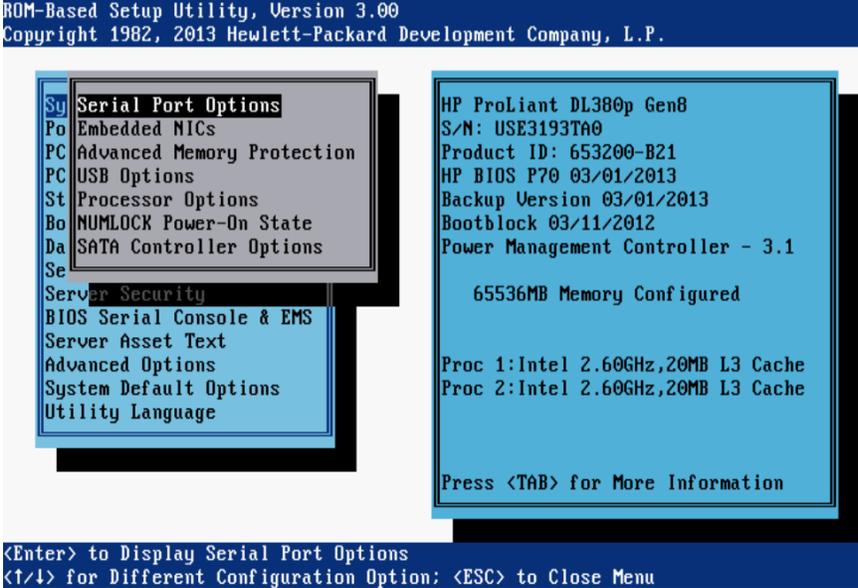
Procedure 14. Verify / Configure Serial Port Options

Procedure 14. Verify / Configure Serial Port Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU mode

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

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Select System Options, then Serial Port Options:</p>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Device Enable/Disable Standard Boot Order (IPL) Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1</p> <p>65536MB Memory Configured</p> <p>Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache</p> <p>Press <TAB> for More Information</p> <p><Enter> to View/Modify System Specific Options <↑/↓> for Different Selection; <TAB> for More Info; <ESC> to Exit Utility</p> <p>Figure 26. ROM-Based Setup Utility - initial screen</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>Serial Port Options Po Embedded NICs PC Advanced Memory Protection PC USB Options St Processor Options Bo NUMLOCK Power-On State Da SATA Controller Options Se Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1</p> <p>65536MB Memory Configured</p> <p>Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache</p> <p>Press <TAB> for More Information</p> <p><Enter> to Display Serial Port Options <↑/↓> for Different Configuration Option; <ESC> to Close Menu</p> <p>Figure 27. ROM-Based Setup Utility - Serial Port Options</p>

Procedure 14. Verify / Configure Serial Port Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU mode

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

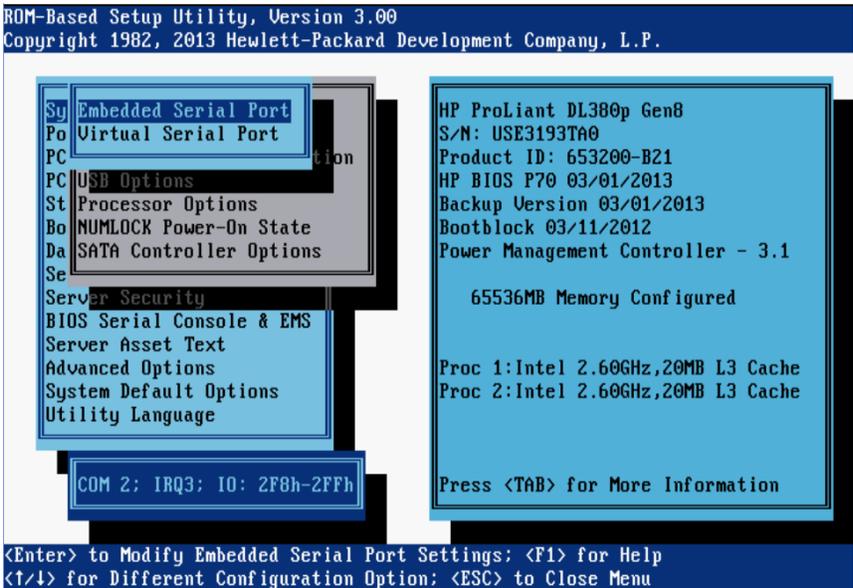
Step	Procedure	Result
2.	<p>Verify the settings for Embedded Serial Port:</p>	<p>Select “Embedded Serial Port” and verify it is set for “COM 2”. If it is not set to COM 2, press [ENTER], select COM 2, then [ENTER].</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>Embedded Serial Port Virtual Serial Port USB Options Processor Options NUMLOCK Power-On State SATA Controller Options Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>COM 2; IRQ3; IO: 2F8h-2FFh</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to Modify Embedded Serial Port Settings; <F1> for Help <↑/↓> for Different Configuration Option; <ESC> to Close Menu</p>

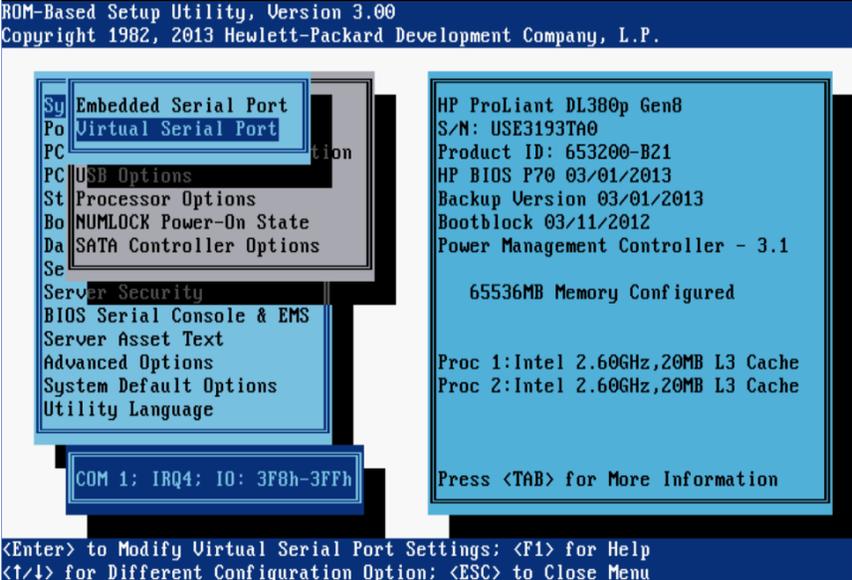
Figure 28. Verify Embedded Serial Port setting

Procedure 14. Verify / Configure Serial Port Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU mode

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

Step	Procedure	Result
3.	<p>Verify the settings for Virtual Serial Port:</p>	<p>Select “Virtual Serial Port” and verify it is set for COM 1. If it is not set to COM 1, press [ENTER], select COM 1, then [ENTER]</p> 

Procedure 15. Verify / Set Power Management

Procedure 15. Verify / Set Power Management

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

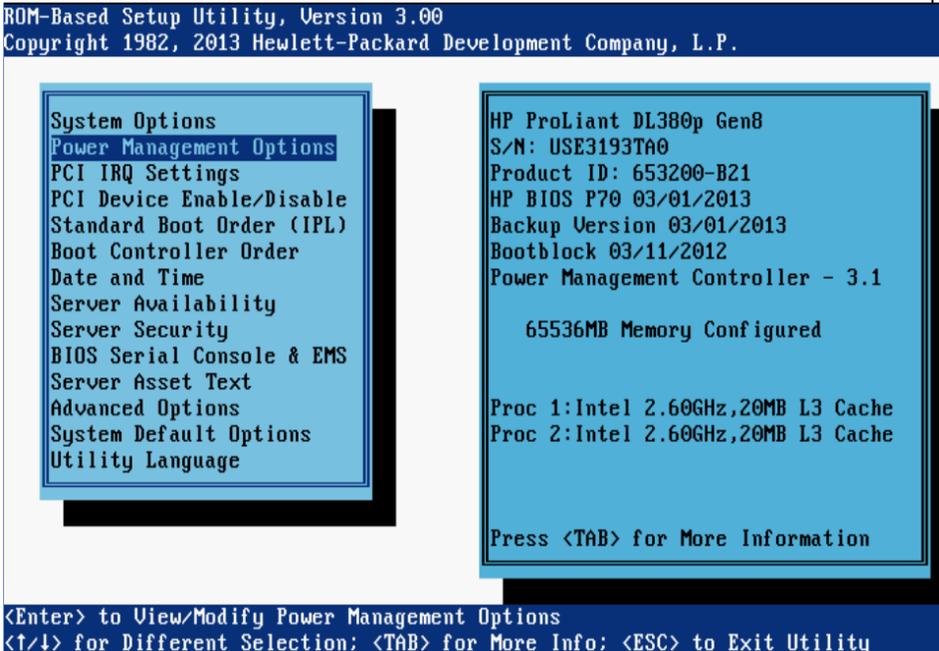
Step	Procedure	Result
------	-----------	--------

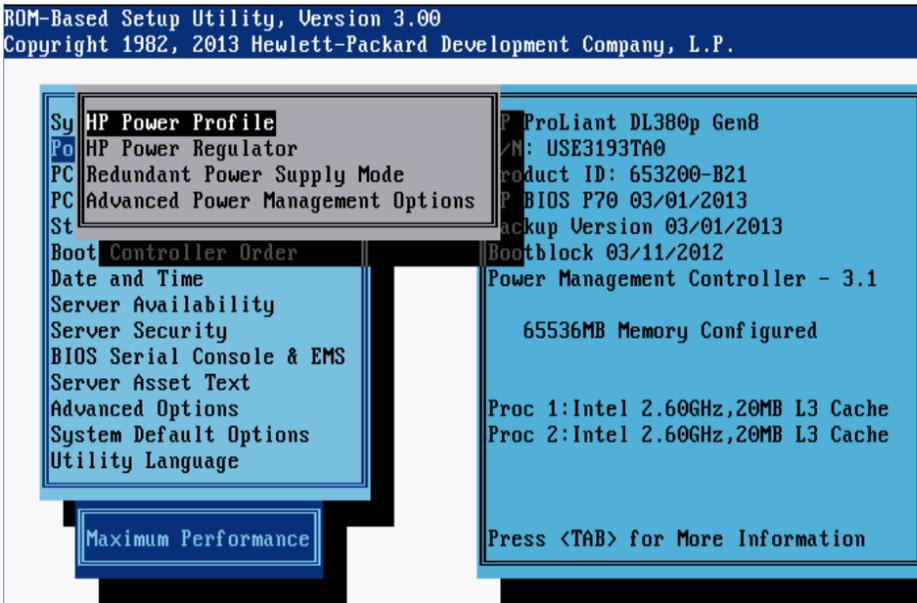
Procedure 15. Verify / Set Power Management

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>While in RBSU, verify or set the HP Power Profile</p>	<p>Select "Power Management Options", then press [ENTER].</p>  <p>Figure 29. RBSU - Select Power Management Options</p>

<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from such as:</p>	<p><i>HP Power Profile, HP Power Regulator, Redundant Power Supply Mode, Advanced Power Management.</i></p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>Sy HP Power Profile Po HP Power Regulator PC Redundant Power Supply Mode PC Advanced Power Management Options St Boo Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Maximum Performance</p> <p>ProLiant DL380p Gen8 /N: USE3193TA0 Product ID: 653200-B21 P BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information</p> <p><Enter> to Modify HP Power Profile Options; <F1> for Help <↑/↓> for Different Configuration Option; <ESC> to Close Menu</p> <p>Figure 30. RBSU - Select HP Power Profile and Maximum</p>
<p>3.</p>	<ul style="list-style-type: none"> • Select HP Power Profile • Verify it is set to Maximum Performance 	
<p>4.</p>	<p>If not set to Maximum Performance, press [ENTER] and select “Maximum Performance”, then press [ENTER]</p>	

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

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

Prerequisites & Requirements:

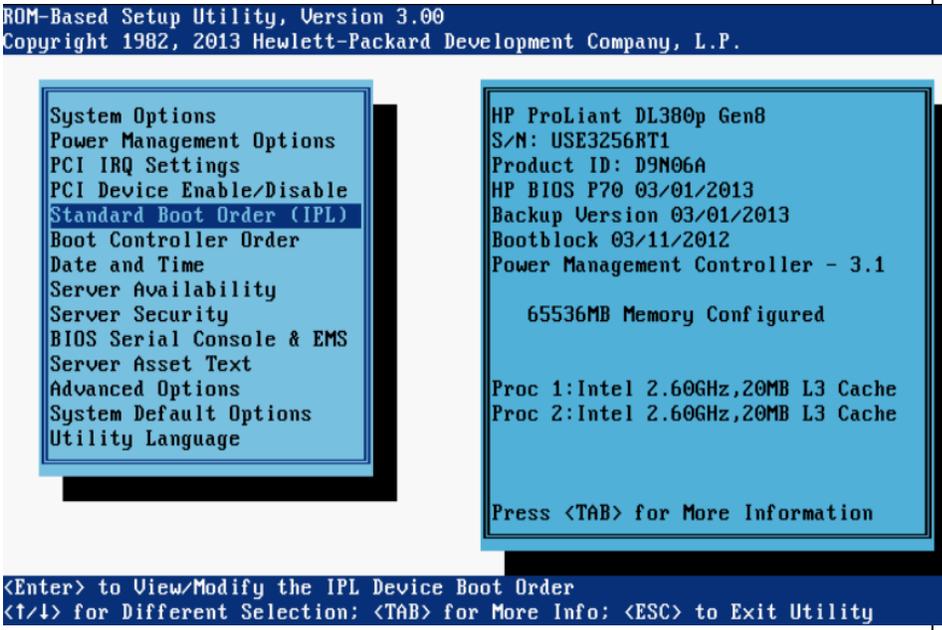
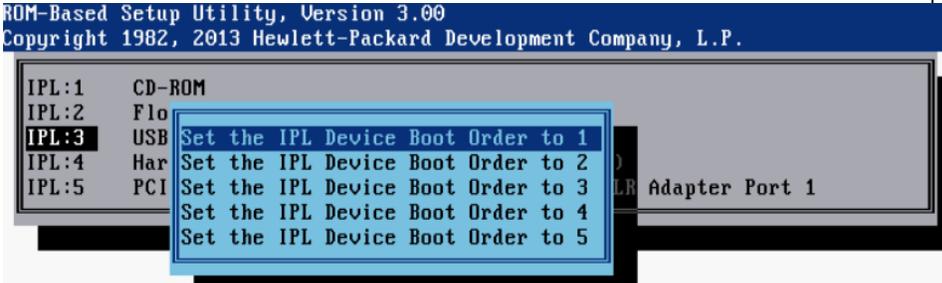
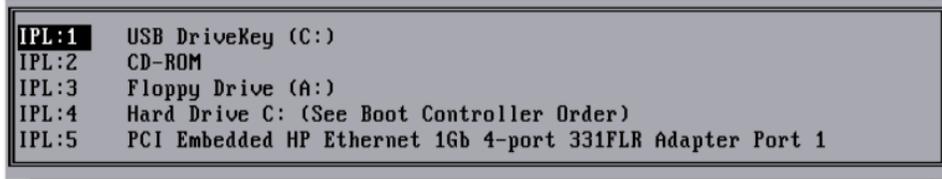
- ✓ Server rebooted and in RBSU

Step	Procedure	Result
------	-----------	--------

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

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

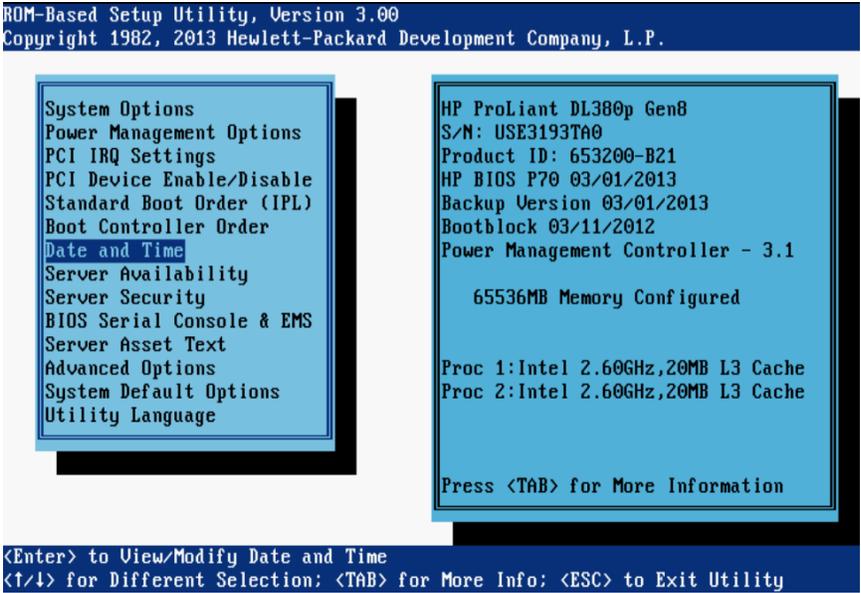
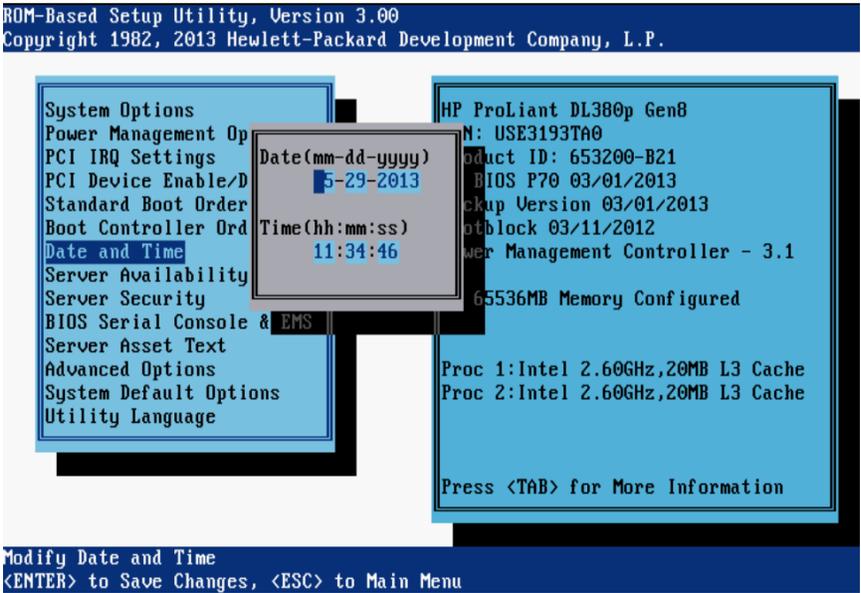
Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p>	<p>While in RBSU, verify or set the Standard Boot Order. Select Standard Boot Order, then press [ENTER]</p>	<p>Select "Power Management Options", then press [ENTER].</p>  <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <pre> System Options Power Management Options PCI IRQ Settings PCI Device Enable/Disable Standard Boot Order (IPL) Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language </pre> <pre> HP ProLiant DL380p Gen8 S/N: USE3256RT1 Product ID: D9N06A HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1 65536MB Memory Configured Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache Press <TAB> for More Information </pre> <p><Enter> to View/Modify the IPL Device Boot Order <↑/↓> for Different Selection; <TAB> for More Info; <ESC> to Exit Utility</p> <p>Figure 31. Select Standard Boot Order</p>
<p>2.</p>	<p>Verify that IPL:1 is USB DriveKey (C:). If IPL:1 is not USB DriveKey, then select USB DriveKey and press [ENTER], then select "Set the IPL Device Boot Order to 1" and press [ENTER]</p>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <pre> IPL:1 CD-ROM IPL:2 Flo IPL:3 USB Set the IPL Device Boot Order to 1 IPL:4 Har Set the IPL Device Boot Order to 2 IPL:5 PCI Set the IPL Device Boot Order to 3 Set the IPL Device Boot Order to 4 Set the IPL Device Boot Order to 5 </pre> <p>Figure 32. Select "Set the IP Device Boot Order to 1"</p>
<p>3.</p>	<p>Verify that IPL:1 is now USB DriveKey (C:)</p>	 <pre> IPL:1 USB DriveKey (C:) IPL:2 CD-ROM IPL:3 Floppy Drive (A:) IPL:4 Hard Drive C: (See Boot Controller Order) IPL:5 PCI Embedded HP Ethernet 1Gb 4-port 331FLR Adapter Port 1 </pre> <p>Figure 33. IPL:1 is now USB DriveKey (C:)</p>

Procedure 17. Verify / Set System Date and Time

Procedure 17. Verify / Set System Date and Time

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>While in RBSU, set the system Date and Time: Select "Date and Time", then press [ENTER]</p>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Device Enable/Disable Standard Boot Order (IPL) Boot Controller Order Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>HP ProLiant DL380p Gen8 S/N: USE3193TA0 Product ID: 653200-B21 HP BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1</p> <p>65536MB Memory Configured</p> <p>Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache</p> <p>Press <TAB> for More Information</p> <p><Enter> to View/Modify Date and Time <↑/↓> for Different Selection; <TAB> for More Info; <ESC> to Exit Utility</p> <p style="text-align: center;">Figure 34. Select Date and Time</p>
<p>2.</p>	<p>Set the current Date and Time. Use UTC for the time settings. Once the correct Date and Time has been set, press [ENTER] to confirm the settings.</p>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2013 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Op PCI IRQ Settings PCI Device Enable/D Standard Boot Order Boot Controller Ord Date and Time Server Availability Server Security BIOS Serial Console & EMS Server Asset Text Advanced Options System Default Options Utility Language</p> <p>Date(mm-dd-yyyy) 5-29-2013</p> <p>Time(hh:mm:ss) 11:34:46</p> <p>HP ProLiant DL380p Gen8 N: USE3193TA0 Product ID: 653200-B21 BIOS P70 03/01/2013 Backup Version 03/01/2013 Bootblock 03/11/2012 Power Management Controller - 3.1</p> <p>65536MB Memory Configured</p> <p>Proc 1: Intel 2.60GHz, 20MB L3 Cache Proc 2: Intel 2.60GHz, 20MB L3 Cache</p> <p>Press <TAB> for More Information</p> <p>Modify Date and Time <ENTER> to Save Changes, <ESC> to Main Menu</p> <p style="text-align: center;">Figure 35. Set Date and Time (UTC)</p>

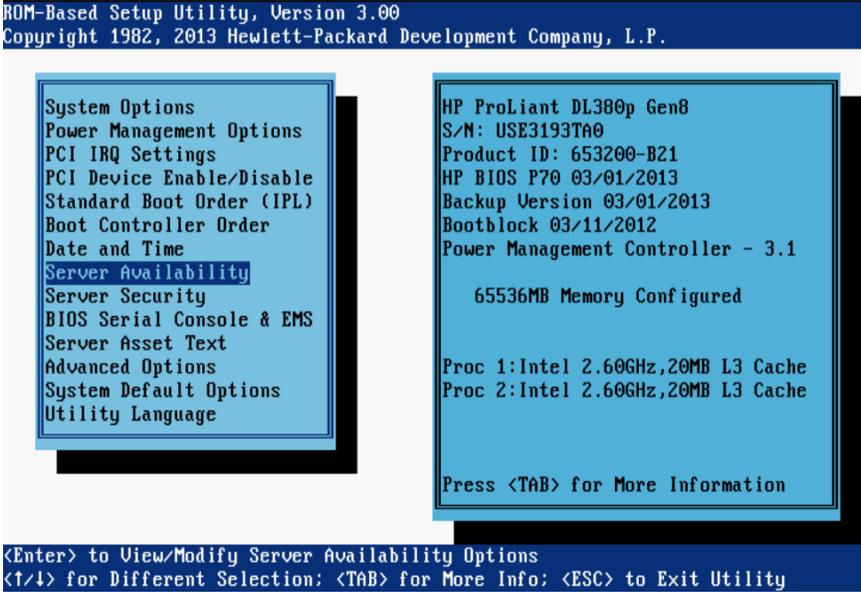
Procedure 18. Verify / Set Server Availability

Procedure 18. Verify / Set Server Availability

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

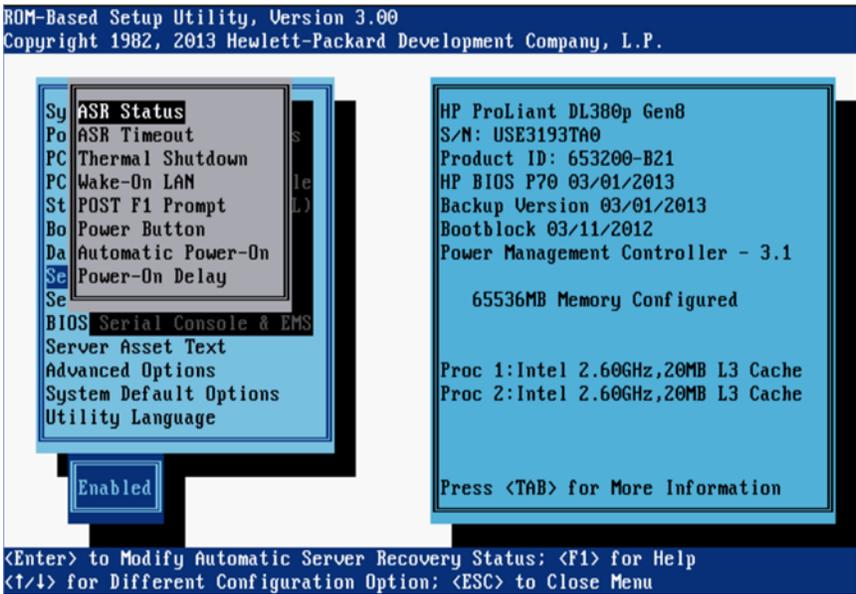
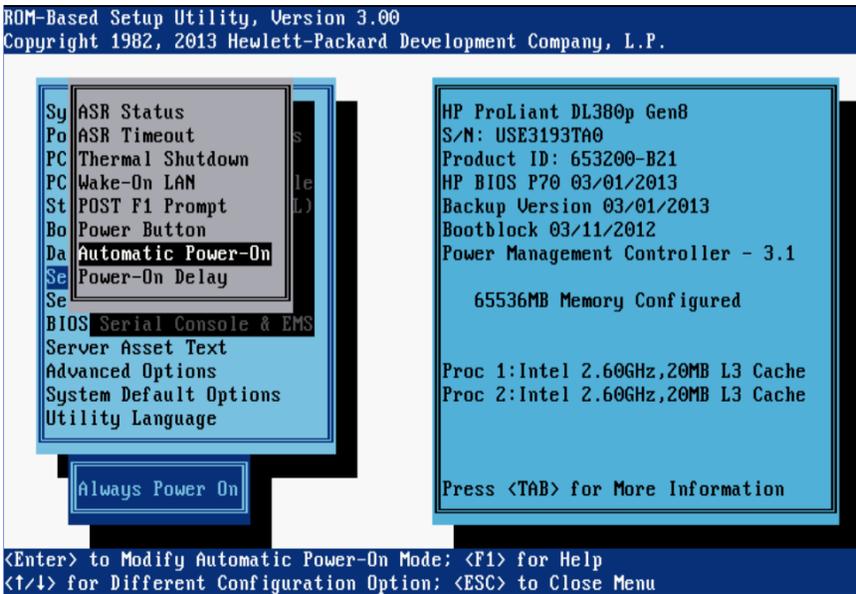
Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p>	<p>While in RBSU, set the Server Availability:</p> <p>Select "Server Availability", then press [ENTER]</p>	 <p style="text-align: center;">Figure 36. RBSU - Select Server Availability</p>
<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from including</p> <p><i>ASR Status, ASR Timeout, Thermal Shutdown, Wake-On LAN, POST F1 Prompt, Power Button, Automatic Power-On and Power-On Delay.</i></p>	
<p>3.</p>	<ul style="list-style-type: none"> ✓ Select ASR Status. ✓ Verify it is set to Enabled. 	

Procedure 18. Verify / Set Server Availability

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

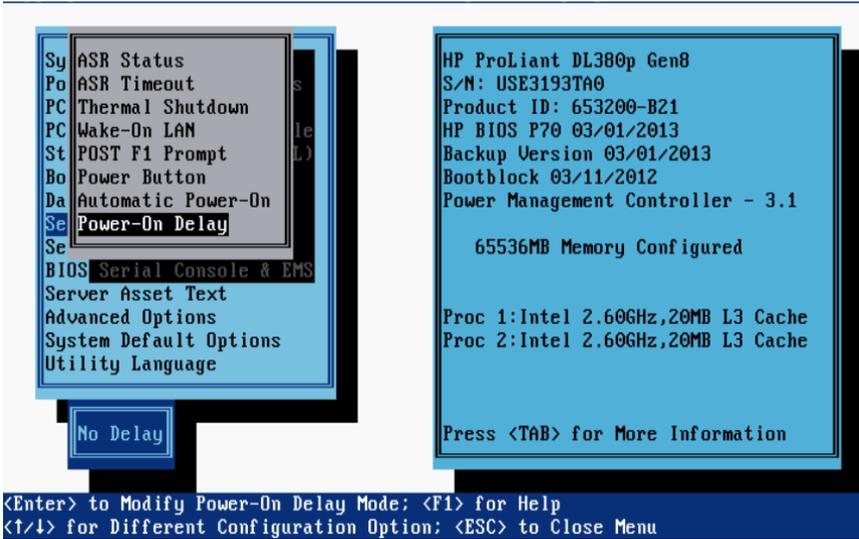
Step	Procedure	Result
4.	If not set to Enabled , press [ENTER] and select " Enabled ", then press [ENTER]	 <p>The screenshot shows the ROM-Based Setup Utility, Version 3.00. The left pane lists configuration options, with 'ASR Status' highlighted and 'Enabled' selected. The right pane displays system information for an HP ProLiant DL380p Gen8 server, including S/N, Product ID, BIOS version, and memory configuration. Navigation instructions are at the bottom.</p> <p style="text-align: center;">Figure 37. RBSU - Verify ASR Status is set to Enabled</p>
5.	Select Automatic Power-On	 <p>The screenshot shows the ROM-Based Setup Utility, Version 3.00. The left pane lists configuration options, with 'Automatic Power-On' highlighted and 'Always Power On' selected. The right pane displays system information for an HP ProLiant DL380p Gen8 server. Navigation instructions are at the bottom.</p> <p style="text-align: center;">Figure 38. RBSU - Verify Automatic Power-On is set to Enabled</p>

Procedure 18. Verify / Set Server Availability

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

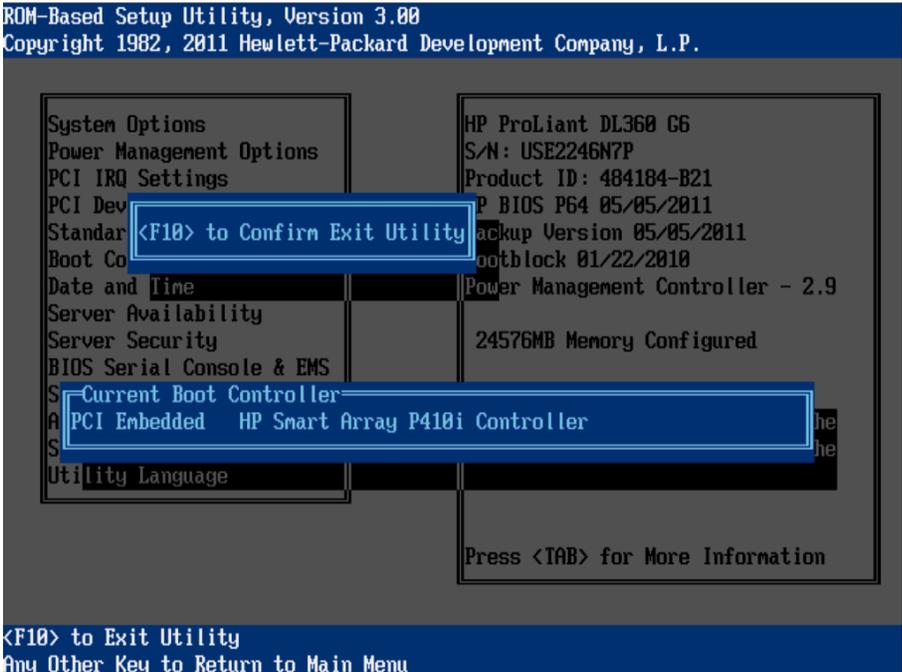
Step	Procedure	Result
6.	Verify Automatic Power-On is set to Always Power On	
7.	If not set to Enabled , press [ENTER] and select “ Enabled ”, then press [ENTER]	
8.	Select Power-On Delay	 <p>Figure 39. RBSU - Verify Power-On Delay is set to No Delay</p>
9.	Verify Power-On Delay is set to No Delay	
10.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

Procedure 19. Exit the RBSU

Procedure 19. Exit the RBSU

Prerequisites & Requirements:

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

Step	Procedure	Result
<p>11.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>While in RBSU, set the Server Availability:</p> <p>Select "Server Availability", then press [ENTER]</p>	 <p>ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2011 Hewlett-Packard Development Company, L.P.</p> <p>System Options Power Management Options PCI IRQ Settings PCI Dev Standard <F10> to Confirm Exit Utility Boot Co Date and Time Server Availability Server Security BIOS Serial Console & EMS S Current Boot Controller A PCI Embedded HP Smart Array P410i Controller S Utility Language</p> <p>HP ProLiant DL360 G6 S/N: USE2246N7P Product ID: 484184-B21 P BIOS P64 05/05/2011 Backup Version 05/05/2011 Bootblock 01/22/2010 Power Management Controller - 2.9 24576MB Memory Configured</p> <p>Press <TAB> for More Information</p> <p><F10> to Exit Utility Any Other Key to Return to Main Menu</p> <p>Figure 40. RBSU - Exit ROM-Based Setup Utility</p>
<p>12.</p>	<p>Expected Results:</p> <p>The BIOS for the server is successfully configured, memory and processors are verified.</p>	

K.2 GEN9: RMS CONFIGURE ILO

K.2.1 RMS: Configure Ilo

Procedure 20. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Procedure 20. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Prerequisites & Requirements:

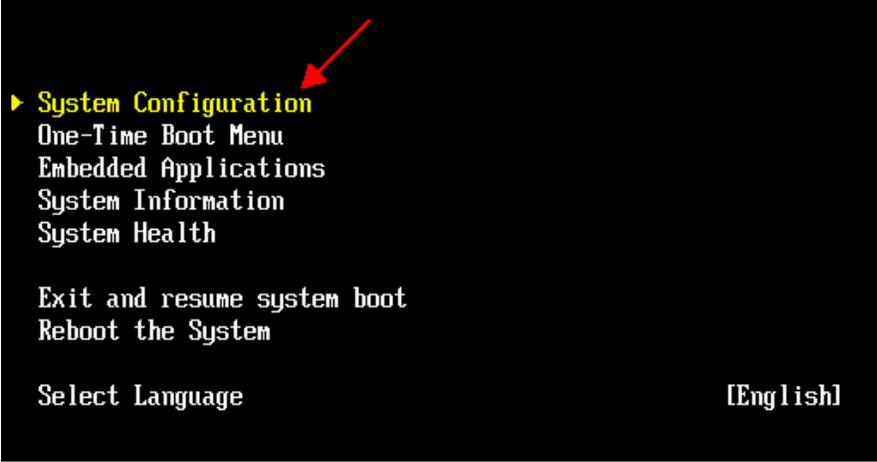
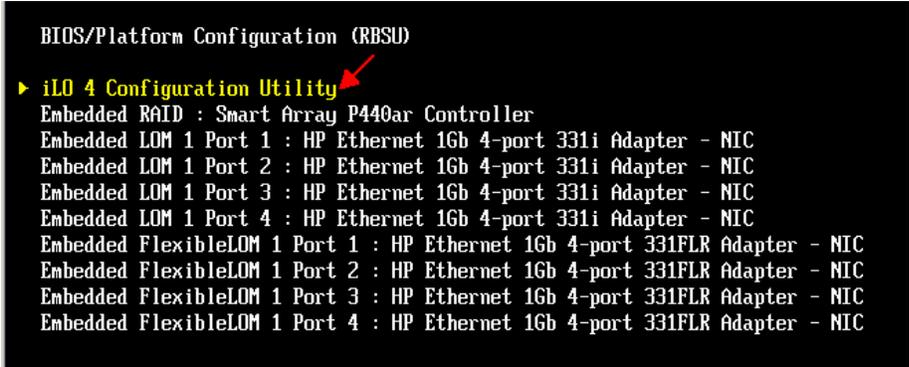
- ✓ Server powered on
- ✓ Server booting up or rebooted

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Reboot the server. You will see an HP screen as shown below. When prompted with the option to Press F9 for System Utilities, do so. Once F9 is pressed, you should see “F9” selected on the screen as shown below:</p>	 <p style="text-align: center;">Figure 41. Gen9: iLO Configuration - GEN9: Press [F9] to configure</p>

Procedure 20. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Prerequisites & Requirements:

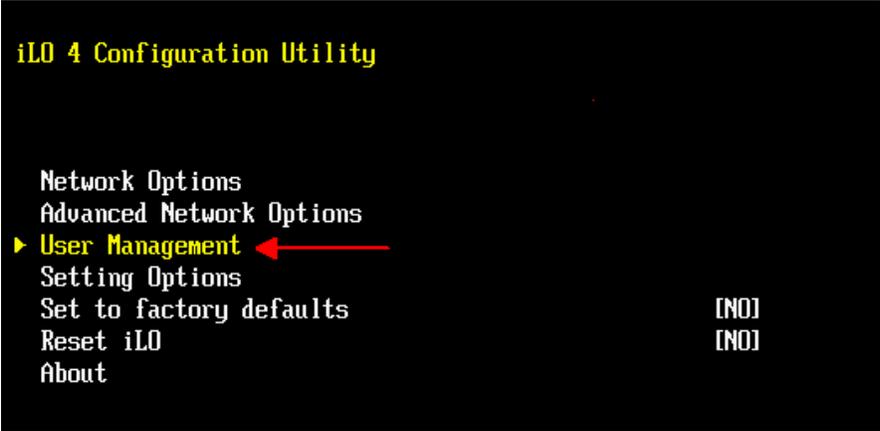
- ✓ Server powered on
- ✓ Server booting up or rebooted

Step	Procedure	Result
2.	After F9 is pressed select System Configuration then select iLO 4 Configuration Utility	 <p style="text-align: center;">Figure 42. Gen9: iLO4: Select System Configuration</p>  <p style="text-align: center;">Figure 43. Gen9: iLO: Select iLO4 Configuration Utility</p>

Procedure 20. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Prerequisites & Requirements:

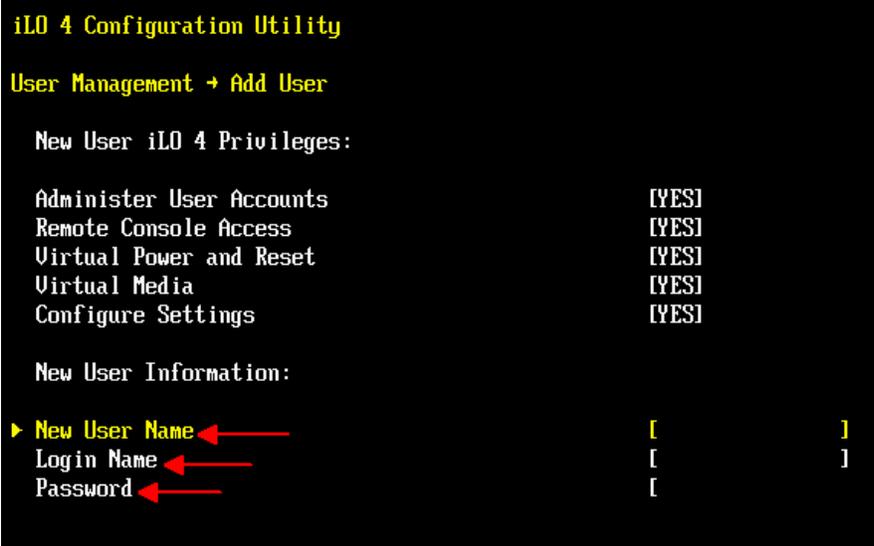
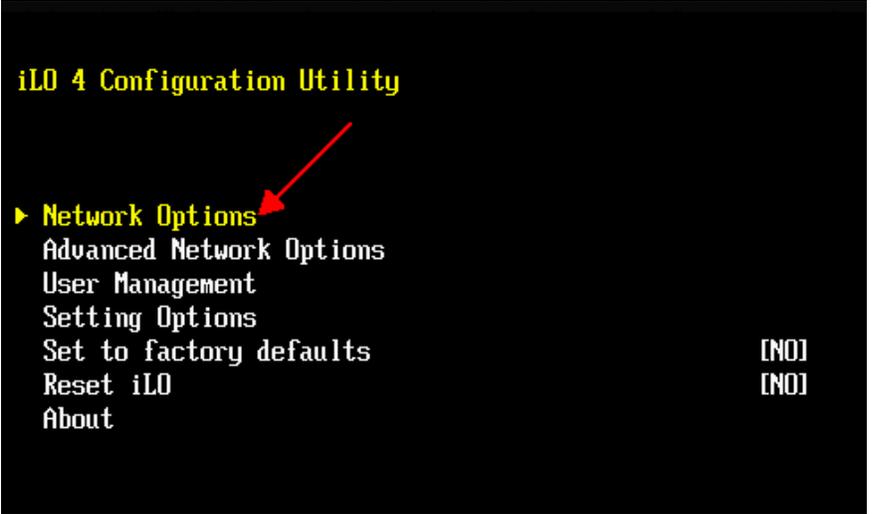
- ✓ Server powered on
- ✓ Server booting up or rebooted

Step	Procedure	Result
3.	After the initial iLO Configuration Utility screen appears, select User Management	 <p>The screenshot shows the 'iLO 4 Configuration Utility' menu. The options listed are: Network Options, Advanced Network Options, User Management (highlighted with a red arrow), Setting Options, Set to factory defaults (with [NO] to its right), Reset iLO (with [NO] to its right), and About.</p> <p>Figure 44. Gen9: iLO Configuration - User Management</p>
4.	Select Add User press [ENTER] to add the admusr user.	 <p>The screenshot shows the 'System Configuration' screen with the 'iLO 4 Configuration Utility' menu. The 'User Management' option is selected, and the sub-menu shows 'Add User' (highlighted with a red arrow) and 'Edit/Remove User'.</p> <p>Figure 45. Gen9: iLO Configuration - Add User</p>

Procedure 20. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Prerequisites & Requirements:

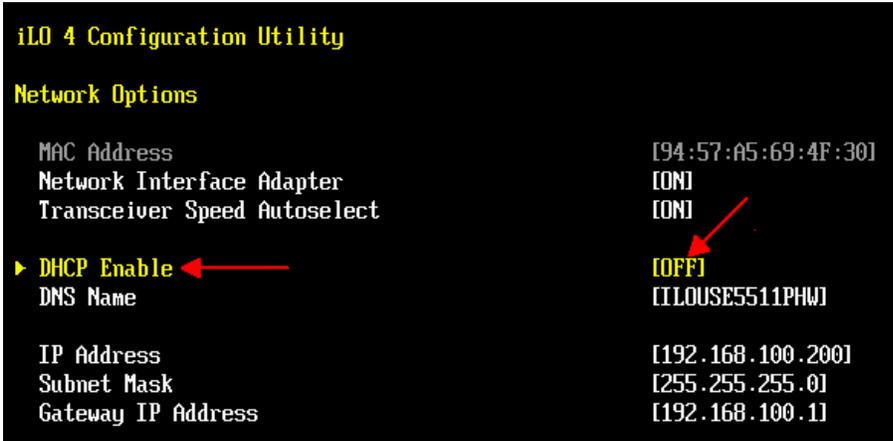
- ✓ Server powered on
- ✓ Server booting up or rebooted

Step	Procedure	Result										
5.	<p>Enter the New User Name, Login Name and Password information for tekelec:</p> <p>New User Name: tekelec</p> <p>Login Name: tekelec</p> <p>Password: tekelec1</p>	 <p>iLO 4 Configuration Utility</p> <p>User Management → Add User</p> <p>New User iLO 4 Privileges:</p> <table border="0"> <tr><td>Administer User Accounts</td><td>[YES]</td></tr> <tr><td>Remote Console Access</td><td>[YES]</td></tr> <tr><td>Virtual Power and Reset</td><td>[YES]</td></tr> <tr><td>Virtual Media</td><td>[YES]</td></tr> <tr><td>Configure Settings</td><td>[YES]</td></tr> </table> <p>New User Information:</p> <p>► New User Name ← []</p> <p>Login Name ← []</p> <p>Password ← []</p> <p>Figure 46. Gen9: iLO Configuration - Add New User Name: tekelec</p>	Administer User Accounts	[YES]	Remote Console Access	[YES]	Virtual Power and Reset	[YES]	Virtual Media	[YES]	Configure Settings	[YES]
Administer User Accounts	[YES]											
Remote Console Access	[YES]											
Virtual Power and Reset	[YES]											
Virtual Media	[YES]											
Configure Settings	[YES]											
6.	<p>Press [ESC] to go back to the iLO 4 Configuration Utility menu, then select Network Options.</p>	 <p>iLO 4 Configuration Utility</p> <p>► Network Options</p> <p>Advanced Network Options</p> <p>User Management</p> <p>Setting Options</p> <p>Set to factory defaults [NO]</p> <p>Reset iLO [NO]</p> <p>About</p> <p>Figure 47. Gen9: iLO Configuration - select Network Options</p>										

Procedure 20. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Prerequisites & Requirements:

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

Step	Procedure	Result
7.	<p>Within the Network menu verify that DHCP Enable is set to [OFF]. IF not set to [OFF], press [ENTER] and arrow down to select [OFF] then press [ENTER].</p>	 <pre> iLO 4 Configuration Utility Network Options MAC Address [94:57:A5:69:4F:30] Network Interface Adapter [ON] Transceiver Speed Autoselect [ON] ▶ DHCP Enable ← [OFF] DNS Name [ILOUSE5511PHW] IP Address [192.168.100.200] Subnet Mask [255.255.255.0] Gateway IP Address [192.168.100.1] </pre> <p>Figure 48. Gen9: iLO Configuration - DHCP Enable to OFF</p>

Procedure 20. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Prerequisites & Requirements:

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

Step	Procedure	Result
------	-----------	--------

8. Use the arrow keys to move up/down to set the **IP Address, Subnet Mask** and **Gateway IP Address** for the server.

IP Address: Refer to below table for the correct IP address

Default IP Addressing For RMS	
Use the following IP addresses for iLO for ship loose servers	
RMS	iLO IP Address
Server-A	192.168.100.200
Server-B	192.168.100.201
Server-C	192.168.100.202
Server-D	192.168.100.203
Server-E	192.168.100.204
Server-F	192.168.100.205
Server-G	192.168.100.206
Server-H	192.168.100.207
Server-I	192.168.100.208
Server-J	192.168.100.209
Server-K	192.168.100.210
Server-L	192.168.100.211
Server-M	192.168.100.212
Server-N	192.168.100.213
Server-O	192.168.100.214
Server-P	192.168.100.215
Server-Q	192.168.100.216
Server-R	192.168.100.217
Server-S	192.168.100.218
Server-T	192.168.100.219
Server-U	192.168.100.220
Server-V	192.168.100.221
Server-W	192.168.100.222
Server-X	192.168.100.223
Server-Y	192.168.100.224
Server-Z	192.168.100.225

Subnet Mask: **255.255.255.0**
 Gateway IP Address: **192.168.100.1**

SDS-7.1/7.2/7.3

```

iLO 4 Configuration Utility

Network Options

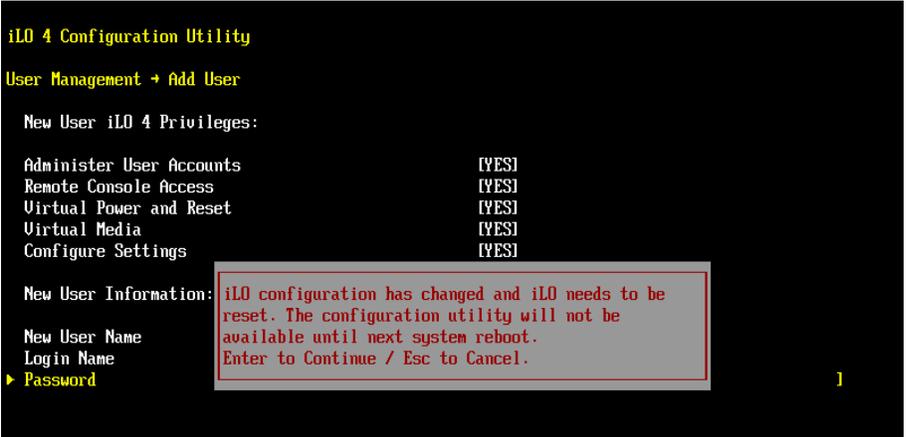
MAC Address [94:57:A5:69:4F:30]
Network Interface Adapter [ON]
Transceiver Speed Autoselect [ON]

DHCP Enable [OFF]
    
```

Procedure 20. Gen9: Configure Integrated Lights Out (iLO) for Rack Mount Servers (RMS)

Prerequisites & Requirements:

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

Step	Procedure	Result
<p>9.</p>	<p>Press [F10] to save all changes, ENTER "Y" to confirm then exit out and reboot the server</p>	 <p>iLO 4 Configuration Utility</p> <p>Network Options</p> <p>▶ MAC Address [94:57:A5:69:3F:DE]</p> <p>Network Interface Adapter [ON]</p> <p>Transceiver Speed Autoselect [ON]</p> <p>DHCP Enable [OFF]</p> <p>DNS Name [ILOUSE5511PHX]</p> <p>IP Address</p> <p>Subnet Mask</p> <p>Gateway IP Address</p> <p>Changes are pending. Do you want to save changes and exit? Press 'Y' to save and exit, 'N' to discard and exit, 'ESC' to cancel.</p> <p>Figure 50. Gen9: iLO Configuration - F10 Save Changes</p>  <p>iLO 4 Configuration Utility</p> <p>User Management → Add User</p> <p>New User iLO 4 Privileges:</p> <p>Administer User Accounts [YES]</p> <p>Remote Console Access [YES]</p> <p>Virtual Power and Reset [YES]</p> <p>Virtual Media [YES]</p> <p>Configure Settings [YES]</p> <p>New User Information:</p> <p>New User Name</p> <p>Login Name</p> <p>▶ Password</p> <p>iLO configuration has changed and iLO needs to be reset. The configuration utility will not be available until next system reboot. Enter to Continue / Esc to Cancel.</p> <p>Figure 51. Gen9: iLO Configuration - Change Reboot Message</p>
<p>10.</p>	<p>Repeat this procedure for other ship loose servers for the work order.</p>	

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

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

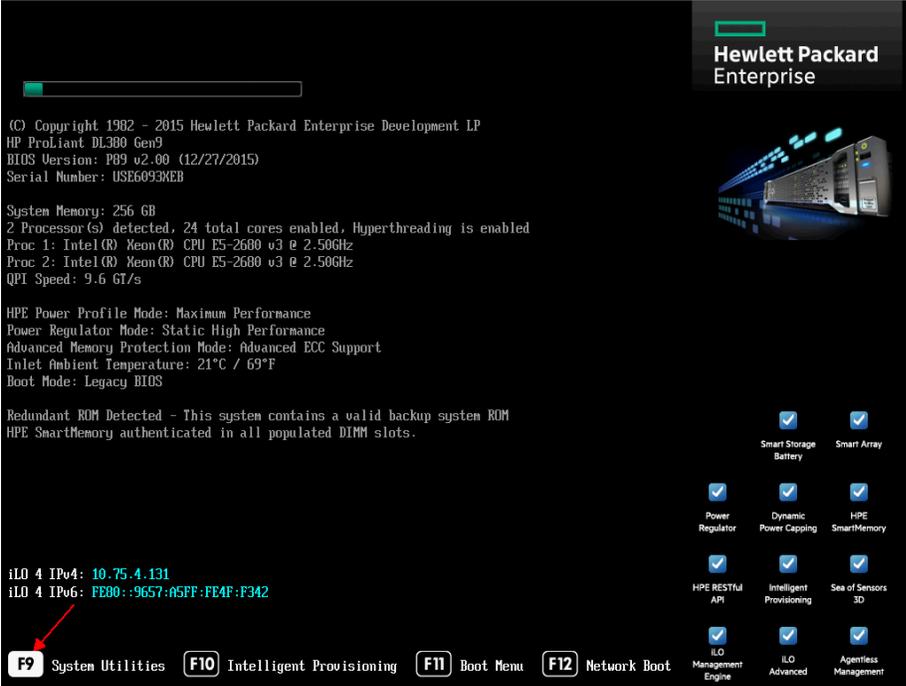
Verify / Configure BIOS settings and verify configured memory

Procedure 21. Gen9: Enter the ROM-Based Setup Utility (RBSU)

Procedure 21. Gen9: Enter the ROM-Based Setup Utility (RBSU)

Prerequisites & Requirements:

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

Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 10px;"></div>	<p>Reboot the server. You will see an HP screen as shown below. When prompted with the option to Press F9 for System Utilities, do so. Once F9 is pressed, you should see "F9" selected on the screen as shown below:</p>	 <p style="text-align: center;">Figure 52. Gen9 RBSU - Enter RBSU - "F9 Pressed" indicated in HP Splash screen</p>

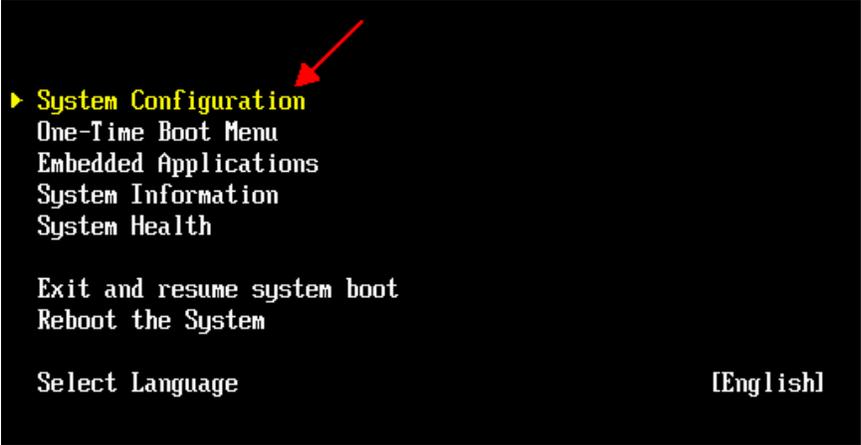
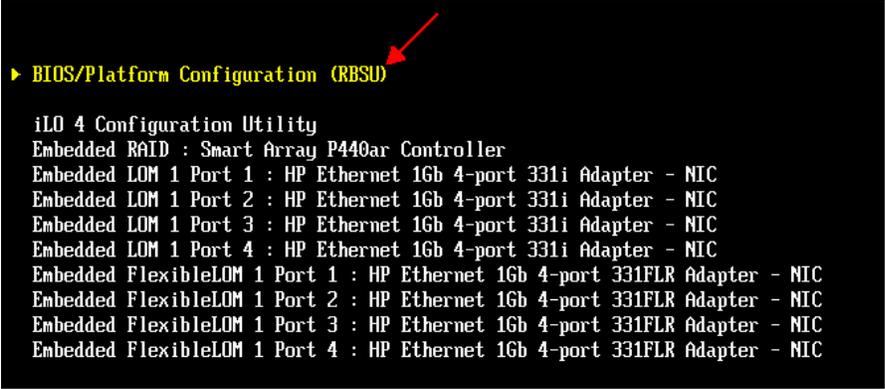
Procedure 22. Gen9: Verify / Configure Serial Port Options

Procedure 22. Gen9: Verify / Configure Serial Port Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU mode

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

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

Procedure 22. Gen9: Verify / Configure Serial Port Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU mode

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

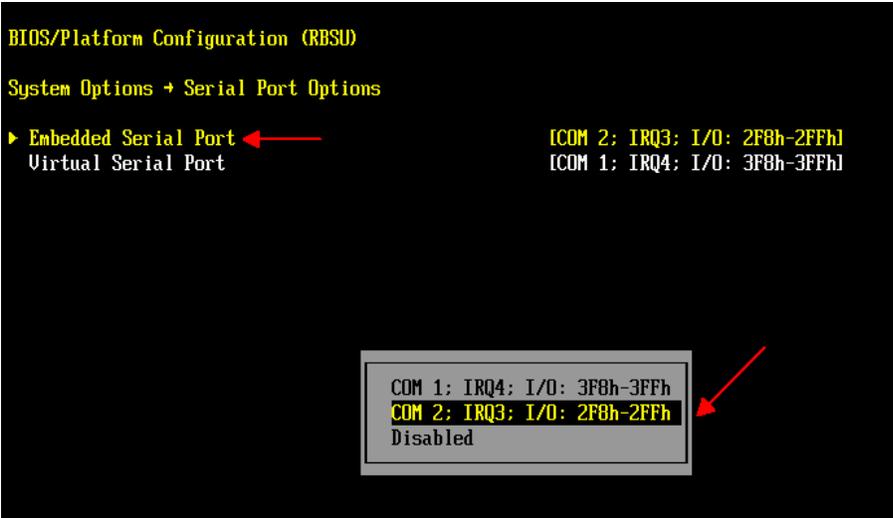
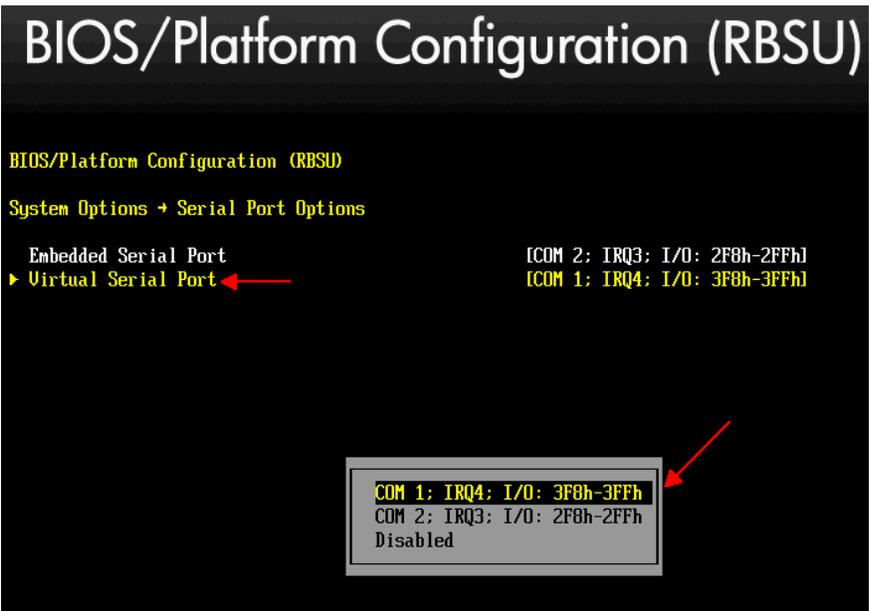
Step	Procedure	Result
2.	Select System Options then select Serial Port Options	<div style="border: 1px solid black; background-color: black; color: yellow; padding: 10px;"> <p>BIOS/Platform Configuration (RBSU)</p> <ul style="list-style-type: none"> ▶ System Options Boot Options Network Options Storage Options Embedded UEFI Shell Power Management Performance Options Server Security PCI Device Enable/Disable Server Availability BIOS Serial Console and EMS Server Asset Information Advanced Options <p>Date and Time</p> <p>System Default Options</p> </div> <p style="text-align: center;">Figure 55. Gen9: ROM-Based Setup Utility - System Options</p> <div style="border: 1px solid black; background-color: black; color: yellow; padding: 10px;"> <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options</p> <ul style="list-style-type: none"> ▶ Serial Port Options USB Options Processor Options SATA Controller Options Virtualization Options Boot Time Optimizations Memory Operations </div> <p style="text-align: center;">Figure 56. Gen9: ROM-Based Setup Utility - Serial Port Options</p>

Procedure 22. Gen9: Verify / Configure Serial Port Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU mode

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

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

Procedure 23. Gen9: Verify / Set Power Management

Procedure 23. Gen9: Verify / Set Power Management

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

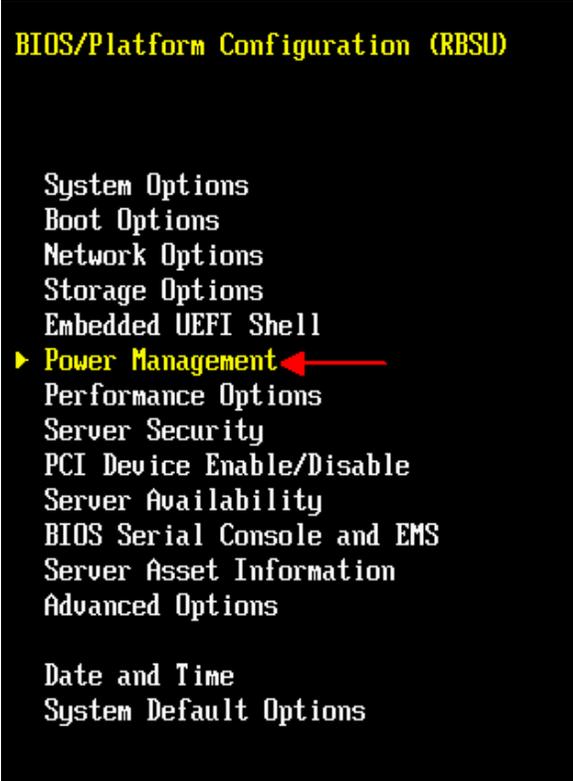
Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>While in RBSU, verify/set the HP Power Profile:</p> <p>Select “Power Management”, then press [ENTER]</p>	 <p>The screenshot shows the RBSU BIOS/Platform Configuration menu. The title is 'BIOS/Platform Configuration (RBSU)'. The menu items are: System Options, Boot Options, Network Options, Storage Options, Embedded UEFI Shell, Power Management (highlighted with a yellow arrow and a red arrow pointing to it), Performance Options, Server Security, PCI Device Enable/Disable, Server Availability, BIOS Serial Console and EMS, Server Asset Information, Advanced Options, Date and Time, and System Default Options.</p>

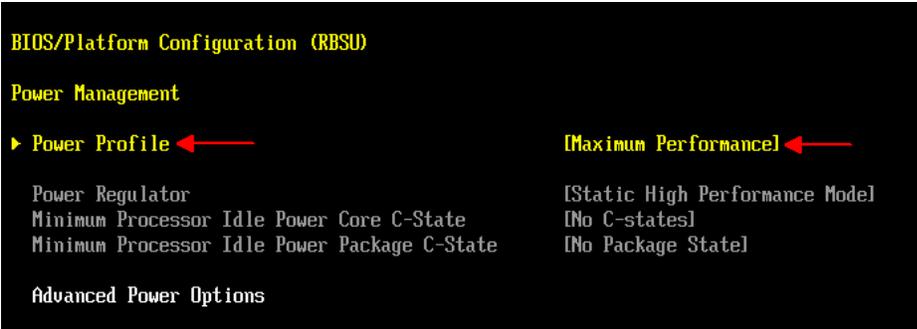
Figure 59. Gen9: RBSU - Select Power Management

Procedure 23. Gen9: Verify / Set Power Management

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

Step	Procedure	Result
2.	<p>After pressing [ENTER] you will see several options to choose from such as:</p> <p><i>Power Profile, Power Regulator, Minimum Processor Idle Power Core C-State, Minimum Processor Idle Power Package C-State and Advanced Power Options.</i></p>	 <p>Figure 60. Gen9: RBSU - Select HP Power Profile and MaximumPerformance</p>
3.	<ul style="list-style-type: none"> • Select Power Profile. • Verify it is set to Maximum Performance 	
4.	<p>If not set to Maximum Performance, press [ENTER] and select “Maximum Performance”, then press [ENTER]</p>	

Procedure 24. Gen9: Verify / Set Standard Boot Order (IPL)

Procedure 24. Gen9: Verify / Set Standard Boot Order (IPL)

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

Step	Procedure	Result

Procedure 24. Gen9: Verify / Set Standard Boot Order (IPL)

Prerequisites & Requirements:

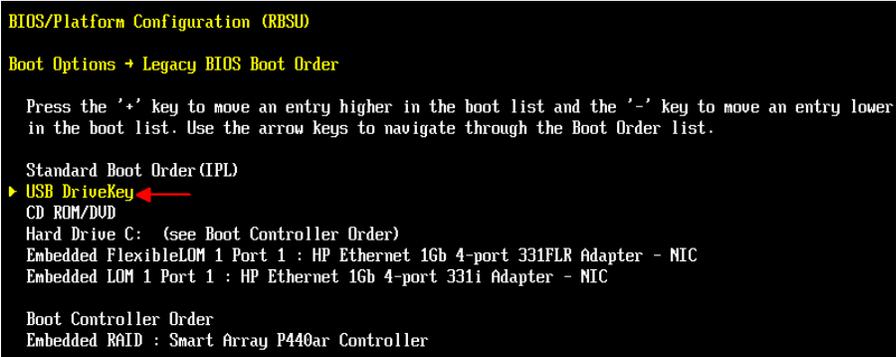
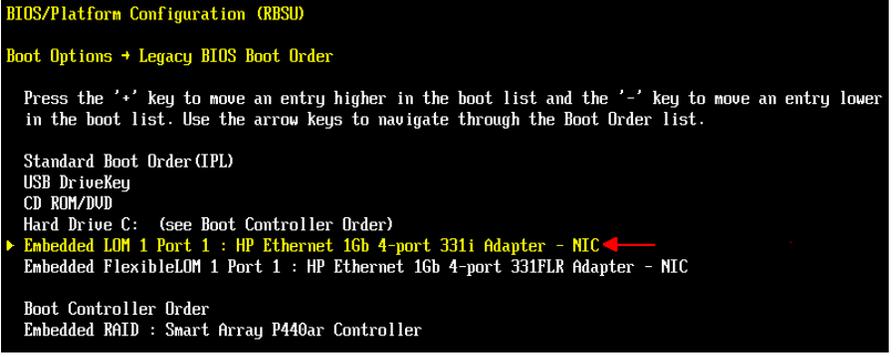
- ✓ Server rebooted and in RBSU

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

Procedure 24. Gen9: Verify / Set Standard Boot Order (IPL)

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

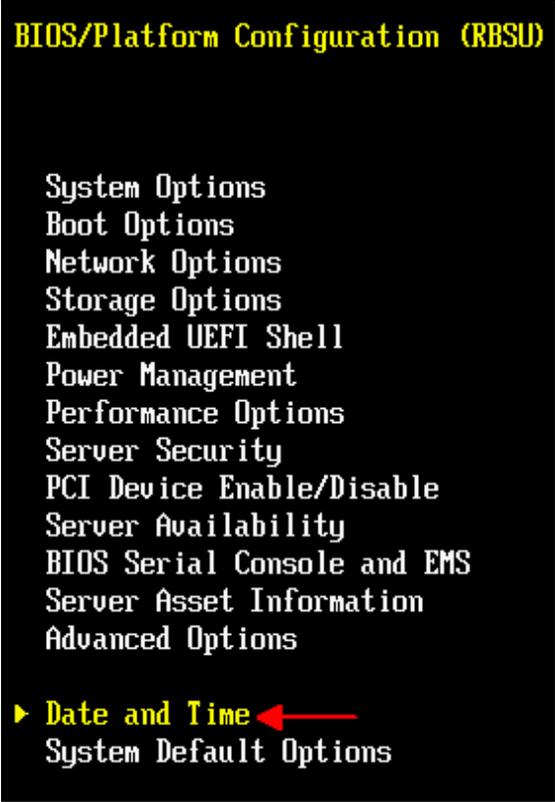
Step	Procedure	Result
2.	<p>Verify under Standard Boot Order (IPL) that USB DriveKey is in the first position and Embedded LOM is in the fourth position. Press “+” or “-” to maneuver to the correct position.</p>	<p>Legacy BIOS Boot Order: USB DriveKey CD ROM/DVD Hard Drive C Embedded LOM 1 Port 1 Embedded FlexibleLOM 1 Port 1</p>  <p>BIOS/Platform Configuration (RBSU) Boot Options + Legacy BIOS Boot Order</p> <p>Press the '+' key to move an entry higher in the boot list and the '-' key to move an entry lower in the boot list. Use the arrow keys to navigate through the Boot Order list.</p> <p>Standard Boot Order (IPL) ▶ USB DriveKey ← CD ROM/DVD Hard Drive C: (see Boot Controller Order) Embedded FlexibleLOM 1 Port 1 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC Embedded LOM 1 Port 1 : HP Ethernet 1Gb 4-port 331i Adapter - NIC</p> <p>Boot Controller Order Embedded RAID : Smart Array P440ar Controller</p> <p>Figure 63. Select “Set the IP Device Boot Order USB DriveKey”</p>  <p>BIOS/Platform Configuration (RBSU) Boot Options + Legacy BIOS Boot Order</p> <p>Press the '+' key to move an entry higher in the boot list and the '-' key to move an entry lower in the boot list. Use the arrow keys to navigate through the Boot Order list.</p> <p>Standard Boot Order (IPL) USB DriveKey CD ROM/DVD Hard Drive C: (see Boot Controller Order) ▶ Embedded LOM 1 Port 1 : HP Ethernet 1Gb 4-port 331i Adapter - NIC ← Embedded FlexibleLOM 1 Port 1 : HP Ethernet 1Gb 4-port 331FLR Adapter - NIC</p> <p>Boot Controller Order Embedded RAID : Smart Array P440ar Controller</p> <p>Figure 64. Select “Set the IP Device Boot Order Embedded LOM 1 Port 1”</p>

Procedure 25. Gen9: Verify / Set system Date and Time

Procedure 25. Gen9: Verify / Set system Date and Time

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

Step	Procedure	Result
<p>1.</p> <p><input type="checkbox"/></p>	<p>While in RBSU, set the system Date and Time: Select “Date and Time”, then press [ENTER]</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <p>System Options Boot Options Network Options Storage Options Embedded UEFI Shell Power Management Performance Options Server Security PCI Device Enable/Disable Server Availability BIOS Serial Console and EMS Server Asset Information Advanced Options</p> <p>▶ Date and Time ← System Default Options</p> <p>Figure 65. Gen9: Select Date and Time</p>
<p>2.</p>	<p>Set the current Date and Time. Use UTC for the time settings. Once the correct Date and Time has been set, press [ENTER] to confirm the settings.</p>	 <p>BIOS/Platform Configuration (RBSU)</p> <p>Date and Time</p> <p>▶ Date (mm-dd-yyyy) ← [01/29/2016] Time (hh:mm:ss) ← [14:37:27] Time Zone [UTC-00:00, Greenwich Mean Time, Dublin, London] Daylight Savings Time [Disabled] Time Format ← [Coordinated Universal Time (UTC)]</p> <p>Figure 66. Gen9: Set Date and Time (UTC)</p>

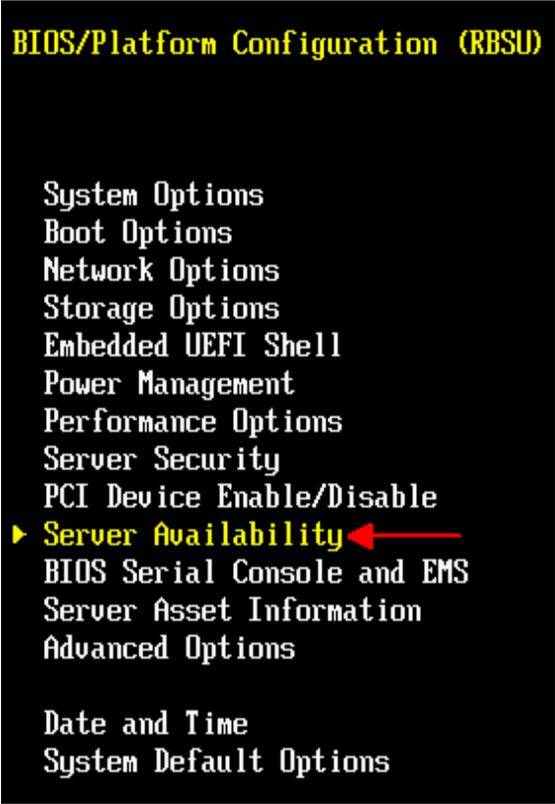
Procedure 26. Gen9: Verify / Set Server Availability

Procedure 26. Gen9: Verify / Set Server Availability

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

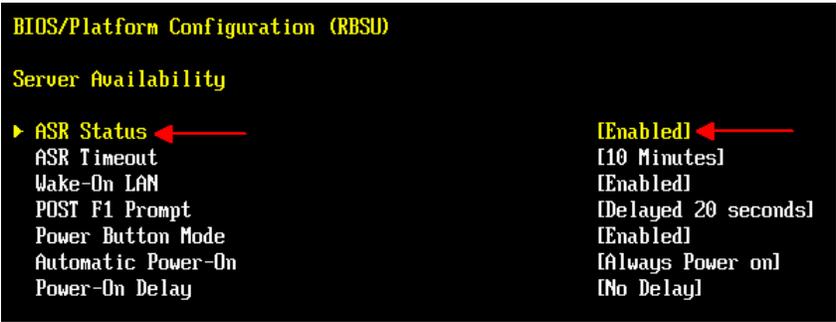
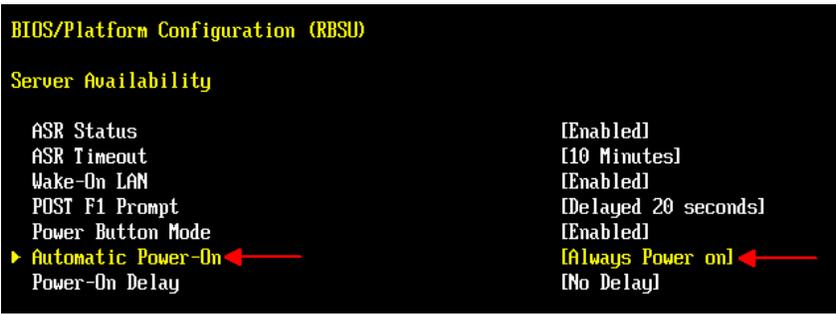
Step	Procedure	Result
<p>1.</p> <input type="checkbox"/>	<p>While in RBSU, set the Server Availability: Select “Server Availability”, then press [ENTER]</p>	 <p style="text-align: center;">Figure 67. Gen 9: RBSU - Select Server Availability</p>
<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from including: <i>ASR Status, ASR Timeout, Wake-On LAN, POST F1 Prompt, Power Button Mode, Automatic Power-On and Power-On Delay.</i></p>	
<p>3.</p>	<ul style="list-style-type: none"> • Select ASR Status. • Verify it is set to Enabled 	

Procedure 26. Gen9: Verify / Set Server Availability

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

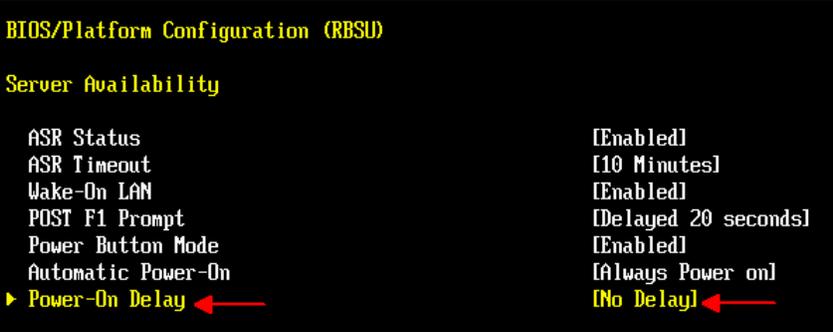
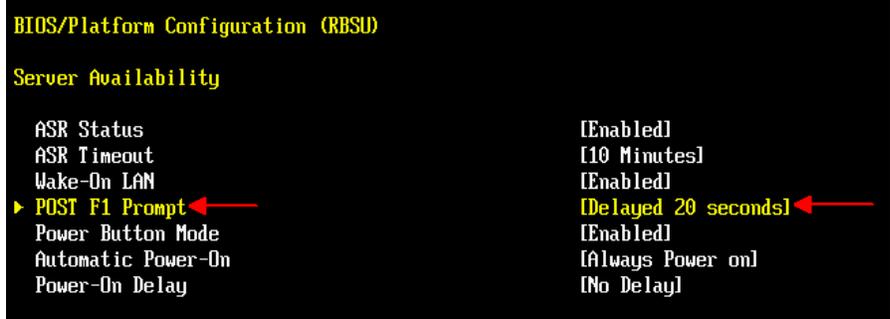
Step	Procedure	Result
4.	If not set to Enabled , press [ENTER] and select “ Enabled ”, then press [ENTER]	 <p>Figure 68. Gen9: RBSU - Verify ASR Status is set to Enabled</p>
5.	Select Automatic Power-On	 <p>Figure 69. Gen9: RBSU - Verify Automatic Power-On is set to Always Power on</p>
6.	Verify Automatic Power-On is set to Always Power On	
7.	If not set to Enabled , press [ENTER] and select “ Enabled ”, then press [ENTER]	

Procedure 26. Gen9: Verify / Set Server Availability

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

Step	Procedure	Result														
8.	Select Power-On Delay	 <p>BIOS/Platform Configuration (RBSU)</p> <p>Server Availability</p> <table border="0"> <tr> <td>ASR Status</td> <td>[Enabled]</td> </tr> <tr> <td>ASR Timeout</td> <td>[10 Minutes]</td> </tr> <tr> <td>Wake-On LAN</td> <td>[Enabled]</td> </tr> <tr> <td>POST F1 Prompt</td> <td>[Delayed 20 seconds]</td> </tr> <tr> <td>Power Button Mode</td> <td>[Enabled]</td> </tr> <tr> <td>Automatic Power-On</td> <td>[Always Power on]</td> </tr> <tr> <td>▶ Power-On Delay ←</td> <td>[No Delay] ←</td> </tr> </table> <p>Figure 70. Gen9: RBSU - Verify Power-On Delay is set to No Delay</p>	ASR Status	[Enabled]	ASR Timeout	[10 Minutes]	Wake-On LAN	[Enabled]	POST F1 Prompt	[Delayed 20 seconds]	Power Button Mode	[Enabled]	Automatic Power-On	[Always Power on]	▶ Power-On Delay ←	[No Delay] ←
ASR Status	[Enabled]															
ASR Timeout	[10 Minutes]															
Wake-On LAN	[Enabled]															
POST F1 Prompt	[Delayed 20 seconds]															
Power Button Mode	[Enabled]															
Automatic Power-On	[Always Power on]															
▶ Power-On Delay ←	[No Delay] ←															
9.	Verify Power-On Delay is set to No Delay															
10.	If not set to Enabled , press [ENTER] and select “ No Delay ”, then press [ENTER]															
11.	Select POST F1 Prompt	 <p>BIOS/Platform Configuration (RBSU)</p> <p>Server Availability</p> <table border="0"> <tr> <td>ASR Status</td> <td>[Enabled]</td> </tr> <tr> <td>ASR Timeout</td> <td>[10 Minutes]</td> </tr> <tr> <td>Wake-On LAN</td> <td>[Enabled]</td> </tr> <tr> <td>▶ POST F1 Prompt ←</td> <td>[Delayed 20 seconds] ←</td> </tr> <tr> <td>Power Button Mode</td> <td>[Enabled]</td> </tr> <tr> <td>Automatic Power-On</td> <td>[Always Power on]</td> </tr> <tr> <td>Power-On Delay</td> <td>[No Delay]</td> </tr> </table> <p>Figure 71. Gen9: RBSU - Verify Post F1 Prompt is set to Delayed 20 seconds</p>	ASR Status	[Enabled]	ASR Timeout	[10 Minutes]	Wake-On LAN	[Enabled]	▶ POST F1 Prompt ←	[Delayed 20 seconds] ←	Power Button Mode	[Enabled]	Automatic Power-On	[Always Power on]	Power-On Delay	[No Delay]
ASR Status	[Enabled]															
ASR Timeout	[10 Minutes]															
Wake-On LAN	[Enabled]															
▶ POST F1 Prompt ←	[Delayed 20 seconds] ←															
Power Button Mode	[Enabled]															
Automatic Power-On	[Always Power on]															
Power-On Delay	[No Delay]															
12.	Verify Delayed 20 seconds is set															

Procedure 26. Gen9: Verify / Set Server Availability

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

Step	Procedure	Result
13.	If not set to Delayed 20 seconds , press [ENTER] and select “ Delayed 20 seconds ”, then press [ENTER]	

Procedure 27. Gen9: Verify / Advanced Options

Procedure 27. Gen9: Verify / Advanced Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

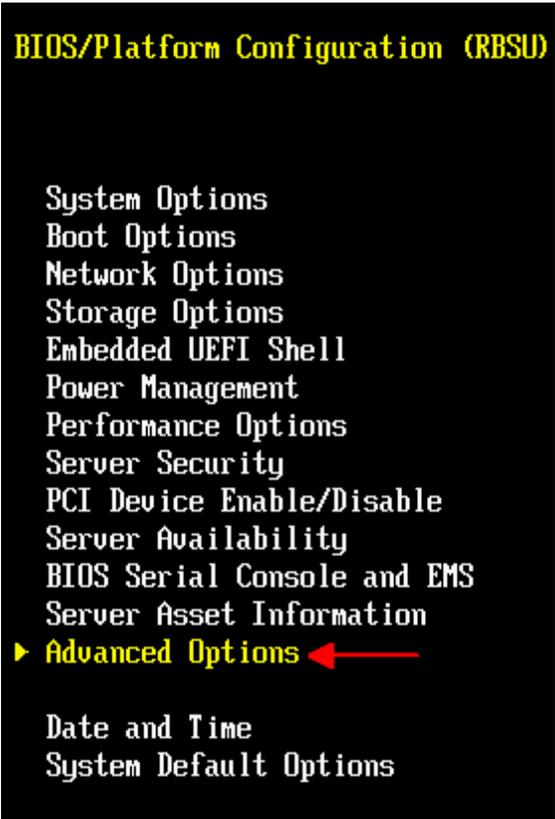
Step	Procedure	Result
------	-----------	--------

Procedure 27. Gen9: Verify / Advanced Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

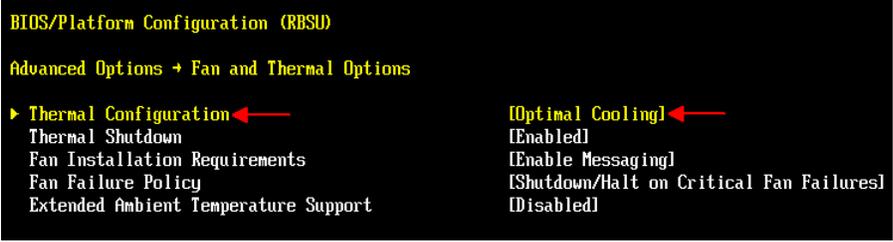
Step	Procedure	Result
<p>1.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div>	<p>While in RBSU, set the Advanced Options. Select “Advanced Options”, then press [ENTER]</p>	 <p style="text-align: center;">Figure 72. Gen 9: RBSU - Verify Advanced Options</p>
<p>2.</p>	<p>After pressing [ENTER] you will see several options to choose from including: <i>ROM Selection, Embedded Video Connection, Fan and Thermal Options, Advanced System ROM options.</i></p>	
<p>3.</p>	<p>Select Fan and Thermal Options</p>	

Procedure 27. Gen9: Verify / Advanced Options

Prerequisites & Requirements:

- ✓ Server rebooted and in RBSU

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

Step	Procedure	Result
4.	Verify Thermal Configuration is set for Optimal Cooling	 <p>The screenshot shows the BIOS/Platform Configuration (RBSU) menu with 'Advanced Options → Fan and Thermal Options' selected. Under 'Thermal Configuration', 'Thermal Shutdown' is set to '[Optimal Cooling]', 'Fan Installation Requirements' is '[Enabled]', 'Fan Failure Policy' is '[Enable Messaging]', and 'Extended Ambient Temperature Support' is '[Shutdown/Halt on Critical Fan Failures]'. The 'Optimal Cooling' option is highlighted with a red arrow.</p> <p style="text-align: center;">Figure 73. Gen 9: RBSU - Verify Fan and Thermal Options</p>
5.	If not set to Optimal Cooling , press [ENTER] and select “ Optimal Cooling ”, then press [ENTER]	

Procedure 28. Gen9: Save and exit the RBSU

Procedure 28. Gen9: Save and exit the RBSU

Prerequisites & Requirements:

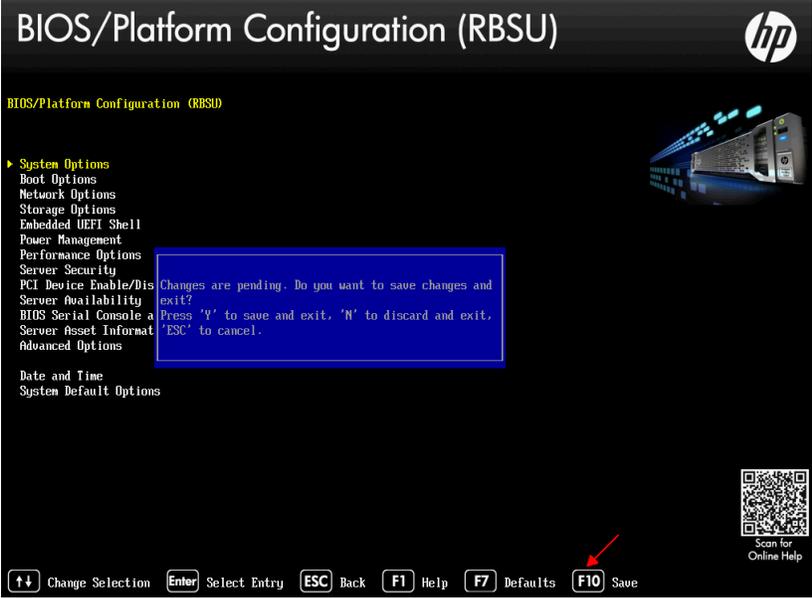
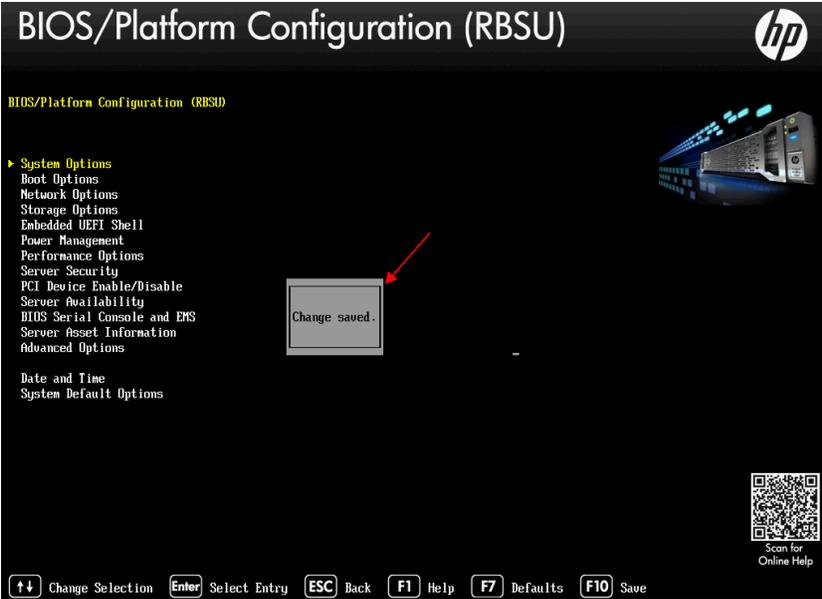
Tasks within the RBSU have been completed.

Step	Procedure	Result
------	-----------	--------

Procedure 28. Gen9: Save and exit the RBSU

Prerequisites & Requirements:

Tasks within the RBSU have been completed.

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

Procedure 28. Gen9: Save and exit the RBSU

Prerequisites & Requirements:

Tasks within the RBSU have been completed.

Step	Procedure	Result
2.	To Exit the RBSU and System Utilities, press <ESC> and then press [ENTER] to confirm exit.	 <p>The screenshot shows the 'System Utilities' interface with the following menu items: System Configuration, One-Time Boot Menu, Embedded Applications, System Information, System Health, Exit and resume system, Reboot the System, and Select Language. A blue box highlights the instruction for exiting. The bottom navigation bar includes: Change Selection (up/down arrows), Enter (Select Entry), ESC (Exit), F1 (Help), and F7 (Defaults). A QR code for online help is also visible.</p>
THIS PROCEDURE HAS BEEN COMPLETED		

Figure 76. Gen9: Exit System Utilities

Appendix L. 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.