

**Oracle® Communications**  
**User Data Repository**  
**Installation and Configuration Guide**  
Release 12.10  
**F45758-01**

August 2021

**ORACLE®**

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 Installation procedure included in the Install Kit.**

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

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>.

See more information on MOS in the Appendix section.

## TABLE OF CONTENTS

|      |  |     |
|------|--|-----|
| 1.   | INTRODUCTION.....  | 7   |
| 1.1  | Purpose and Scope.....   | 7   |
| 1.2  | References .....   | 7   |
| 1.3  | Acronyms .....   | 8   |
| 1.4  | Terminology .....  | 8   |
| 1.5  | Assumptions .....  | 9   |
| 1.6  | XML Files .....  | 9   |
| 1.7  | How to use this Document.....  | 9   |
| 2.   | GENERAL DESCRIPTION .....  | 10  |
| 2.1  | PRE-INSTALLATION SETUP .....   | 11  |
| 3.   | INSTALLATION MATRIX .....  | 14  |
| 3.1  | Installing Oracle Communications User Data Repository on the Customer Network.....                                 | 14  |
| 3.2  | Oracle Communications User Data Repository Installation List of Procedures .....                                   | 17  |
| 4.   | NORMAL CAPACITY C-CLASS CONFIGURATION SOFTWARE INSTALLATION PROCEDURE .....  | 20  |
| 4.1  | Load Operating System ISO and Application ISO to PM&C Server .....   | 20  |
| 4.2  | Configuring Fast Deployment for installing NOAMP Servers (NO and DR Network Elements) .....                        | 20  |
| 4.3  | Configuring Fast Deployment for Installing TVOE Host Servers(Hosting Virtual Machine guests).....                  | 22  |
| 4.4  | Create, IPM and Install Application on all Virtual Machines(SO Network Elements) .....                             | 22  |
| 4.5  | Executing Fast Deployment To Install Normal Capacity C-Class Setup.....  | 23  |
| 5.   | LOW CAPACITY C-CLASS SOFTWARE INSTALLATION PROCEDURE.....  | 25  |
| 5.1  | Load Operating System ISO and Application ISO to PM&C Server .....   | 25  |
| 5.2  | Updating Fast Deployment Configuration File for Installing TVOE Host Servers(Hosting Virtual Machine guests)<br>26 | 26  |
| 5.3  | Updating fast Deployment File for Installing NOAMP / SOAM / MP Servers .....                                       | 27  |
| 5.4  | Executing Fast Deployment To Install Low Capacity C-Class Setup .....  | 27  |
| 6.   | LOW CAPACITY RMS AND LOW CAPACITY RMS WITH LOW SPEED DRIVES CONFIGURATION<br>SOFTWARE INSTALLATION PROCEDURE ..... | 28  |
| 6.1  | Install TVOE Hosts and Deploy PM&C.....  | 28  |
| 6.2  | Create, IPM and Install Application on all Virtual Machines.....   | 30  |
| 7.   | LOW CAPACITY ORACLE RMS CONFIGURATION SOFTWARE INSTALLATION PROCEDURE .....  | 32  |
| 7.1  | Install TVOE Hosts and Deploy PM&C.....  | 32  |
| 7.2  | Create, IPM and Install Application on all Virtual Machines.....   | 35  |
| 8.   | CONFIGURATION PROCEDURES .....   | 36  |
| 8.1  | Configuring NOAMP-A Server (1 <sup>st</sup> NOAMP site only).....  | 36  |
| 8.2  | Create Configuration for Remaining Servers (All Sites) .....   | 50  |
| 8.3  | Configure XSI Networks (All SOAM Sites) .....  | 65  |
| 8.4  | OAM Pairing for the Primary NOAMP Servers (1 <sup>st</sup> NOAMP site only).....                                   | 68  |
| 8.5  | OAM pairing for SOAM and DR sites (All SOAM and DR Sites) .....  | 82  |
| 8.6  | Configuring MP Server Groups (All SOAM sites).....   | 98  |
| 8.7  | Configure MP Signaling Interfaces (All SOAM Sites) .....   | 107 |
| 8.8  | Configure SPR Application on MP (All SOAM Sites).....  | 116 |
| 8.9  | Configure NOAMP Signaling Interfaces (All NOAM Sites) .....  | 122 |
| 8.10 | Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity Systems).....                          | 131 |
| 8.11 | Configure Services on Signaling Network .....  | 138 |
| 9.   | APPENDIX .....   | 142 |

## Oracle Communications User Data Repository Installation and Configuration Guide

|  |     |
|--|-----|
| APPENDIX A. ACCESSING THE ILO VGA REDIRECTION WINDOW .....                             | 142 |
| A.1 Accessing the iLo VGA Redirection Window for HP .....                              | 142 |
| A.2 Accessing the iLo VGA Redirection Window for Oracle RMS Servers .....              | 145 |
| A.3 Accessing the iLo Console for Oracle RMS Servers .....                             | 148 |
| APPENDIX B. ACCESSING THE ORACLE COMMUNICATIONS USER DATA REPOSITORY GUI.....          | 149 |
| B.1 Creating Temporary External XMI IP Address .....                                   | 149 |
| B.2 Creating Temporary External XMI IP Address without Interface Bonding .....         | 150 |
| B.3 Establishing a Local Connection for Accessing the GUI (RMS only) .....             | 151 |
| APPENDIX C. MOUNTING MEDIA ON HP SERVERS .....   | 153 |
| C.1 Mounting Physical Media on HP Servers (RMS only).....                              | 153 |
| C.2 Mounting Virtual Media on HP Servers .....   | 154 |
| C.3 Mounting Virtual Media on Oracle RMS Servers .....                                 | 156 |
| APPENDIX D. HARDWARE SETUP.....  | 160 |
| D.1 BIOS Settings for HP Blade and Rack Mount Servers .....                            | 160 |
| D.2 Oracle RMS Firmware Upgrade .....  | 166 |
| D.3 BIOS Settings for Oracle RMS Servers.....  | 168 |
| APPENDIX E. CONFIGURING DISK ARRAY (NO NETWORK ELEMENT SERVERS).....                   | 170 |
| E.1 Configuring RMS Disk Array (NO Network Element Servers) .....                      | 170 |
| E.2 Configuring RMS Disk Array With Low Speed Drives (NO Network Element Servers)..... | 174 |
| E.3 Configuring Blade Disk Array (NO Network Element Servers with Sidecar) .....       | 177 |
| E.4 Configuring Oracle RMS Disk Array (NO Network Element Servers) .....               | 181 |
| APPENDIX F. INSTALLING OPERATING SYSTEMS.....  | 183 |
| F.1 Installing Operating Systems with ILO .....  | 183 |
| F.2 Installing Operating Systems with PM&C .....                                       | 186 |
| F.3 Installing Operating Systems with ILO for Oracle RMS.....                          | 190 |
| APPENDIX G. INSTALLING ORACLE COMMUNICATIONS USER DATA REPOSITORY APPLICATION          | 194 |
| G.1 Installing Oracle Communications User Data Repository Application with ILO.....    | 194 |
| G.2 Installing Oracle Communications User Data Repository Application with PM&C .....  | 199 |
| APPENDIX H. ACCEPT APPLICATION INSTALLATION ON PM&C MANAGED SERVERS .....              | 202 |
| APPENDIX I. PM&C DEPLOYMENT AND CONFIGURATION.....                                     | 205 |
| I.1 Deploying PM&C on TVOE Server .....  | 205 |
| I.2 Configure PM&C Application.....  | 210 |
| I.3 Add Cabinet to PM&C System Inventory .....   | 215 |
| I.4 Add Rack Mount Server to PM&C System Inventory .....                               | 217 |
| APPENDIX J. ADDING SOFTWARE IMAGES TO PM&C SERVER.....                                 | 219 |
| APPENDIX K. APPLYING SERVER CONFIGURATION .....  | 223 |
| K.1 Applying Server Configuration with ILO.....  | 223 |
| K.2 Applying Server Configuration with PM&C.....                                       | 227 |
| APPENDIX L. CONFIGURE TVOE NETWORK .....   | 240 |
| L.1 Configure TVOE Network for Normal or Low Capacity C-Class Configurations.....      | 240 |
| L.2 Configure TVOE Network for Topology 7 (HP RMS &Oracle RMS with 8 ports) .....      | 244 |
| L.3 Configure TVOE Network for Topology 7 (Oracle RMS with 6 ports) .....              | 248 |
| L.4 Configure TVOE Network for Topology 7 (Oracle RMS with 4 ports).....               | 252 |
| L.5 Configure Additional NTP Server (Setup Recommendation) .....                       | 256 |
| L.6 Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc).....                   | 258 |
| APPENDIX M. REMOVING DISK ARRAY CONFIGURATION.....                                     | 266 |



## Oracle Communications User Data Repository Installation and Configuration Guide

|  |     |
|--|-----|
| M.1 Removing RMS Disk Array Configuration for HP .....   | 266 |
| M.2 Removing Blade Disk Array Configuration (Sidecar).....   | 269 |
| M.3 Removing RMS Disk Array Configuration for Oracle Servers .....   | 273 |
| APPENDIX N. CREATING AN XML FILE FOR INSTALLING NETWORK ELEMENTS .....   | 274 |
| APPENDIX O. APPLICATION NETBACKUP CLIENT INSTALLATION PROCEDURES .....   | 275 |
| O.1 NetBackup Client Installation using Platcfg.....   | 275 |
| O.2 NetBackup Client Installation & Upgrade with AutoInstall .....   | 281 |
| APPENDIX P. LIST OF FREQUENTLY USED TIME ZONES .....   | 283 |
| APPENDIX Q. ADD ADDITIONAL MPS TO LOW CAPACITY ORACLE RMS AFTER UPGRADE.....   | 286 |
| APPENDIX R. ADDING ADDITIONAL MPS TO GEN9 NORMAL CAPACITY CONFIG AFTER UPGRADE.....  | 294 |
| APPENDIX S. UPDATING SOFTWARE AND HARDWARE INFORMATION IN FAST DEPLOYMENT<br>CONFIGURATION FILE .....                        | 302 |
| APPENDIX T. UPDATING FAST DEPLOYMENT CONFIGURATION FILE FOR INSTALLING TVOE IN C-CLASS<br>SYSTEMS .....                      | 305 |
| APPENDIX U. UPDATE FAST DEPLOYMENT CONFIGURATION FILE TO CREATE, IPM AND INSTALL<br>APPLICATION ON ALL VIRTUAL MACHINES..... | 313 |
| APPENDIX V. EXECUTING FAST DEPLOYMENT TO BEGIN INSTALLATION .....  | 317 |
| APPENDIX W. ORACLE COMMUNICATIONS USER DATA REPOSITORY FAST DEPLOYMENT<br>CONFIGURATION VARIABLES .....                      | 320 |
| APPENDIX X. CONTACTING MY ORACLE SUPPORT (MOS).....  | 322 |
| APPENDIX Y. LOCATE PRODUCT DOCUMENTATION ON THE ORACLE HELP CENTER SITE.....   | 323 |

## List of Tables

|  |     |
|--|-----|
| Table 1– Acronyms and Terminology .....  | 8   |
| Table 2 - Oracle Communications User Data Repository Installation Matrix for Normal Capacity C-Class Configuration .....   | 14  |
| Table 3 - Oracle Communications User Data Repository Installation Matrix for Low Capacity C-Class Configuration .....  | 15  |
| Table 4 - Oracle Communications User Data Repository Installation Matrix for Low Capacity RMS Configuration .....  | 15  |
| Table 5 - Oracle Communications User Data Repository Installation Matrix for Low Capacity Oracle RMS Configuration .....   | 16  |
| Table 6 - Oracle Communications User Data Repository Installation: List of Procedures for Normal Capacity C-Class .....  | 17  |
| Table 7 - Oracle Communications User Data Repository Installation: List of Procedures for Low Capacity C-Class .....   | 18  |
| Table 8 - Oracle Communications User Data Repository Installation: List of Procedures for Low Capacity RMS and Low Capacity<br>RMS with Low Speed Disks Configuration..... | 19  |
| Table 9 - Oracle Communications User Data Repository Installation: List of Procedures for Low Capacity RMS Configuration<br>.....  | 19  |
| Table 10– Oracle Communications User Data Repository XML NOAMP Network Element Configuration File..  | 274 |
| Table 11- List of Selected Time Zone Values.....   | 283 |
| Table 12- List of fast Deployment Variables and their Description .....  | 320 |

## List of Figures

|   |    |
|---|----|
| Figure 1. Example of an instruction that indicates the server to which it applies ..... | 9  |
| Figure 2. Initial Application Installation Path – Example shown .....                   | 10 |
| Figure 3. DL 380 Layout .....   | 12 |
| Figure 4. BL460C Gen 9(with storage array) Layout .....                                 | 12 |
| Figure 5. Oracle RMS Layout.....  | 13 |

## Oracle Communications User Data Repository Installation and Configuration Guide

|  |     |
|--|-----|
| Figure 6 -HP DL380 Front Panel: USB Port ..... | 153 |
| Figure 7 -HP DL380 Front Panel: USB Port ..... | 154 |

## 1. INTRODUCTION

### 1.1 Purpose and Scope

This document describes how to install Oracle Communications User Data Repository (on HP ProLiant hardware or Oracle hardware) product within a customer network. It makes use of AppWorks 6.0 network installation and is intended to cover the network configuration steps for NOAMP, SOAM, and MP servers which includes validation of configuration.

This document only describes the Oracle Communications User Data Repository product SW installation on the HP ProLiant Blade/Server or Oracle Server. 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 Oracle Communications User Data Repository cabinet.

### 1.2 References

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

1. Log into the Oracle Help Center site at <http://docs.oracle.com>.
2. Select the tab "Find a product"
3. Type "User Data Repository"
4. Takes you to "CGBU Documentation"
5. Select "User Data Repository" followed by version

- [1] Site Survey (Domestic US), [CGBU\\_GM\\_0593](#), latest revision
- [2] Hardware Verification Plan, [CGBU\\_CS\\_4173](#), latest revision
- [3] Platform 7.2 Installation Guide, CGBU\_018638, latest revision
- [4] Oracle Communications User Data Repository Network Interconnect, E72459-01, latest revision
- [5] Oracle Communications User Data Repository 10.0 Base Hardware and Software Installation Procedure, E48809-01, latest revision
- [6] Oracle Communications User Data Repository 12.4 Software Upgrade Procedure E83399-01, latest revision
- [7] Oracle Communications User Data Repository 12.4 Disaster Recovery Guide E72457-01, latest version
- [8] Oracle Firmware Upgrade Pack, Release Notes 3.1.x, E60195, latest revision
- [9] Oracle Firmware Upgrade Pack, Upgrade Guide 3.1.x, E60196, latest revision
- [10] Oracle Netra Sever X5-2 Service Manual, E53601-02, latest revision
- [11] Oracle Communications Tekelec Platform 7.2 Configuration Guide , E64363-01, latest revision

### 1.3 Acronyms

An alphabetized list of acronyms used in the document:

| Acronym               | Meaning  |
|-----------------------|--|
| Enablement            | The business practice of providing support services (hardware, software, documentation, etc) that enable a 3 <sup>rd</sup> party entity to install, configuration, and maintain Oracle products for Oracle customers.  |
| FDC                   | Fast Deployment and Configuration  |
| Gen9                  | ProLiantDL380Gen9 or ProLiantBL460Gen9   |
| Geo-redundant Systems | This is the case where paired Oracle Communications User Data Repository sites do not share the same IMI network. It could also mean the same lab with different switches.   |
| HA                    | High Availability  |
| IMI                   | Internal Management Interface  |
| IPM                   | Initial Product Manufacture – the process of installing TPD on hardware platform   |
| NOAMP                 | Network Operations, Administration, Maintenance& Provisioning  |
| SOAM                  | System Operations, Administration and Maintenance  |
| MOS                   | My Oracle Support  |
| MP                    | Message Processor  |
| OCUDR                 | Oracle Communications User Data Repository   |
| Oracle RMS            | Oracle Server X5-2 or Netra X5-2   |
| RMS                   | Rack Mount Server  |
| Software Centric      | The business practice of delivering an Oracle software product, while relying upon the customer to procure the requisite hardware components. Oracle provides the hardware specifications, but does not provide the hardware, and is not responsible for hardware installation, configuration, or maintenance. |
| SPR                   | Subscriber Profile Repository  |
| TPD                   | Tekelec Platform Distribution (Linux OS)   |
| UDR                   | User Data Repository   |
| VIP                   | Virtual IP   |
| VM                    | Virtual Machine  |
| XMI                   | External Management Interface  |
| XML                   | Extended Markup Language   |
| XSI                   | External Signaling Interface   |

Table 1– Acronyms and Terminology

### 1.4 Terminology

Multiple server types may be involved with the procedures in this manual. Therefore, most steps in the written procedures begin with the name or type of server to which the step applies. For example:

*Each step has a checkbox for every command within the step that the technician should check to keep track of the progress of the procedure.*

*The title box describes the operations to be performed during that step.*

*Each command that the technician is to enter is in 10 point bold Courier font.*

|   |   |  |
|---|---|--|
| 5 | <input type="checkbox"/> <b>ServerX:</b> Connect to the console of the server | Establish a connection to the server using cu on the terminal server/console.<br><br><b>\$cu -l /dev/ttyS7</b> |
|---|---|--|

**Figure 1. Example of an instruction that indicates the server to which it applies**

### 1.5 Assumptions

This procedure assumes the following:

- The user has taken assigned values from the Customer network and used them to compile XML files (see Appendix N for each NOAMP and SOAM site's NE prior to attempting to execute this procedure).
- The user conceptually understands Oracle Communications User Data Repository topology and network configuration as described in the Oracle Communications User Data Repository Network Interconnect Guide [4].
- The user has at least an intermediate skill set with command prompt activities on an Open Systems computing environment such as Linux or TPD.

### 1.6 XML Files

#### 1.6.1 For installing NE

The XML files compiled for installation of the each of the NOAMP and SOAM site's NE must be maintained and accessible for use in Disaster Recovery procedures. The Professional Services Engineer (PSE) 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 My Oracle Support (MOS) if needed for use in Disaster Recovery operations. For more details on Disaster Recovery refer to reference [7].

#### 1.6.2 For Oracle Communications User Data Repository Fast Deployment

The XML files will be available as a part of Oracle Communications User Data Repository image and will be used for fast deployment of Oracle Communications User Data Repository Application. The XML files will be in the form of generic templates and need to be updated by the user according to the target setup. Also the user should retain the updated XML files to use in future or to recover a node after any disaster.

### 1.7 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 [7]. 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;

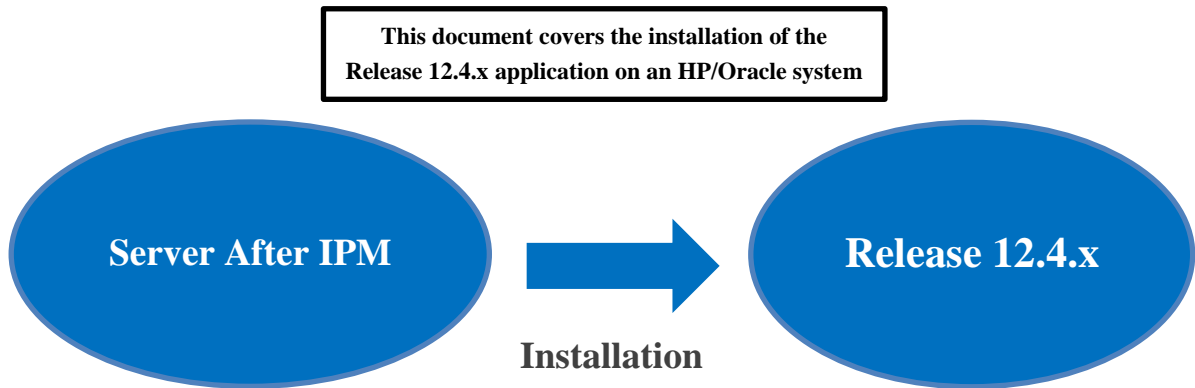
- 1) Before beginning a procedure, completely read the instructional text (it will appear immediately after the Section heading for each procedure) and all associated procedural WARNINGS or NOTES.
- 2) Before execution of a STEP within a procedure, completely read the left and right columns including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

If a procedural STEP fails to execute successfully, STOP and contact My Oracle Support MOS Appendix X Contacting My Oracle Support (MOS) for assistance before attempting to continue.

## **2. GENERAL DESCRIPTION**

This document defines the steps to execute the installation of the Oracle Communications User Data Repository Release 12.4 application on HP ProLiant Hardware BL-460 for C-Class Configurations, DL-380 for RMS deployments or Oracle X5-2 and Netra X5-2 (RMS servers).

Oracle Communications User Data Repository 12.4 installation paths are shown in the figures below. The general timeline for all processes to perform a software installation and configuration is also included below.



**Figure 2. Initial Application Installation Path – Example shown**

## 2.1 PRE-INSTALLATION SETUP

### 2.1.1 Installation Requirements

The following items/settings are required in order to perform installation for HP DL380, HP BL460 and Oracle X5-2 and Netra X5-2 based Oracle Communications User Data Repository:

- 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” and “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).

### 2.1.2 Physical Connections

A connection to the VGA/Keyboard ports on the HP DL380 rear panel or a connection to the iLO is required to initiate and monitor the progress of Oracle Communications User Data Repository installation procedures. Blade installations require no physical connections as installation is carried out through a management server.

### 2.1.3 Access Alternatives for Application Install

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

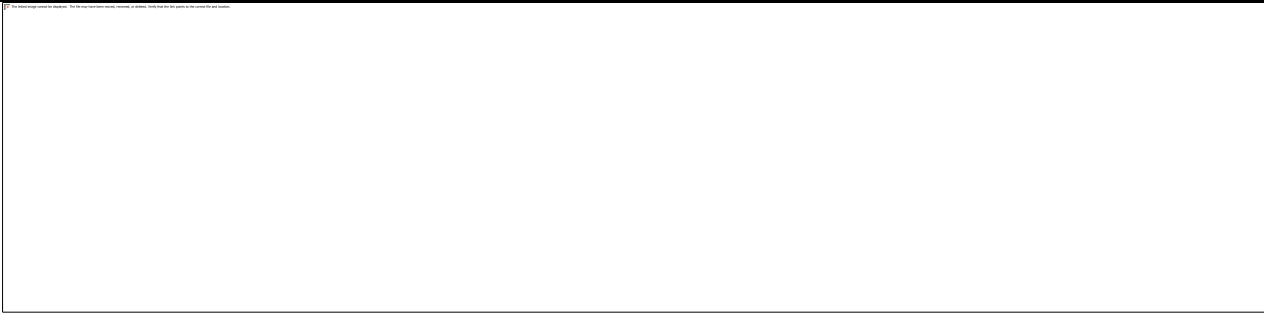


Figure 3. DL 380 Layout




Figure 4. BL460C Gen 9(with storage array) Layout





Figure 5. Oracle RMS Layout

|  |                          |   |
|--|--------------------------|---|
| <p>One of the <b>Access Methods</b> shown to the right may be used to initiate and monitor installation.</p>   | <input type="checkbox"/> | <p><b>Method 1)</b> VGA Monitor and USB Keyboard.</p>   |
| <p><b>NOTE:</b> <i>Methods 3&amp; 4 may only be used on an HP DL360 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><b>Method 2)</b> Laptop +  KVM2USB Switch. <a href="http://www.epiphan.com/products/frame-grabbers/kvm2usb/">http://www.epiphan.com/products/frame-grabbers/kvm2usb/</a></p> |
|  | <input type="checkbox"/> | <p><b>Method 3)</b> iLO VGA Redirection Window, IE8, Ethernet cable. (See <b>Appendix A.1</b> Accessing the iLO VGA Redirection Window for HP)</p>  |
|  | <input type="checkbox"/> | <p><b>Method 4)</b> iLO access via SSH, terminal program, Ethernet cable.</p>   |

### 2.1.4 Network Topologies

Various Topologies will be supported for this release. C-Class (Normal or Low Capacity) utilize Topologies (1,3, and 4) and Low Capacity RMS Configurations utilize Topology 7. Please refer to [4] for Topology details.

### 2.1.5 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 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.).*

### 2.1.6 Sun NETRA NX5-2 Server Disk Allocation

When installing Sun NETRA NX5-2 server hardware, the storage drives may need to be arranged to support the Oracle Communications User Data Repository Application. Using reference [10] as a guide:

- Ensure the two drives marked HDD (typically with 1.2TB capacity) are installed into **Bay 0** and **Bay 1**.
- Ensure the remaining drives marked SSD (typically with a 400GB capacity) are installed into **Bay 2** through **Bay 5**.

### 3. INSTALLATION MATRIX

#### 3.1 Installing Oracle Communications User Data Repository on the Customer Network

Installing the Oracle Communications User Data Repository 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 site types. The user should be aware that this document only covers the necessary configuration required to complete product install. Refer to the online help or contact the MY ORACLE SUPPORT MOS FOR ASSISTANCE (see Appendix X) with post installation configuration options

**NOTE:** Although the NOAMP 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 “NOAMP ” site refers to the 1<sup>st</sup> installation of a NOAMP pair on the customer network while references to the “DR NOAMP” site refers to the 2<sup>nd</sup> NOAMP pair to be installed.

**Normal Capacity C-Class Configuration** (Topologies 1 and 4 supported , refer to [4] for more details on the configurations):

| Server Type              |          | Procedure Number |   |   |   |   |    |    |    |    |    |    |    |    |    |    |
|--------------------------|----------|------------------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|
|                          |          | 1                | 2 | 3 | 4 | 5 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 24 |
| <input type="checkbox"/> | NOAMP-A  | ✓                | ✓ | ✗ | ✗ | ✓ | ✓  | ✗  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✓  | ✓  |
| <input type="checkbox"/> | NOAMP-B  | ✓                | ✓ | ✗ | ✗ | ✓ | ✗  | ✓  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✓  | ✗  |
| <input type="checkbox"/> | DR NOAMP | ✓                | ✓ | ✗ | ✗ | ✓ | ✗  | ✓  | ✗  | ✗  | ✓  | ✗  | ✗  | ✗  | ✓  | ✗  |
| <input type="checkbox"/> | SOAM     | ✓                | ✗ | ✓ | ✓ | ✓ | ✗  | ✓  | ✓  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✗  |
| <input type="checkbox"/> | MP       | ✓                | ✗ | ✓ | ✓ | ✓ | ✗  | ✓  | ✓  | ✗  | ✓  | ✓  | ✓  | ✓  | ✗  | ✗  |

Table 2 - Oracle Communications User Data Repository Installation Matrix for Normal Capacity C-Class Configuration

**Low Capacity C-Class Configuration** (Topologies 1 and 4 supported , refer to [4] for more details on the configurations) :

| Server Type              |          | Procedure Number |   |   |   |    |    |    |    |    |    |    |    |    |    |
|--------------------------|----------|------------------|---|---|---|----|----|----|----|----|----|----|----|----|----|
|                          |          | 6                | 7 | 8 | 9 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 23 | 24 |
| <input type="checkbox"/> | NOAMP-A  | ✓                | ✓ | ✓ | ✓ | ✓  | ✗  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✓  | ✓  |
| <input type="checkbox"/> | NOAMP-B  | ✓                | ✓ | ✓ | ✓ | ✗  | ✓  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✓  | ✗  |
| <input type="checkbox"/> | DR NOAMP | ✓                | ✓ | ✓ | ✓ | ✗  | ✓  | ✗  | ✗  | ✓  | ✗  | ✗  | ✗  | ✓  | ✗  |
| <input type="checkbox"/> | SOAM     | ✓                | ✓ | ✓ | ✓ | ✗  | ✓  | ✓  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✗  |
| <input type="checkbox"/> | MP       | ✓                | ✓ | ✓ | ✓ | ✗  | ✓  | ✓  | ✗  | ✓  | ✓  | ✓  | ✓  | ✗  | ✗  |

Table 3 - Oracle Communications User Data Repository Installation Matrix for Low Capacity C-Class Configuration

**Low Capacity RMS/Low Capacity RMS with Low speed Disks Configuration**

(Topology 7 supported , refer to [4] for more details on the configurations):

| Server Type              |          | Procedure Number |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------|----------|------------------|----|----|----|----|----|----|----|----|----|----|----|
|                          |          | 10               | 11 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 23 | 24 |
| <input type="checkbox"/> | NOAMP-A  | ✓                | ✓  | ✓  | ✗  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✓  | ✓  |
| <input type="checkbox"/> | NOAMP-B  | ✓                | ✓  | ✗  | ✓  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✓  | ✗  |
| <input type="checkbox"/> | DR NOAMP | ✓                | ✓  | ✗  | ✓  | ✗  | ✗  | ✓  | ✗  | ✗  | ✗  | ✓  | ✗  |
| <input type="checkbox"/> | SOAM     | ✓                | ✓  | ✗  | ✓  | ✓  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✗  |
| <input type="checkbox"/> | MP       | ✓                | ✓  | ✗  | ✓  | ✓  | ✗  | ✓  | ✓  | ✓  | ✓  | ✗  | ✗  |

Table 4 - Oracle Communications User Data Repository Installation Matrix for Low Capacity RMS Configuration

**Low Capacity Oracle RMS Configuration** (Topology 7 supported , refer to [4] for more details on the configurations) :

| Server Type              |          | Procedure Number |    |    |    |    |    |    |    |    |    |    |    |
|--------------------------|----------|------------------|----|----|----|----|----|----|----|----|----|----|----|
|                          |          | 12               | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 23 | 24 |
| <input type="checkbox"/> | NOAMP-A  | ✓                | ✓  | ✓  | ✗  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✓  | ✓  |
| <input type="checkbox"/> | NOAMP-B  | ✓                | ✓  | ✗  | ✓  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✓  | ✗  |
| <input type="checkbox"/> | DR NOAMP | ✓                | ✓  | ✗  | ✓  | ✗  | ✗  | ✓  | ✗  | ✗  | ✗  | ✓  | ✗  |
| <input type="checkbox"/> | SOAM     | ✓                | ✓  | ✗  | ✓  | ✓  | ✗  | ✓  | ✗  | ✗  | ✗  | ✗  | ✗  |
| <input type="checkbox"/> | MP       | ✓                | ✓  | ✗  | ✓  | ✓  | ✗  | ✓  | ✓  | ✓  | ✓  | ✗  | ✗  |

**Table 5 - Oracle Communications User Data Repository Installation Matrix for Low Capacity Oracle RMS Configuration**

### 3.2 Oracle Communications User Data Repository Installation List of Procedures

#### Normal Capacity C-Class Configuration

| Procedure No : | Title :   | Page No : |
|----------------|---|-----------|
| 1              | Load Operating System ISO and Application ISO to PM&C Server  | 20        |
| 2              | Configuring Fast Deployment for installing NOAMP Servers (NO and DR Network Elements)                           | 20        |
| 3              | Configuring Fast Deployment for Installing TVOE Host Servers(Hosting Virtual Machine guests)                    | 22        |
| 4              | Configuring Fast Deployment to Create, IPM and Install Application on all Virtual Machines(SO Network Elements) | 23        |
| 5              | Executing Fast Deployment to Install Normal Capacity C-Class Setup  | 24        |
| 14             | Configuring NOAMP-A Server (1st NOAMP site only)  | 36        |
| 15             | Create Configuration for Remaining Servers (All Sites)  | 50        |
| 16             | Configure XSI Networks (All SOAM Sites)   | 65        |
| 17             | OAM Pairing for the Primary NOAMP Servers (1 <sup>st</sup> NOAMP site only)                                     | 68        |
| 18             | OAM pairing for SOAM and DR sites (All SOAM and DR Sites)   | 82        |
| 19             | Configuring MP Server Groups (All SOAM sites)   | 98        |
| 20             | Configure MP Signaling Interfaces (All SOAM Sites)  | 107       |
| 21             | Configure SPR Application on MP (All SOAM Sites)  | 116       |
| 22             | Configure NOAMP Signaling Interfaces (All NOAM Sites)   | 122       |
| 24             | Configure Services on Signaling Network   | 137       |

**Table 6 - Oracle Communications User Data Repository Installation: List of Procedures for Normal Capacity C-Class**

## Low Capacity C-Class Configuration

| Procedure No : | Title :   | Page No : |
|----------------|---|-----------|
| 6              | Load Operating System ISO and Application ISO to PM&C Server  | 25        |
| 7              | Updating Fast Deployment for Installing TVOE Host Servers(Hosting Virtual Machine guests)                       | 27        |
| 8              | Updating Fast Deployment File for Installing NOAMP / SOAM / MP Servers  | 28        |
| 9              | Executing Fast Deployment To Install Low Capacity C-Class Setup<br><a href="#">_Executing_Fast_Deployment_1</a> | 28        |
| 14             | Configuring NOAMP-A Server (1st NOAMP site only)  | 36        |
| 15             | Create Configuration for Remaining Servers (All Sites)  | 50        |
| 16             | Configure XSI Networks (All SOAM Sites)   | 65        |
| 17             | OAM Pairing for the Primary NOAMP Servers (1 <sup>st</sup> NOAMP site only)                                     | 68        |
| 18             | OAM pairing for SOAM and DR sites (All SOAM and DR Sites)   | 82        |
| 19             | Configuring MP Server Groups (All SOAM sites)   | 98        |
| 20             | Configure MP Signaling Interfaces (All SOAM Sites)  | 107       |
| 21             | Configure SPR Application on MP (All SOAM Sites)  | 116       |
| 23             | Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity Systems)                            | 131       |
| 24             | Configure Services on Signaling Network   | 137       |

**Table 7 - Oracle Communications User Data Repository Installation: List of Procedures for Low Capacity C-Class**

Low Capacity RMS and Low Capacity RMS with Low Speed Disks Configuration

| Procedure No : | Title :   | Page No : |
|----------------|---|-----------|
| 10             | Install TVOE Hosts and Deploy PM&C  | 28        |
| 11             | Create, IPM and Install Application on all Virtual Machines                                   | 30        |
| 14             | Configuring NOAMP-A Server (1st NOAMP site only)  | 36        |
| 15             | Create Configuration for Remaining Servers (All Sites)  | 50        |
| 16             | Configure XSI Networks (All SOAM Sites)   | 65        |
| 17             | OAM Pairing for the Primary NOAMP Servers (1 <sup>st</sup> NOAMP site only)                   | 68        |
| 18             | OAM pairing for SOAM and DR sites (All SOAM and DR Sites)                                     | 82        |
| 19             | Configuring MP Server Groups (All SOAM sites)   | 98        |
| 20             | Configure MP Signaling Interfaces (All SOAM Sites)  | 107       |
| 21             | Configure SPR Application on MP (All SOAM Sites)  | 116       |
| 23             | Configure NOAMP Signaling Interfaces ( <b>virtual NOAMP servers on Low Capacity Systems</b> ) | 131       |
| 24             | Configure Services on Signaling Network   | 137       |

Table 8 - Oracle Communications User Data Repository Installation: List of Procedures for Low Capacity RMS and Low Capacity RMS with Low Speed Disks Configuration

Low Capacity Oracle RMS Configuration

**Oracle Communications User Data Repository Installation and Configuration Guide**

| <b>Procedure No :</b> | <b>Title :</b>   | <b>Page No :</b> |
|-----------------------|--|------------------|
| 12                    | Install TVOE Hosts and Deploy PM&C   | 32               |
| 13                    | Create, IPM and Install Application on all Virtual Machines                          | 35               |
| 14                    | Configuring NOAMP-A Server (1st NOAMP site only)                                     | 36               |
| 15                    | Create Configuration for Remaining Servers (All Sites)                               | 50               |
| 16                    | Configure XSI Networks (All SOAM Sites)  | 65               |
| 17                    | OAM Pairing for the Primary NOAMP Servers (1 <sup>st</sup> NOAMP site only)          | 68               |
| 18                    | OAM pairing for SOAM and DR sites (All SOAM and DR Sites)                            | 82               |
| 19                    | Configuring MP Server Groups (All SOAM sites)  | 98               |
| 20                    | Configure MP Signaling Interfaces (All SOAM Sites)                                   | 107              |
| 21                    | Configure SPR Application on MP (All SOAM Sites)                                     | 116              |
| 23                    | Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity Systems) | 131              |
| 24                    | Configure Services on Signaling Network  | 137              |

**Table 9 - Oracle Communications User Data Repository Installation: List of Procedures for Low Capacity RMS Configuration**



## 4. NORMAL CAPACITY C-CLASS CONFIGURATION SOFTWARE INSTALLATION PROCEDURE

The user should confirm that the server has been verified through the Hardware Verification Plan [2] before beginning this procedure. ProLiantBL460Gen8, ProLiantBL460Gen8+ or ProLiantBL460Gen9 blades are supported for this procedure.

### 4.1 Load Operating System ISO and Application ISO to PM&C Server

**Requirements:**

PM&C should have been deployed and initialized and PM&C server should be running.

**Needed material:**

- Operating System ISO image:
  - TPD Media
  - TVOE Media
- Oracle Communications User Data Repository Application ISO

**Procedure 1: Load Operating System ISO and Application ISO to PM&C Server**

| Step                                     | Procedure                                     | Result   |
|--|---|--|
| 1.<br><input type="checkbox"/>           | Add images to Management Server               | Follow <b>Appendix J Adding Software Images to PM&amp;C Server</b> to add TPD, TVOE and Oracle Communications User Data Repository software images.                          |
| 2.<br><input type="checkbox"/>           | PM&C server's console                         | Login to the PM&C console using “ <b>admusr</b> ” and provided password. Change user to “ <b>root</b> ” using the following command on server’s console:<br><b>sudo su -</b> |
| 3.<br><input type="checkbox"/>           | Update the Fast Deployment Configuration file | Follow Steps mentioned in:<br><a href="#">Appendix S - Updating Software And Hardware Information in Fast Deployment Configuration File</a>                                  |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |  |

### 4.2 Configuring Fast Deployment for installing NOAMP Servers (NO and DR Network Elements)

This procedure will add configuration to Fast Deployment configuration file for installing Tekelec Platform Distribution (TPD) and Oracle Communications User Data Repository application on the NO network elements.

**Requirements:**

- [Procedure 1: Load Operating System ISO and Application ISO to PM&C Server](#) must be complete.

**Procedure 2: Configuring Fast Deployment for installing NOAMP Servers (NO and DR Network Elements)**

| Step                                     | Procedure   | Result  |
|--|---|---|
| <p>1.</p> <input type="checkbox"/>       | <p>Identify “&lt;native&gt;” tag in the Fast Deployment configuration file.</p>           | <p>Identify the “&lt;native&gt;” tag in the template xml file. These xml tags contains the configuration for normal capacity NOAMP servers.</p>   |
| <p>2.</p> <input type="checkbox"/>       | <p>Add the correct hardware info under &lt;native&gt; tag</p>                             | <p>Identify the &lt;hardware&gt; tag and replace the existing info with correct hardware information (enclosure, bay):</p> <pre> &lt;hardware&gt;   &lt;enclosure&gt;     &lt;enchwid&gt;101&lt;/enchwid&gt;     &lt;bay&gt;1F&lt;/bay&gt;   &lt;/enclosure&gt; &lt;/hardware&gt;                     </pre>  |
| <p>3.</p> <input type="checkbox"/>       | <p><b>For Active NOAMP only</b></p> <p>Assign temporary XMI IP to Active NOAMP server</p> | <p><b>Update the networking information for Active NOAMP only:</b></p> <p>Identify the &lt;tpdnetworking&gt; tag in the template file under the “&lt;native&gt;” tag for this server.</p> <p>Under &lt;tpdnetworking&gt;, update the XMI interface:</p> <pre> &lt;tpdinterface id="bond0.xmi_vlan_id"&gt;   &lt;device&gt;bond0.xmi_vlan_id&lt;/device&gt;   &lt;type&gt;Vlan&lt;/type&gt;   &lt;vlldata&gt;     &lt;vlanid&gt;xmi_vlan_id&lt;/vlanid&gt;   &lt;/vlldata&gt;   &lt;onboot&gt;yes&lt;/onboot&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt;   &lt;address&gt;xmi_ip_address&lt;/address&gt;   &lt;netmask&gt;xmi_netmask&lt;/netmask&gt; &lt;/tpdinterface&gt;                     </pre> <p><b>Replace the values as highlighted with XMI network parameters.</b></p> <p><b>Note:</b> The IP address should be specified in a valid IPv4 format.</p> |
| <p>4.</p> <input type="checkbox"/>       | <p>Repeat Step 1 and 2 for remaining NOAMP servers</p>                                    | <p>Repeat steps 1 and 2 for remaining NOAMP servers in this setup (Primary and DR NOMAP servers) and check the following boxes:</p> <p><input type="checkbox"/> NOAMP-A                      <input type="checkbox"/> NOAMP-B</p> <p><input type="checkbox"/> DR-NOAMP-A                      <input type="checkbox"/> DR-NOAMP-B</p>   |
| <p><b>THIS PROCEDURE IS COMPLETE</b></p> |   |   |

### 4.3 Configuring Fast Deployment for Installing TVOE Host Servers(Hosting Virtual Machine guests)

This procedure will configure the Fast Deployment Configuration file for installing operating system on hardware that will host SOAM and MP VM Guests. A C-Class system can have two blades at a site that are configured the same and utilize the following procedure.

**Requirements:**

- [Appendix S: Updating Software and Hardware Information in Fast Deployment Configuration File](#)

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

#### Procedure 3: Configuring Fast Deployment for Installing TVOE Host Servers(Hosting Virtual Machine guests)

| Step                              | Procedure   | Result  |
|-----------------------------------|---|---|
| 1.<br><input type="checkbox"/>    | Access the HP server's console.                     | Connect to the HP server's console using one of the access methods described in <i>Section 2.1.2</i> .  |
| 2.<br><input type="checkbox"/>    | Update firmware                                     | Confirm that the firmware is upgraded to the latest version. For more information, please refer to Platform 7.2 documentation [3].  |
| 3.<br><input type="checkbox"/>    | Update BIOS settings                                | Follow steps defined in <b>Appendix D.1 BIOS Settings</b> to update BIOS settings.  |
| 4.<br><input type="checkbox"/>    | Update Fast Deployment Configuration file           | Follow the steps defined in <a href="#">Appendix T: TVOE Installation and Configuration for Normal and Low capacity C-Class Systems</a>   |
| 5.<br><input type="checkbox"/>    | Repeat step 1 to 4 for all TVOE hosts in the setup. | Repeat steps 1 to 4 above for all the TVOE hosts in the setup. For a Normal capacity setup with Primary and DR site, there will be 4 TVOE hosts, with 2 TVOE hosts in each site (primary and DR). One PMAC will manage 2 TVOEs.<br><br><input type="checkbox"/> TVOE-1 (Primary site) <input type="checkbox"/> TVOE-2 (Primary site)<br><input type="checkbox"/> TVOE-1 (DR site) <input type="checkbox"/> TVOE-2 (DR site) |
| <b>THIS PROCEDURE IS COMPLETE</b> |   |   |

### 4.4 Create, IPM and Install Application on all Virtual Machines(SO Network Elements)

This procedure will configure the Fast Deployment configuration file to create Virtual Machines (VMs) for SO and MP servers, install the TPD Operating System on each VM, and install the Oracle Communications User Data Repository application on each VM. It details the create/IPM/install for a single VM and should be repeated for every VM. A C-Class system can have two blades at a site that are configured the same and utilize the following procedure.

**Requirements:**

## Oracle Communications User Data Repository Installation and Configuration Guide

- **Procedure 3: Configuring Fast Deployment for Installing TVOE Host Servers(Hosting Virtual Machine guests)**

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

### Procedure 4: Configure Fast Deployment to Create, IPM and Install Application on all Virtual Machines

Blade deployments (ex: **ProLiantBL460cGen8**) will use only one IP to access the PM&C that manages the entire enclosure for this Oracle Communications User Data Repository site.

| Step                                     | Procedure   | Result   |
|--|---|--|
| 1.<br><input type="checkbox"/>           | Access PM&C server's console.                         | Connect to the PM&C server's console using username and password as provided.  |
| 2.<br><input type="checkbox"/>           | Open the Fast Deployment Configuration template file. | Go to the path on PM&C and open the Fast Deployment Configuration template file in write mode.   |
| 3.<br><input type="checkbox"/>           | Update file   | Follow the steps defined in <a href="#">Appendix U: Updating Fast Deployment configuration File to create, IPM and Install Application on all Virtual Machines</a> |
| 4.<br><input type="checkbox"/>           | Update file for all virtual machines                  | Repeat step 3 to update fast deployment configuration file for all virtual machines in the setup (SO and MP servers).  |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |  |

## 4.5 Executing Fast Deployment To Install Normal Capacity C-Class Setup

### Procedure 5: Executing Fast Deployment to Install Normal Capacity C-Class Setup

| Step                           | Procedure                                     | Result   |
|--------------------------------|---|--|
| 1.<br><input type="checkbox"/> | Access the HP server's console.               | Connect to the server's console using one of the access methods described in <i>Section 2.1.2</i>  |
| 2.<br><input type="checkbox"/> | iLO Console                                   | <p><b>Note:</b> Execute only if a previous installation exists on the Blade.</p> <p>Follow steps defined in ..</p> <p><b>Appendix M.2 Removing Blade Disk Array Configuration (Sidecar)</b></p> <p>... to clean the Disk Array</p> |
| 3.<br><input type="checkbox"/> | <b>Appendix V:</b><br>Execute Fast Deployment | <p><b>Follow Steps defined in:</b></p> <p><a href="#">Appendix V: Executing Fast Deployment To Begin Installation</a></p>  |

Procedure 5: Executing Fast Deployment to Install Normal Capacity C-Class Setup

| Step   | Procedure   | Result   |
|--|---|--|
| <p>4.</p> <input type="checkbox"/>   | <p><b>(Optional)</b></p> <p>Configure NetBackup Dedicated Interface</p> <p>(Only deployments with Net Backup)</p> <p>Dual Pass-Thru Modules</p> | <p>For c-Class Blade, Netbackup enabled systems equipped with <i>two</i> Pass Thru Modules:</p> <pre>#netAdm add --device=bond2 --type=Bonding --mode=active-backup \ --onboot=yes --bootproto=none --bondInterfaces="eth21,eth22" \ --address=&lt;NetBackup_IP&gt; --netmask=&lt;NetBackup_NetMask&gt;</pre> <pre>#netAdm add --route=net --device=bond2 \ --address=&lt;NetBackup_Network_Address&gt; \ --netmask=&lt;NetBackup_Network_NetMask&gt; \ --gateway=&lt;NetBackup_Network_Gateway_IP&gt;</pre> <p>[OPTIONAL] If this installation is using jumbo frames, set the ethernet interface MTU to the desired jumbo frame size:</p> <pre>#netAdm set --device=bond2 --MTU=&lt;NetBackup_MTU_size&gt;</pre>  |
| <p>5.</p> <input type="checkbox"/>   | <p><b>(Optional)</b></p> <p>Configure Second NetBackup Interface</p> <p>(Only deployments with Net Backup)</p> <p>Single Pass-Thru Modules</p>  | <p>For c-Class Blade, Netbackup enabled systems equipped with <i>a single</i> Pass Thru Module:</p> <p>For <b>Blade</b> systems with a <i>single</i> Pass Thru Module, &lt;backup_device&gt; will be : <b>eth21</b></p> <pre>#netAdm set --device=&lt;backup_device&gt; --slave=no --onboot=yes \ --address=&lt;NetBackup_IP&gt; --netmask=&lt;NetBackup_NetMask&gt;</pre> <pre>#netAdm add --route=net --device=&lt;backup_device&gt; \ --address=&lt;NetBackup_Network_Address&gt; \ --netmask=&lt;NetBackup_Network_NetMask&gt; \ --gateway=&lt;NetBackup_Network_Gateway_IP&gt;</pre> <p>[OPTIONAL] If this installation is using jumbo frames, set the ethernet interface MTU to the desired jumbo frame size:</p> <pre>#netAdm set --device=&lt;backup_device&gt; --MTU=&lt;NetBackup_MTU_size&gt;</pre> |
| <p>6.</p> <input type="checkbox"/> | <p><b>TVOE host's console:</b></p> <p>Reboot all TVOE hosts</p>   | <p>Reboot all TVOE hosts that have been installed using Fast Deployment to get vCPU pinning configuration in effect using the following command on TVOE host's console:</p> <ol style="list-style-type: none"> <li>1. Login to TVOE host's console and switch user to "root" using following command:<br/><code>sudo su -</code></li> <li>2. Reboot the TVOE host using the following command:<br/><code>reboot</code></li> </ol> <p><input type="checkbox"/> TVOE-1                      <input type="checkbox"/> TVOE-2</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>                  |   |  |

## 5. LOW CAPACITY C-CLASS SOFTWARE INSTALLATION PROCEDURE

The user should confirm that the server has been verified through the Hardware Verification Plan [2] before beginning this procedure. ProLiantBL460Gen8, ProLiantBL460Gen8+ or ProLiantBL460Gen9 are supported for this procedure.

The following Low Capacity C-Class configurations will be supported and can utilize the procedures in this section:

- **One server per site system**  
This includes all Oracle Communications User Data Repository software running on a TVOE virtualization environment. This configuration will be supported for lab testing systems only.
  
- **Two server per site system**  
This includes all Oracle Communications User Data Repository software running on a TVOE virtualization environment in each server, resulting in a fully-virtualized, fully-redundant HA configuration. This can be deployed either as a single site or as a geo-redundant deployment, with two servers at each site.

### 5.1 Load Operating System ISO and Application ISO to PM&C Server

**Requirements:**

PM&C should have been deployed and initialized and PM&C server should be running.

**Needed material:**

- Operating System ISO image:
  - TPD Media
  - TVOE Media
- Oracle Communications User Data Repository Application ISO

**Procedure 6: Load Operating System ISO and Application ISO to PM&C Server**

| Step                                     | Procedure                                     | Result  |
|--|---|---|
| 1.<br><input type="checkbox"/>           | Add images to Management Server               | Follow <b>Appendix J Adding Software Images to PM&amp;C Server</b> to add TPD, TVOE and Oracle Communications User Data Repository software images.                         |
| 2.<br><input type="checkbox"/>           | PM&C server's console                         | Login to the PM&C console using “ <b>admusr</b> ”and provided password. Change user to “ <b>root</b> ” using the following command on server’s console:<br><b>sudo su -</b> |
| 3.<br><input type="checkbox"/>           | Update the Fast Deployment Configuration file | Follow Steps mentioned in:<br><a href="#">Appendix S - Updating Software And Hardware Information in Fast Deployment Configuration File</a>                                 |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |   |

## 5.2 Updating Fast Deployment Configuration File for Installing TVOE Host Servers(Hosting Virtual Machine guests)

This procedure will configure the Fast Deployment Configuration file for installing operating system on hardware that will host SOAM and MP VM Guests. A C-Class system can have two blades at a site that are configured the same and utilize the following procedure.

### Requirements:

- [Procedure 6: Load Operating System ISO and Application ISO to PM&C Server](#) must be complete.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

### Procedure 7: Updating Fast Deployment Configuration File for Installing TVOE Host Servers(Hosting Virtual Machine guests)

| Step                              | Procedure   | Result   |
|-----------------------------------|---|--|
| 1.<br><input type="checkbox"/>    | Access the HP server's console.                     | Connect to the HP server's console using one of the access methods described in <i>Section 2.1.2</i> .   |
| 2.<br><input type="checkbox"/>    | Update firmware                                     | Confirm that the firmware is upgraded to the latest version. For more information, please refer to Platform 7.2 documentation [3].   |
| 3.<br><input type="checkbox"/>    | Update BIOS settings                                | Follow steps defined in <b>Appendix D.1 BIOS Settings</b> to update BIOS settings.   |
| 4.<br><input type="checkbox"/>    | Check the type of server hardware                   | Run the following command on HP server's console to check hardware type:<br><code># hardwareInfo   grep Hardware</code><br><br><b>The output should be one of the following:</b><br>Hardware ID: ProLiantBL460Gen8 or ProLiantBL460Gen8+ or ProLiantBL460Gen9  |
| 5.<br><input type="checkbox"/>    | Update file   | Follow the steps defined in <a href="#">Appendix T: TVOE Configuration for Normal and Low capacity C-Class Systems</a>   |
| 6.<br><input type="checkbox"/>    | Repeat step 1 to 5 for all TVOE hosts in the setup. | Repeat steps 1 to 5 above for all the TVOE hosts in the setup. For a Low capacity setup with Primary and DR site, there will be 4 TVOE hosts, with 2 TVOE hosts in each site (primary and DR).<br><br><input type="checkbox"/> TVOE-1 (Primary site) <input type="checkbox"/> TVOE-2 (Primary site)<br><input type="checkbox"/> TVOE-1 (DR site) <input type="checkbox"/> TVOE-2 (DR site) |
| <b>THIS PROCEDURE IS COMPLETE</b> |   |  |

### 5.3 Updating fast Deployment File for Installing NOAMP / SOAM / MP Servers

This procedure will add information to Fast Deployment configuration file for installing Tekelec Platform Distribution (TPD) and Oracle Communications User Data Repository application on the NOAMP network elements.

#### Procedure 8: Updating Fast Deployment File for Installing NOAMP / SOAM / MP Servers

| Step                              | Procedure                       | Result  |
|-----------------------------------|---------------------------------|---|
| 1.<br><input type="checkbox"/>    | PM&C server's console.          | Update Fast Deployment Configuration file for VM guests as mentioned in:<br><br><a href="#">Appendix U: Update Fast Deployment Configuration File to create, IPM and Install Application on all Virtual Machines</a>  |
| 2.<br><input type="checkbox"/>    | Repeat Step 1 for all VM guests | Repeat step 1 for all VM guests and check the following boxes when done:<br><br><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP-B<br><input type="checkbox"/> SOAM-A <input type="checkbox"/> SOAM-B<br><input type="checkbox"/> MP-1 <input type="checkbox"/> MP-2 |
| <b>THIS PROCEDURE IS COMPLETE</b> |                                 |   |

### 5.4 Executing Fast Deployment To Install Low Capacity C-Class Setup

#### Procedure 9: Executing Fast Deployment To Install Low Capacity C-Class Setup

| Step                                     | Procedure                                     | Result  |
|--|---|---|
| 1.<br><input type="checkbox"/>           | Access the HP server's console.               | Connect to the server's console using one of the access methods described in <i>Section 2.1.2</i>   |
| 2.<br><input type="checkbox"/>           | iLO Console                                   | <b>Note:</b> Execute only if a previous installation exists on the Blade.<br><br>Follow steps defined in ..<br><br><b>Appendix M.2 Removing Blade Disk Array Configuration (Sidecar)</b><br><br>... to clean the Disk Array   |
| 3.<br><input type="checkbox"/>           | <b>Appendix V:</b><br>Execute Fast Deployment | <b>Follow Steps defined in:</b><br><a href="#">Appendix V: Executing Fast Deployment To Begin Installation</a>  |
| 4.<br><input type="checkbox"/>           | Reboot all TVOE hosts                         | Reboot all TVOE hosts that have been installed using Fast Deployment to get vCPU pinning configuration in effect using the following command on TVOE host's console:<br><br><code>sudo reboot</code><br><br><input type="checkbox"/> TVOE-1 <input type="checkbox"/> TVOE-2 |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |   |



## 6. LOW CAPACITY RMS AND LOW CAPACITY RMS WITH LOW SPEED DRIVES CONFIGURATION SOFTWARE INSTALLATION PROCEDURE

The user should confirm that the server has been verified through the Hardware Verification Plan [2] before beginning this procedure.

The following HP RMS configurations will be supported and can utilize the procedures in this section:

- **1-RMS sever per site system**  
This includes all Oracle Communications User Data Repository software running on a TVOE virtualization environment. This configuration will be supported for lab testing systems only.
- **2-RMS server per site system**  
This includes all Oracle Communications User Data Repository software running on a TVOE virtualization environment in each server, resulting in a fully-virtualized, fully-redundant HA configuration. This can be deployed either as a single site or as a geo-redundant deployment, with 2 RMS servers at each site.

### 6.1 Install TVOE Hosts and Deploy PM&C

This procedure will install and configure the operating system on hardware that will host NOAMP, SOAM and MP VM Guests. ProLiantDL380Gen8, ProLiantDL380Gen8+ or ProLiantDL380Gen9 are supported for this procedure.

**Needed material:**

- TVOE Media
- PMAC Media

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**Procedure 10:** Install TVOE Hosts and Deploy PM&C

| Step                           | Procedure                                 | Result   |
|--------------------------------|---|--|
| 1.<br><input type="checkbox"/> | <i>Access the HP server's console.</i>    | Connect to the HP server's console using one of the access methods described in <i>Section 2.1.2</i> .                             |
| 2.<br><input type="checkbox"/> | <i>Verify the type of server hardware</i> | # <code>hardwareInfo   grep Hardware</code><br>Hardware ID: ProLiantDL380Gen8, ProLiantDL380Gen8+ or ProLiantDL380Gen9             |
| 3.<br><input type="checkbox"/> | <i>Update firmware</i>                    | Confirm that the firmware is upgraded to the latest version. For more information, please refer to Platform 7.2 documentation [3]. |
| 4.<br><input type="checkbox"/> | <i>Update BIOS settings</i>               | Follow steps defined in <b>Appendix D.1 BIOS Settings</b> to update BIOS settings.   |

**Procedure 10:** Install TVOE Hosts and Deploy PM&C

| Step   | Procedure                                     | Result  |
|--|---|---|
| <p>5.</p> <input type="checkbox"/>   | <p><i>Clean the Disk Array</i></p>            | <p><b>Note:</b> Execute only if a previous installation exists on the RMS server.</p> <ol style="list-style-type: none"> <li>1. Log in to HP server's console as root</li> <li>2. Check for the presence of guests with the command:<br/># <code>virsh list --all</code></li> <li>3. If any guests are shown, remove each of them with the command:<br/># <code>guestMgr --remove &lt;guest_name&gt;</code></li> <li>4. Follow steps defined in ..</li> </ol> <p><b>Appendix M.1:</b> Removing RMS Disk Array Configuration for HP</p> <p>... to clean the Disk Array</p> |
| <p>6.</p> <input type="checkbox"/>   | <p><i>Install Operating System (TVOE)</i></p> | <p>Follow steps defined in ...</p> <p><b>Appendix F.1</b> Installing Operating Systems with ILO(DL380 hardware)</p> <p>... to install TVOE software.</p>  |
| <p>7.</p> <input type="checkbox"/>   | <p><i>Configure TVOE network</i></p>          | <p>Follow steps defined in ...</p> <p><b>Appendix L.2</b> Configure TVOE Network for Topology 7</p> <p>... to configure TVOE network.</p>   |
| <p>8.</p> <input type="checkbox"/> | <p><i>Configure Disk Array</i></p>            | <p>Follow steps defined in ...</p> <p><b>RMS Disk Array:</b></p> <p style="padding-left: 40px;"><b>Appendix E.1</b> Configuring Disk Array (NO Network Element Servers)</p> <p><b>RMS Disk Array with Low Speed Drives:</b></p> <p style="padding-left: 40px;"><b>Appendix E.2</b> Configuring RMS Disk Array With Low Speed Drives (NO Network Element Servers)</p> <p>... to configure the disk array.</p>  |

**Procedure 10:** Install TVOE Hosts and Deploy PM&C

| Step  | Procedure                                      | Result  |
|---|--|---|
| <p>9.</p> <input type="checkbox"/>    | <p><i>Configure a logical storage pool</i></p> | <p>a. Create the file name “configStorageBlade” through vi command.</p> <pre>[root@pc9000714-tvoe ~]# vi configStorageBlade</pre> <p>Add the line below in the file</p> <p><b>For Low Capacity RMS Configuration:</b></p> <pre>vg --name="stripePool_vg" --members="sdb,sdc,sdd" --virtstoragepool</pre> <p><b>For Low Capacity RMS with Low Speed Disks Configuration:</b></p> <pre>vg --name="stripePool_vg" --members="sdb,sdc" --virtstoragepool</pre> <p>b. Create storage pool</p> <pre>[root@pc9000714-tvoe ~]# /usr/TKLC/plat/sbin/storageMgr configStorageBlade</pre> <p>c. Verify pool is listed below</p> <pre>[root@pc9000714-tvoe ~]# virsh pool-list Name                State      Autostart ----- stripePool_vg       active    yes vgguests            active    yes</pre> |
| <p>10.</p> <input type="checkbox"/> | <p><i>Deploy PM&amp;C</i></p>                  | <p>Follow steps defined in <b>Appendix I.1 Deploying PM&amp;C on TVOE Server.</b></p>   |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>                   |  |   |

**6.2 Create, IPM and Install Application on all Virtual Machines**

This procedure will use the Oracle Communications User Data Repository Fast Deployment create Virtual Machines (VMs) for NOAMP, SOAM and MP servers, install the TPD Operating System on each VM, and install the Oracle Communications User Data Repository application on each VM.

**Requirements:**

- **Procedure 10:** Install TVOE Hosts and Deploy PM&C has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**Procedure 11: Create, IPM and Install Application on all Virtual Machines**

| Step                                     | Procedure   | Result   |
|--|---|--|
| 1.<br><input type="checkbox"/>           | Add images to Management Server   | Follow <b>Appendix J: Adding Software Images to PM&amp;C Server</b> ..to add TPD, TVOE and Oracle Communications User Data Repository software images.   |
| 2.<br><input type="checkbox"/>           | PM&C server's console   | Login to the PM&C console using “ <b>admusr</b> ”and provided password. Change user to “ <b>root</b> ” using the following command on server’s console:<br><b>sudo su -</b>  |
| 3.<br><input type="checkbox"/>           | Update the Fast Deployment Configuration file   | Follow Steps mentioned in:<br><a href="#">Appendix S - Updating Software And Hardware Information in Fast Deployment Configuration File</a>  |
| 4.<br><input type="checkbox"/>           | PM&C server's console.  | Update Fast Deployment Configuration file for VM guests as mentioned in:<br><a href="#">Appendix U: Update Fast Deployment Configuration File to create, IPM and Install Application on all Virtual Machines</a>   |
| 5.<br><input type="checkbox"/>           | Repeat Step 5 for all VM guests   | Repeat step 5 for all VM guests and check the following boxes when done:<br><br><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP-B<br><input type="checkbox"/> SOAM-A <input type="checkbox"/> SOAM-B<br><input type="checkbox"/> MP-1 <input type="checkbox"/> MP-2  |
| 6.<br><input type="checkbox"/>           | <b>PMAC server's Console:</b><br>Update RMS iLO console's username and password to fast deployment database | Update the username and password of the iLO console of the RMS hardware using the following steps:<br>1. Update iLO console’s username by running the following command on PMAC server’s console:<br><b>fdconfig addInfrastructure --type=pmac --elementType=pmacrms --elementName=mytvoe --elementUser=&lt;username&gt;</b><br>2. When this command is executed, it will prompt for the password for iLO console of RMS. Enter the password:<br><b>What is the password for &lt;username&gt;?</b> |
| 7.<br><input type="checkbox"/>           | <b>Appendix V:</b><br>Execute Fast Deployment   | Follow Steps defined in:<br><a href="#">Appendix V: Executing Fast Deployment To Begin Installation</a>  |
| 8.<br><input type="checkbox"/>           | Reboot all TVOE host  | Reboot the TVOE host get vCPU pinning configuration in effect using the following command on TVOE host’s console:<br><br><b>sudo reboot</b>  |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |  |

## 7. LOW CAPACITY ORACLE RMS CONFIGURATION SOFTWARE INSTALLATION PROCEDURE

The user should confirm that the server has been verified through the Hardware Verification Plan [2] before beginning this procedure.

The following Oracle RMS Configurations will be supported and can utilize the procedures in this section:

- 1-RMS sever per site system**  
 This includes all Oracle Communications User Data Repository software running on a TVOE virtualization environment. This configuration will be supported only for lab testing systems.
- 2-RMS server per site system**  
 This includes all Oracle Communications User Data Repository software running on a TVOE virtualization environment in each server, resulting in a fully-virtualized, fully-redundant HA configuration. This can be deployed either as a single site or as a geo-redundant deployment, with 2 RMS servers at each site.

### 7.1 Install TVOE Hosts and Deploy PM&C

This procedure will install and configure the operating system on hardware that will host NOAMP, SOAM and MP VM Guests. Oracle Server X5-2s (Hardware ID: ORACLESERVERX5-2) and Netra Server X5-2 (Hardware ID: NETRASERVERX5-2) are supported for this procedure.

**Needed material:**

- TVOE Media
- PMAC Media

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**Procedure 12:** Install TOVE Hosts and Deploy PM&C

| Step                           | Procedure                               | Result   |
|--------------------------------|---|--|
| 1.<br><input type="checkbox"/> | Access the Oracle RMS server's console. | Connect to the Oracle RMS server's console using <b>Appendix A.2</b> or <b>Appendix A.3</b>                          |
| 2.<br><input type="checkbox"/> | Verify the type of server hardware      | # <code>hardwareInfo   grep Hardware</code><br>Hardware ID:ORACLESERVERX5-2 <b>or</b><br>Hardware ID:NETRASERVERX5-2 |

**Procedure 12:** Install TOVE Hosts and Deploy PM&C

| Step  | Procedure                                     | Result   |
|---|---|--|
| <p><b>3.</b><br/><input type="checkbox"/></p> | <p><i>Arrange storage drives</i></p>          | <p>If the Hardware ID returned in Step 2 shows:</p> <p><b>NETRASERVERX5-2</b></p> <p>Then the storage drives may need to be arranged to support the Oracle Communications User Data Repository Application. Using reference [10] as a guide:</p> <ul style="list-style-type: none"> <li>- Ensure the two drives marked HDD (typically with 1.2TB capacity) are installed into <b>Bay 0</b> and <b>Bay 1</b>.</li> <li>- Ensure the remaining drives marked SSD (typically with a 400GB capacity) are installed into <b>Bay 2</b> through <b>Bay 5</b>.</li> </ul>                              |
| <p><b>4.</b><br/><input type="checkbox"/></p> | <p><i>Update firmware</i></p>                 | <p>Follow steps defined in ...</p> <p><b>Appendix D.2</b> Oracle RMS Firmware Upgrade</p> <p>... to update firmware.</p>   |
| <p><b>5.</b><br/><input type="checkbox"/></p> | <p><i>Update BIOS settings</i></p>            | <p>Follow steps defined in <b>Appendix D.3</b> BIOS Settings for Oracle RMS Servers</p> <p>... to update BIOS settings.</p>  |
| <p><b>6.</b><br/><input type="checkbox"/></p> | <p><i>Clean the Disk Array</i></p>            | <p><b>Note:</b> Execute only if a previous installation exists on the Oracle RMS server.</p> <ol style="list-style-type: none"> <li>1. Log in to Oracle RMS iLo console as root</li> <li>2. Check for the presence of guests with the command:<br/># <code>virsh list --all</code></li> <li>3. If any guests are shown, remove each of them with the command:<br/># <code>guestMgr --remove &lt;guest_name&gt;</code></li> <li>4. Follow steps defined in ..</li> </ol> <p><b>Appendix M.3</b> Removing RMS Disk Array Configuration for Oracle Servers</p> <p>... to clean the Disk Array</p> |
| <p><b>7.</b><br/><input type="checkbox"/></p> | <p><i>Install Operating System (TVOE)</i></p> | <p>Follow steps defined in ...</p> <p><b>Appendix 0</b><br/>Installing Operating Systems with ILO for Oracle RMS</p> <p>... to install TVOE software.</p>  |

**Procedure 12:** Install TOVE Hosts and Deploy PM&C

| Step  | Procedure                                      | Result  |
|---|--|---|
| <p>8.</p> <input type="checkbox"/>    | <p><i>Configure TVOE network</i></p>           | <p>If this Oracle RMS has 8 ports, follow steps defined in ...</p> <p><b>Appendix L.2</b> Configure TVOE Network for Topology 7 (HP RMS &amp; Oracle RMS with 8 ports)</p> <p>If this Oracle RMS has 6 ports, follow steps defined in ...</p> <p><b>Appendix L.3</b> Configure TVOE Network for Topology 7 (Oracle RMS with 6 ports)</p> <p>If the Oracle RMS has only 4 ports, follow steps defined in ...</p> <p><b>Appendix L.4</b> Configure TVOE Network for Topology 7 (Oracle RMS with 4 ports)</p> <p>... to configure TVOE network.</p>  |
| <p>9.</p> <input type="checkbox"/>    | <p><i>Configure Disk Array</i></p>             | <p>Follow steps defined in ...</p> <p><b>Appendix 0</b><br/>Configuring Oracle RMS Disk Array (NO Network Element Servers)</p> <p>... to configure the disk array.</p>  |
| <p>10.</p> <input type="checkbox"/> | <p><i>Configure a logical storage pool</i></p> | <p>a. Create the file name “configStorageBlade” through vi command.</p> <pre>[root@pc9000714-tvoe ~]# vi configStorageBlade</pre> <p>Add the line below in the file</p> <pre>vg --name="stripePool_vg" --members="sdb" --virtstoragepool</pre> <p>b. Create storage pool</p> <pre>[root@pc9000714-tvoe ~]# /usr/TKLC/plat/sbin/storageMgr configStorageBlade</pre> <p>c. Verify pool is listed below</p> <pre>[root@pc9000714-tvoe ~]# virsh pool-list Name                State      Autostart ----- stripePool_vg       active    yes vgguests            active    yes</pre> |
| <p>11.</p> <input type="checkbox"/> | <p><i>Deploy PM&amp;C</i></p>                  | <p>Follow steps defined in <b>Appendix I.1 Deploying PM&amp;C on TVOE Server.</b></p>   |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>                   |  |   |

## 7.2 Create, IPM and Install Application on all Virtual Machines

This procedure will create Virtual Machines (VMs) for NOAMP, SOAM and MP servers, install the TPD Operating System on each VM, and install the Oracle Communications User Data Repository application on each VM using Oracle Communications User Data Repository Fast Deployment.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

### Procedure 13: Create, IPM and Install Application on all Virtual Machines

| Step                                     | Procedure   | Result  |
|--|---|---|
| 1.<br><input type="checkbox"/>           | Add images to Management Server   | Follow <b>Appendix J : Adding Software Images to PM&amp;C Server</b> ...to add TPD, TVOE and Oracle Communications User Data Repository software images.  |
| 2.<br><input type="checkbox"/>           | PM&C server's console   | Login to the PM&C console using “ <b>admusr</b> ”and provided password. Change user to “ <b>root</b> ” using the following command on server’s console:<br><b>sudo su -</b>   |
| 3.<br><input type="checkbox"/>           | Update the Fast Deployment Configuration file   | Follow Steps mentioned in:<br><br><a href="#">Appendix S - Updating Software And Hardware Information in Fast Deployment Configuration File</a>   |
| 4.<br><input type="checkbox"/>           | PM&C server's console.  | Update Fast Deployment Configuration file for VM guests as mentioned in:<br><a href="#">Appendix U: Update Fast Deployment Configuration File to create, IPM and Install Application on all Virtual Machines</a>  |
| 5.<br><input type="checkbox"/>           | Repeat Step 5 for all VM guests   | Repeat step 5 for all VM guests and check the following boxes when done:<br><br><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP-B<br><input type="checkbox"/> SOAM-A <input type="checkbox"/> SOAM-B<br><input type="checkbox"/> MP-1 <input type="checkbox"/> MP-2<br><input type="checkbox"/> MP-3 <input type="checkbox"/> MP-4  |
| 6.<br><input type="checkbox"/>           | <b>PMAC server's Console:</b><br>Update RMS iLO console's username and password to fast deployment database | Update the username and password of the iLO console of the target RMS hardware using the following steps:<br><br>1. Update iLO console’s username by running the following command on PMAC server’s console:<br><b>fdconfig addInfrastructure --type=pmac --elementType=pmacrms --elementName=mytvoe --elementUser=&lt;username&gt;</b><br><br>2. When this command is executed, it will prompt for the password for iLO console of RMS. Enter the password:<br><b>What is the password for &lt;username&gt;?</b> |
| 7.<br><input type="checkbox"/>           | <b>Appendix V:</b><br>Execute Fast Deployment   | Follow Steps defined in:<br><a href="#">Appendix V: Executing Fast Deployment To Begin Installation</a>   |
| 8.<br><input type="checkbox"/>           | Reboot all TVOE host  | Reboot the TVOE host get vCPU pinning configuration in effect using the following command on TVOE host’s console:<br><br><b>sudo reboot</b>   |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |   |



## 8. CONFIGURATION PROCEDURES

### 8.1 Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

This procedure does all steps that are necessary for configuring the first NOAMP server. This includes configuring a temporary interface to the NOAMP-A GUI, creating Network Elements for all required networks, configuring Services and creating/configuring the first NOAMP-A server.

#### Requirements:

- **NOAMP, SOAM and MP servers have been installed successfully by executing Fast Deployment**

#### Assumptions:

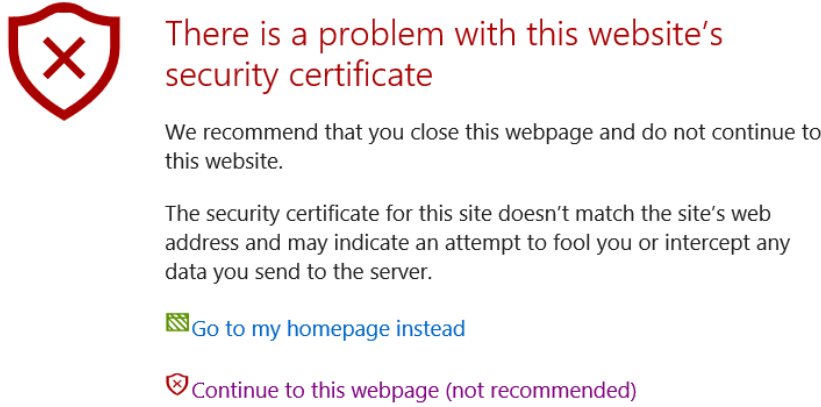

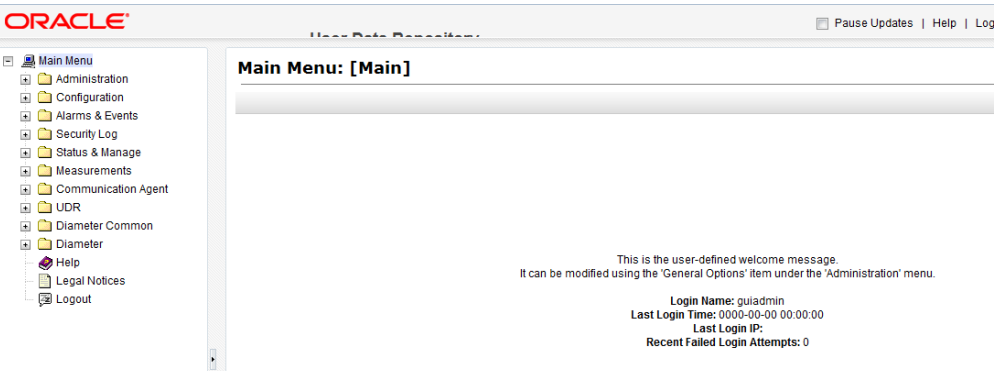
- This procedure assumes that the Oracle Communications User Data Repository Network Element XML file for the Primary Provisioning NOAMP site has previously been created, as described in Appendix N: Creating an XML file for Installing Network Elements.
- This procedure assumes that the Network Element 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 Oracle Communications User Data Repository GUI prior to configuring the first Oracle Communications User Data Repository server. This can be done either by one of two procedures:

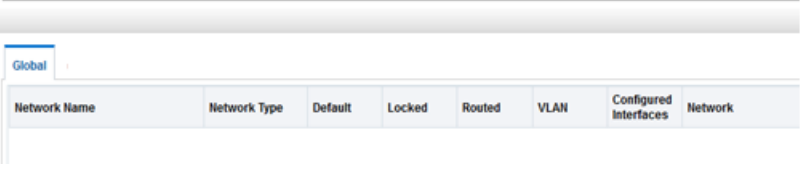
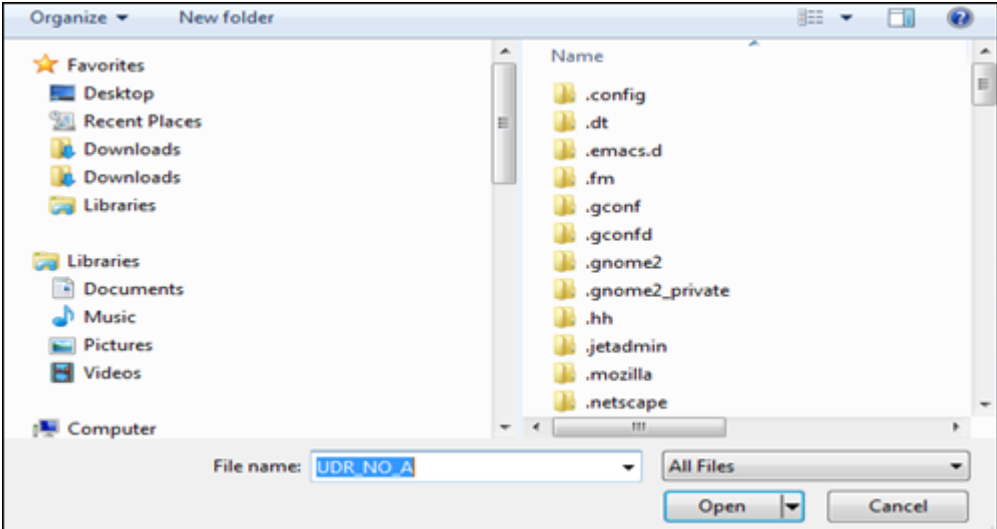
1. (If one was not created yet in previous procedure) Configuring a Temporary External XMI IP Address, as described in **Appendix B.1** Creating Temporary External XMI IP Address or optionally
2. Plugging a laptop into an unused, unconfirmed port on the NOAMP-A server using a direct-connect Ethernet cable, as described in **Appendix B.3: Establishing a Local Connection for Accessing GUI (RMS only)**

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

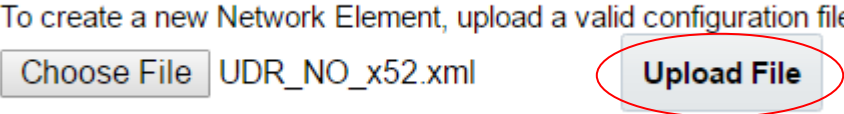
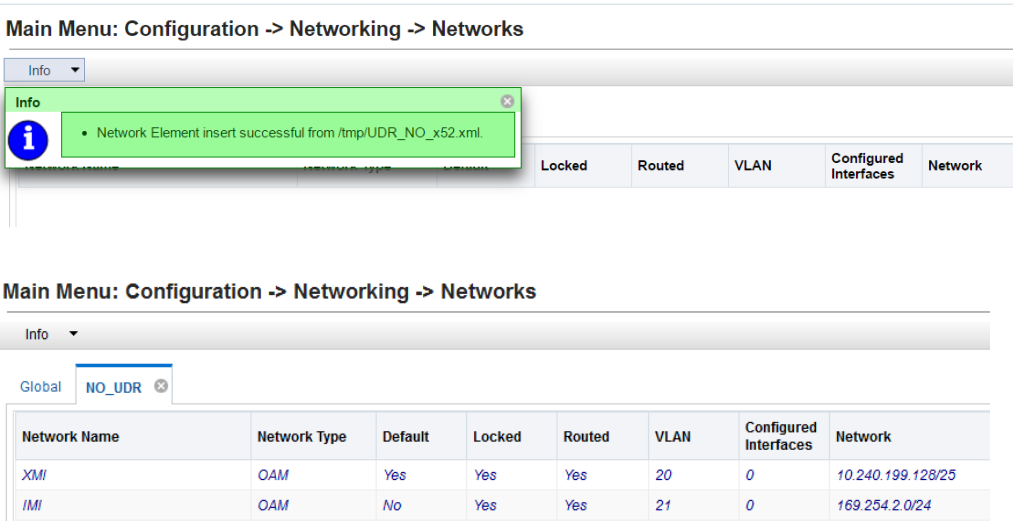
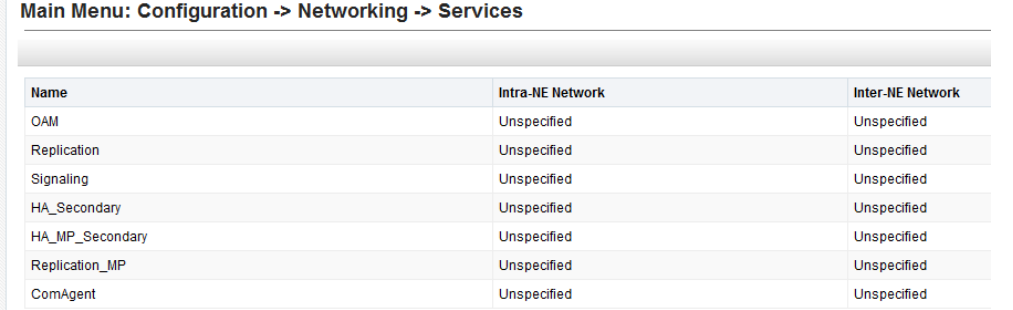
Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step   | Procedure  | Result  |
|--|--|---|
| <p>1.</p> <input type="checkbox"/>   | <p><b>NOAMP Server A:</b></p> <p>Launch an approved web browser and connect to the NOAMP Server A IP address</p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: <b>“Continue to this website (not recommended)”</b>.</p> |  <p>The image shows a security certificate warning from a web browser. It features a red shield with a white 'X' icon. The text reads: "There is a problem with this website's security certificate". Below this, it says: "We recommend that you close this webpage and do not continue to this website." and "The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server." There are two buttons: a green one labeled "Go to my homepage instead" and a purple one labeled "Continue to this webpage (not recommended)".</p>  |
| <p>2.</p> <input type="checkbox"/>   | <p><b>NOAMP Server A:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>  |  <p>The image shows the Oracle System Login page. At the top is the Oracle logo. Below it, the text "Oracle System Login" and "Fri Nov 18 14:55:38 2016 EST" are visible. A central box contains the "Log In" form with fields for "Username:" and "Password:", a "Change password" checkbox, and a "Log In" button. Below the form, it says "Welcome to the Oracle System Login." and "This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details." At the bottom, it states "Unauthorized access is prohibited." and includes copyright information for Oracle and Java.</p>  |
| <p>3.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user should be presented the Oracle Communications User Data Repository Main Menu as shown on the right.</p>  |  <p>The image shows the Oracle Communications User Data Repository Main Menu. It features the Oracle logo at the top left and a navigation menu on the left side with items like Administration, Configuration, Alarms &amp; Events, Security Log, Status &amp; Manage, Measurements, Communication Agent, UDR, Diameter Common, Diameter, Help, Legal Notices, and Logout. The main content area displays "Main Menu: [Main]" and a user-defined welcome message: "This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administration' menu." Below this, login statistics are shown: "Login Name: guidadmin", "Last Login Time: 0000-00-00 00:00:00", "Last Login IP:", and "Recent Failed Login Attempts: 0".</p> |

**Procedure 14:** Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step                               | Procedure   | Result  |
|------------------------------------|---|---|
| <p>4.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b><br/><i>Configuring Network Element</i></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ Configuration<br/>→ Networking → Networks</p> <p>...as shown on the right.</p>  | <p>Main Menu: Configuration -&gt; Networking -&gt; Networks</p>                                     |
| <p>5.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>From the <b>Configuration / Network Elements</b> screen...</p> <p>Select the “<b>Choose File</b>” dialogue button (scroll to bottom right corner of screen).</p>   | <p>To create a new Network Element, upload a valid configuration file</p> <p><input type="button" value="Choose File"/> No file chosen <input type="button" value="Upload File"/></p> |
| <p>6.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p><b>Note:</b> This step assumes that the <b>.xml</b> files were previously prepared, as described in Appendix N.</p> <p>1) Select the location containing the site <b>.xml</b> file.</p> <p>2) Select the <b>.xml</b> file and click the “<b>Open</b>” dialogue button.</p> |   |

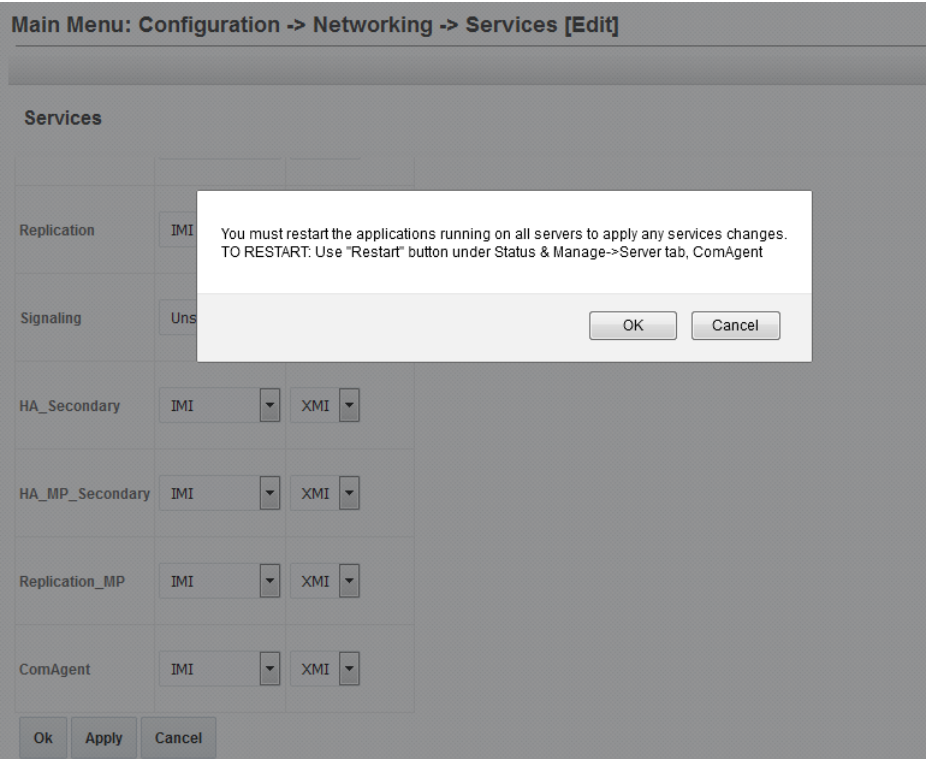
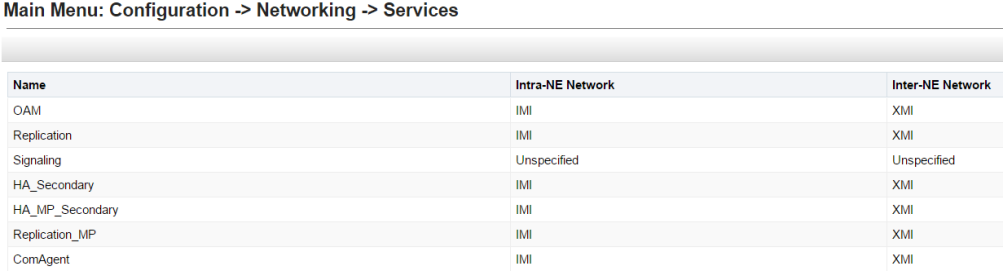
**Procedure 14:** Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step                               | Procedure  | Result   |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
|------------------------------------|--|--|--------------|------------------|------------------|-----------------------|-------------------|-------------|-----------------------|-------------|-------------|-----------|-------------|-------------|--------------|-------------|-------------|-------------------|-------------|-------------|----------------|-------------|-------------|----------|-------------|----------------|
| <p>7.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select the “<b>Upload File</b>” dialogue button (bottom right corner of screen).</p>  | <p>To create a new Network Element, upload a valid configuration file:</p>   |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| <p>8.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>If the values in the .xml file pass validation rules, the user receives a banner information message showing that the data has been successfully committed to the DB.</p> <p><b>Note:</b> You may have to left mouse click the “<b>Info</b>” banner option in order to see the banner output.</p> |  <p>Main Menu: Configuration -&gt; Networking -&gt; Networks</p> <p>Main Menu: Configuration -&gt; Networking -&gt; Networks</p> <table border="1"> <thead> <tr> <th>Network Name</th> <th>Network Type</th> <th>Default</th> <th>Locked</th> <th>Routed</th> <th>VLAN</th> <th>Configured Interfaces</th> <th>Network</th> </tr> </thead> <tbody> <tr> <td>XMI</td> <td>OAM</td> <td>Yes</td> <td>Yes</td> <td>Yes</td> <td>20</td> <td>0</td> <td>10.240.199.128/25</td> </tr> <tr> <td>IMI</td> <td>OAM</td> <td>No</td> <td>Yes</td> <td>Yes</td> <td>21</td> <td>0</td> <td>169.254.2.0/24</td> </tr> </tbody> </table>  | Network Name | Network Type     | Default          | Locked                | Routed            | VLAN        | Configured Interfaces | Network     | XMI         | OAM       | Yes         | Yes         | Yes          | 20          | 0           | 10.240.199.128/25 | IMI         | OAM         | No             | Yes         | Yes         | 21       | 0           | 169.254.2.0/24 |
| Network Name                       | Network Type   | Default  | Locked       | Routed           | VLAN             | Configured Interfaces | Network           |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| XMI                                | OAM  | Yes  | Yes          | Yes              | 20               | 0                     | 10.240.199.128/25 |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| IMI                                | OAM  | No   | Yes          | Yes              | 21               | 0                     | 169.254.2.0/24    |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| <p>9.</p> <input type="checkbox"/> | <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Configuration</b><br/>→ <b>Services</b></p> <p>...as shown on the right.</p>   |  <p>Main Menu: Configuration -&gt; Networking -&gt; Services</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Intra-NE Network</th> <th>Inter-NE Network</th> </tr> </thead> <tbody> <tr> <td>OAM</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Replication</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Signaling</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_Secondary</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_MP_Secondary</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Replication_MP</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>ComAgent</td> <td>Unspecified</td> <td>Unspecified</td> </tr> </tbody> </table> | Name         | Intra-NE Network | Inter-NE Network | OAM                   | Unspecified       | Unspecified | Replication           | Unspecified | Unspecified | Signaling | Unspecified | Unspecified | HA_Secondary | Unspecified | Unspecified | HA_MP_Secondary   | Unspecified | Unspecified | Replication_MP | Unspecified | Unspecified | ComAgent | Unspecified | Unspecified    |
| Name                               | Intra-NE Network   | Inter-NE Network   |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| OAM                                | Unspecified  | Unspecified  |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| Replication                        | Unspecified  | Unspecified  |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| Signaling                          | Unspecified  | Unspecified  |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| HA_Secondary                       | Unspecified  | Unspecified  |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| HA_MP_Secondary                    | Unspecified  | Unspecified  |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| Replication_MP                     | Unspecified  | Unspecified  |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |
| ComAgent                           | Unspecified  | Unspecified  |              |                  |                  |                       |                   |             |                       |             |             |           |             |             |              |             |             |                   |             |             |                |             |             |          |             |                |

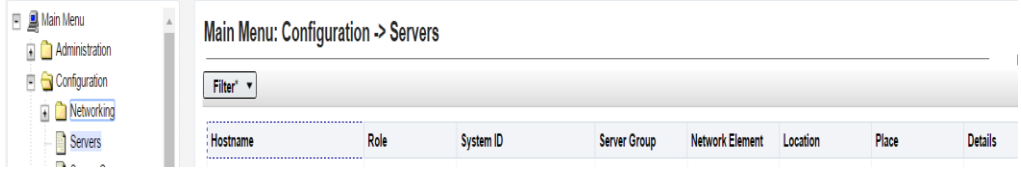
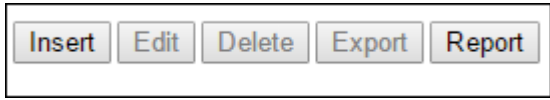
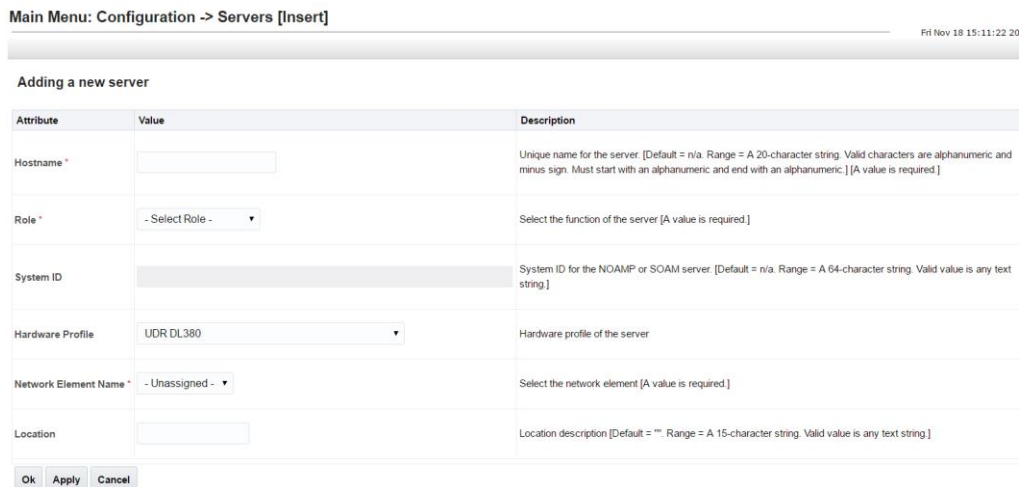
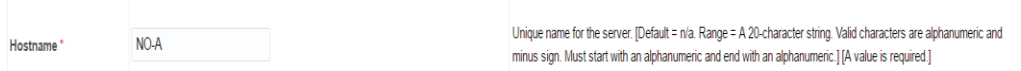
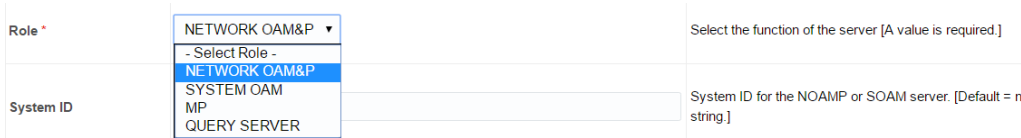
Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step                                       | Procedure   | Result  |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |
|--|---|---|------|------------------|------------------|-----|-------------|-------------|-------------|-------------|-------------|-----------|-------------|-------------|--------------|-------------|-------------|-----------------|-------------|-------------|----------------|-------------|-------------|----------|-------------|-------------|
| <p>10.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1)The user will be presented with the “<b>Services</b>” configuration screen as shown on the right.</p> <p>2)Select the “<b>Edit</b>” dialogue button.</p> | <p><b>Main Menu: Configuration -&gt; Networking -&gt; Services</b></p> <table border="1"> <thead> <tr> <th>Name</th> <th>Intra-NE Network</th> <th>Inter-NE Network</th> </tr> </thead> <tbody> <tr> <td>OAM</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Replication</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Signaling</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_Secondary</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_MP_Secondary</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>Replication_MP</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>ComAgent</td> <td>Unspecified</td> <td>Unspecified</td> </tr> </tbody> </table> <p style="text-align: right; font-size: 2em; color: blue;">1</p> <p style="text-align: right; font-size: 2em; color: blue;">2</p> <p><input type="button" value="Edit"/> <input type="button" value="Report"/></p> | Name | Intra-NE Network | Inter-NE Network | OAM | Unspecified | Unspecified | Replication | Unspecified | Unspecified | Signaling | Unspecified | Unspecified | HA_Secondary | Unspecified | Unspecified | HA_MP_Secondary | Unspecified | Unspecified | Replication_MP | Unspecified | Unspecified | ComAgent | Unspecified | Unspecified |
| Name                                       | Intra-NE Network  | Inter-NE Network  |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |
| OAM  | Unspecified   | Unspecified   |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |
| Replication                                | Unspecified   | Unspecified   |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |
| Signaling                                  | Unspecified   | Unspecified   |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |
| HA_Secondary                               | Unspecified   | Unspecified   |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |
| HA_MP_Secondary                            | Unspecified   | Unspecified   |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |
| Replication_MP                             | Unspecified   | Unspecified   |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |
| ComAgent                                   | Unspecified   | Unspecified   |      |                  |                  |     |             |             |             |             |             |           |             |             |              |             |             |                 |             |             |                |             |             |          |             |             |

**Procedure 14:** Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step                                       | Procedure   | Result   |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
|--|---|--|------|------------------|------------------|-----|-----|-----|-------------|-----|-----|-----------|-------------|-------------|--------------|-----|-----|-----------------|-----|-----|----------------|-----|-----|----------|-----|-----|
| <p>11.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1) Set the services values as shown on the right.</p> <p>2) Select the “<b>Apply</b>” dialogue button.</p> <p>3) Select the “<b>OK</b>” dialogue button in the popup window.</p> |  <p><b>Note:</b> Servers do not need to be restarted if this is a fresh installation.</p> <p><b>Note:</b> ComAgent Service shall be configured to run on Signaling Network. Please configure as shown above and continue. ComAgent Service shall be configured again later as described in Section 0</p> <p>Configure Services on Signaling Network.</p> <p><b>Note:</b> ComAgent Service is used for NOAMP ↔ MP and MP ↔ MP communication.</p>   |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| <p>12.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>The user will be presented with the “<b>Services</b>” configuration screen as shown on the right</p>   |  <table border="1"> <thead> <tr> <th>Name</th> <th>Intra-NE Network</th> <th>Inter-NE Network</th> </tr> </thead> <tbody> <tr> <td>OAM</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>Replication</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>Signaling</td> <td>Unspecified</td> <td>Unspecified</td> </tr> <tr> <td>HA_Secondary</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>HA_MP_Secondary</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>Replication_MP</td> <td>IMI</td> <td>XMI</td> </tr> <tr> <td>ComAgent</td> <td>IMI</td> <td>XMI</td> </tr> </tbody> </table> | Name | Intra-NE Network | Inter-NE Network | OAM | IMI | XMI | Replication | IMI | XMI | Signaling | Unspecified | Unspecified | HA_Secondary | IMI | XMI | HA_MP_Secondary | IMI | XMI | Replication_MP | IMI | XMI | ComAgent | IMI | XMI |
| Name                                       | Intra-NE Network  | Inter-NE Network   |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| OAM  | IMI   | XMI  |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| Replication                                | IMI   | XMI  |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| Signaling                                  | Unspecified   | Unspecified  |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| HA_Secondary                               | IMI   | XMI  |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| HA_MP_Secondary                            | IMI   | XMI  |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| Replication_MP                             | IMI   | XMI  |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| ComAgent                                   | IMI   | XMI  |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |

Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

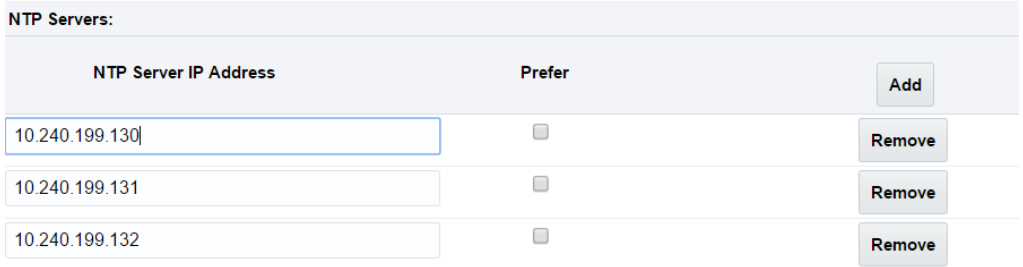
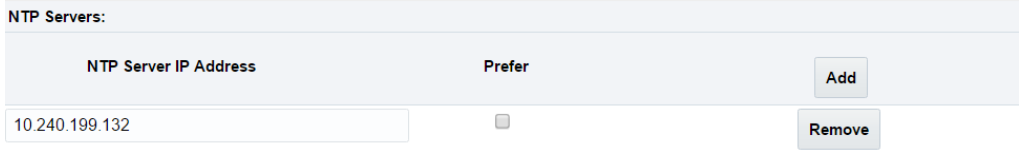
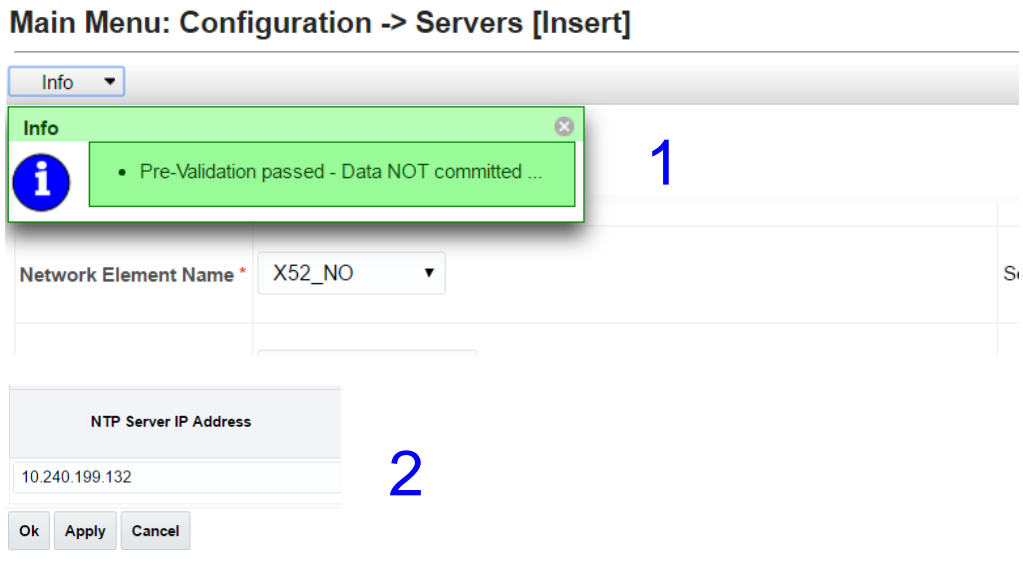
| Step                                | Procedure  | Result   |
|-------------------------------------|--|--|
| <p>13.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p><i>Configuring Server</i></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Configuration</b><br/>→ <b>Servers</b></p> <p>...as shown on the right.</p> |    |
| <p>14.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select the “Insert” dialogue button at the bottom left.</p>   |    |
| <p>15.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user is now presented with the “Adding a new server” configuration screen.</p>  |   |
| <p>16.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Input the assigned “hostname” for the NOAMP-A Server.</p>   |  |
| <p>17.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select “NETWORK OAM&amp;P” for the server “Role” from the pull-down menu.</p>   |  |

Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

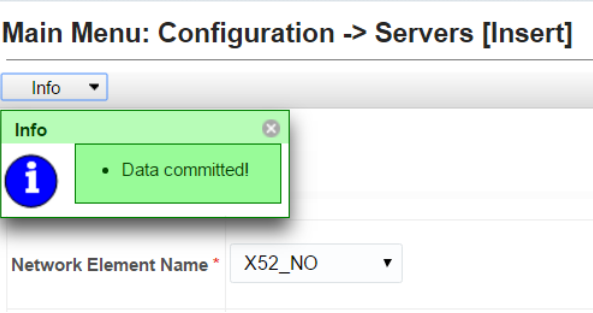
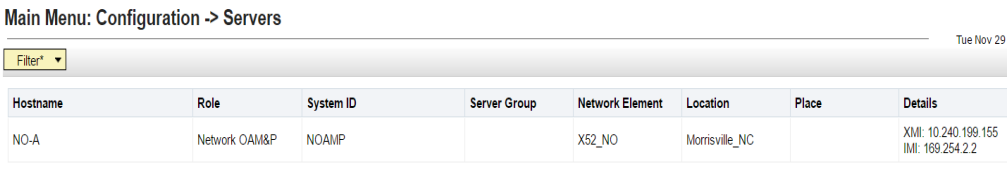
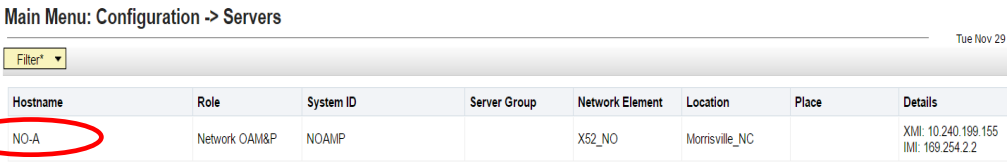
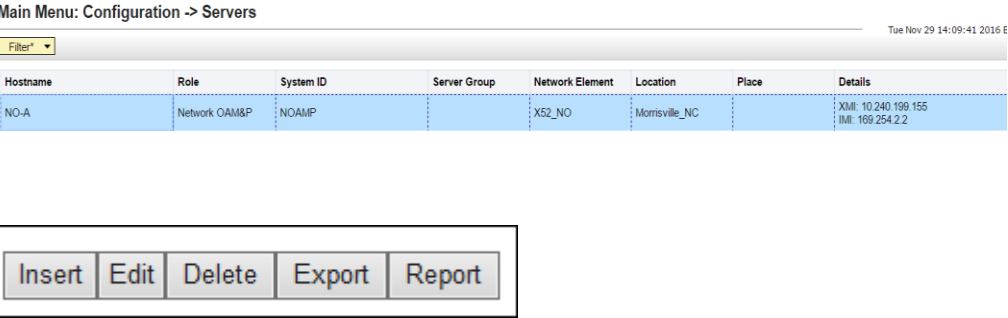
| Step                                | Procedure  | Result  |         |            |           |                         |   |   |                      |  |   |
|-------------------------------------|--|---|---------|------------|-----------|-------------------------|---|---|----------------------|--|---|
| <p>18.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Input the “<b>System ID</b>” for the NOAMP Server.</p>  | <p>System ID <input type="text" value="NOAMP"/> System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]</p>   |         |            |           |                         |   |   |                      |  |   |
| <p>19.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select the correct <b>Hardware Profile</b> from the pull-down menu.</p>   | <p>Select Hardware Profile:</p> <ul style="list-style-type: none"> <li>• <b>UDR DL380for RMS installations</b></li> <li>• <b>BL 460 c-Class Blade for blade installations</b></li> <li>• <b>UDR_NO_Low_Capacity for Virtual NO server installations</b></li> <li>• <b>UDR SO for SO virtual server installations</b> (not used in this procedure)</li> <li>• <b>UDR MP for MP virtual server installations</b> (not used in this procedure)</li> </ul> <p>Hardware Profile <input type="text" value="UDR_NO_LowCapacity"/> Hardware profile of the server</p>   |         |            |           |                         |   |   |                      |  |   |
| <p>20.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select the <b>Network Element Name</b> from the pull-down menu.</p> <p><b>NOTE:</b>After the <i>Network Element Name</i> is selected, the <i>Interfaces</i> fields will be displayed.</p> | <p>Network Element Name * <input type="text" value="X52_NO"/> Select the network element [A value is required.]</p>   |         |            |           |                         |   |   |                      |  |   |
| <p>21.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Enter the site location.</p> <p><b>NOTE:</b>Location is an optional field.</p>  | <p>Location <input type="text" value="Morrisville_NC"/> Location description [Default = "" Range = A 15-character string. Valid value is any text string.]</p>  |         |            |           |                         |   |   |                      |  |   |
| <p>22.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>1) Enter the <b>XMI</b> and <b>IMI</b> IP addresses for the <b>Server</b>.</p> <p>2)Set <b>XMI</b> and <b>IMI</b> Interfaces according to deployment type.</p>                            | <p>Normal Capacity Configuration:</p> <p>Set XMI and IMI Interfaces according to bond0. Check VLAN boxes.</p> <p>XMI (10.240.80.128/26) <input type="text" value="10.240.80.146"/> <input type="text" value="bond0"/> <input checked="" type="checkbox"/> VLAN (3)</p> <p>IMI (10.240.56.192/26) <input type="text" value="10.240.56.197"/> <input type="text" value="bond0"/> <input checked="" type="checkbox"/> VLAN (4)</p> <p>Low Capacity Configuration:</p> <p>OAM Interfaces [At least one interface is required.]:</p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.199.128/25)</td> <td><input type="text" value="10.240.199.155"/></td> <td><input type="text" value="xmi"/> <input type="checkbox"/> VLAN (20)</td> </tr> <tr> <td>IMI (169.254.2.0/24)</td> <td><input type="text" value="169.254.2.2"/></td> <td><input type="text" value="imi"/> <input type="checkbox"/> VLAN (21)</td> </tr> </tbody> </table> <p>Virtual NO on Low Capacity Configurations: set XMI to “xmi”, IMI to “imi”. VLAN boxes are not checked in this case.</p> | Network | IP Address | Interface | XMI (10.240.199.128/25) | <input type="text" value="10.240.199.155"/> | <input type="text" value="xmi"/> <input type="checkbox"/> VLAN (20) | IMI (169.254.2.0/24) | <input type="text" value="169.254.2.2"/> | <input type="text" value="imi"/> <input type="checkbox"/> VLAN (21) |
| Network                             | IP Address   | Interface   |         |            |           |                         |   |   |                      |  |   |
| XMI (10.240.199.128/25)             | <input type="text" value="10.240.199.155"/>  | <input type="text" value="xmi"/> <input type="checkbox"/> VLAN (20)   |         |            |           |                         |   |   |                      |  |   |
| IMI (169.254.2.0/24)                | <input type="text" value="169.254.2.2"/>   | <input type="text" value="imi"/> <input type="checkbox"/> VLAN (21)   |         |            |           |                         |   |   |                      |  |   |



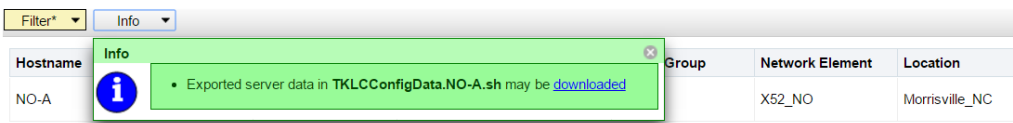
Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step                                       | Procedure  | Result  |                       |        |  |                |                          |            |                |                          |            |                |                          |            |                       |        |  |                |                          |            |
|--|--|---|-----------------------|--------|--|----------------|--------------------------|------------|----------------|--------------------------|------------|----------------|--------------------------|------------|-----------------------|--------|--|----------------|--------------------------|------------|
| <p>23.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>Click the “Add” button under NTP Servers and add the address of the customer supplied NTP server.</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>10.240.199.130</td> <td><input type="checkbox"/></td> <td>Add Remove</td> </tr> <tr> <td>10.240.199.131</td> <td><input type="checkbox"/></td> <td>Add Remove</td> </tr> <tr> <td>10.240.199.132</td> <td><input type="checkbox"/></td> <td>Add Remove</td> </tr> </tbody> </table> <p>Set one or more NTP Server IP Address(es) to customer supplied NTP server(s). It is recommended to have minimum of 3 and up to 4 external NTP servers for reliable functioning of NTP service.</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>10.240.199.132</td> <td><input type="checkbox"/></td> <td>Add Remove</td> </tr> </tbody> </table> <p><b>Note:</b> In case of NOAMP virtual server: Set the NTP Server IP Address to the host server, given as “&lt;TVOE_XML_address&gt;”.</p> | NTP Server IP Address | Prefer |  | 10.240.199.130 | <input type="checkbox"/> | Add Remove | 10.240.199.131 | <input type="checkbox"/> | Add Remove | 10.240.199.132 | <input type="checkbox"/> | Add Remove | NTP Server IP Address | Prefer |  | 10.240.199.132 | <input type="checkbox"/> | Add Remove |
| NTP Server IP Address                      | Prefer   |   |                       |        |  |                |                          |            |                |                          |            |                |                          |            |                       |        |  |                |                          |            |
| 10.240.199.130                             | <input type="checkbox"/>   | Add Remove  |                       |        |  |                |                          |            |                |                          |            |                |                          |            |                       |        |  |                |                          |            |
| 10.240.199.131                             | <input type="checkbox"/>   | Add Remove  |                       |        |  |                |                          |            |                |                          |            |                |                          |            |                       |        |  |                |                          |            |
| 10.240.199.132                             | <input type="checkbox"/>   | Add Remove  |                       |        |  |                |                          |            |                |                          |            |                |                          |            |                       |        |  |                |                          |            |
| NTP Server IP Address                      | Prefer   |   |                       |        |  |                |                          |            |                |                          |            |                |                          |            |                       |        |  |                |                          |            |
| 10.240.199.132                             | <input type="checkbox"/>   | Add Remove  |                       |        |  |                |                          |            |                |                          |            |                |                          |            |                       |        |  |                |                          |            |
| <p>24.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Click the “Apply” dialogue button.</p> |  <p>Main Menu: Configuration -&gt; Servers [Insert]</p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Pre-Validation passed - Data NOT committed ...</li> </ul> <p>1</p> <p>Network Element Name * X52_NO</p> <p>NTP Server IP Address</p> <p>10.240.199.132</p> <p>2</p> <p>Ok Apply Cancel</p>   |                       |        |  |                |                          |            |                |                          |            |                |                          |            |                       |        |  |                |                          |            |

**Procedure 14:** Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step                                       | Procedure   | Result   |              |                 |                |              |   |          |       |         |      |               |       |  |        |                |  |   |
|--|---|--|--------------|-----------------|----------------|--------------|---|----------|-------|---------|------|---------------|-------|--|--------|----------------|--|---|
| <p>25.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>If the values provided match the network ranges assigned to the NOAMP NE, the user will receive a banner information message showing that the data has been validated and committed to the DB.</p>   |    |              |                 |                |              |   |          |       |         |      |               |       |  |        |                |  |   |
| <p>26.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>Applying the Server Configuration File</p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Configuration</b><br/>→ <b>Servers</b></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> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Network OAM&amp;P</td> <td>NOAMP</td> <td></td> <td>X52_NO</td> <td>Morrisville_NC</td> <td></td> <td>XMI: 10.240.199.155<br/>IMI: 169.254.2.2</td> </tr> </tbody> </table>   | Hostname     | Role            | System ID      | Server Group | Network Element                         | Location | Place | Details | NO-A | Network OAM&P | NOAMP |  | X52_NO | Morrisville_NC |  | XMI: 10.240.199.155<br>IMI: 169.254.2.2 |
| Hostname                                   | Role  | System ID  | Server Group | Network Element | Location       | Place        | Details                                 |          |       |         |      |               |       |  |        |                |  |   |
| NO-A                                       | Network OAM&P   | NOAMP  |              | X52_NO          | Morrisville_NC |              | XMI: 10.240.199.155<br>IMI: 169.254.2.2 |          |       |         |      |               |       |  |        |                |  |   |
| <p>27.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>The “<b>Configuration → Servers</b>” screen should now show the newly added <b>Server</b> in the list.</p>   |  <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Network OAM&amp;P</td> <td>NOAMP</td> <td></td> <td>X52_NO</td> <td>Morrisville_NC</td> <td></td> <td>XMI: 10.240.199.155<br/>IMI: 169.254.2.2</td> </tr> </tbody> </table>   | Hostname     | Role            | System ID      | Server Group | Network Element                         | Location | Place | Details | NO-A | Network OAM&P | NOAMP |  | X52_NO | Morrisville_NC |  | XMI: 10.240.199.155<br>IMI: 169.254.2.2 |
| Hostname                                   | Role  | System ID  | Server Group | Network Element | Location       | Place        | Details                                 |          |       |         |      |               |       |  |        |                |  |   |
| NO-A                                       | Network OAM&P   | NOAMP  |              | X52_NO          | Morrisville_NC |              | XMI: 10.240.199.155<br>IMI: 169.254.2.2 |          |       |         |      |               |       |  |        |                |  |   |
| <p>28.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1) Use the cursor to select the <b>Server</b> entry added in <b>Steps 14 - 25</b>.</p> <p>The row containing the desired <b>Server</b> should now be highlighted in <b>BLUE</b>.</p> <p>2) Select the “<b>Export</b>” dialogue button.</p> |  <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Network OAM&amp;P</td> <td>NOAMP</td> <td></td> <td>X52_NO</td> <td>Morrisville_NC</td> <td></td> <td>XMI: 10.240.199.155<br/>IMI: 169.254.2.2</td> </tr> </tbody> </table> <p>Insert Edit Delete Export Report</p> | Hostname     | Role            | System ID      | Server Group | Network Element                         | Location | Place | Details | NO-A | Network OAM&P | NOAMP |  | X52_NO | Morrisville_NC |  | XMI: 10.240.199.155<br>IMI: 169.254.2.2 |
| Hostname                                   | Role  | System ID  | Server Group | Network Element | Location       | Place        | Details                                 |          |       |         |      |               |       |  |        |                |  |   |
| NO-A                                       | Network OAM&P   | NOAMP  |              | X52_NO          | Morrisville_NC |              | XMI: 10.240.199.155<br>IMI: 169.254.2.2 |          |       |         |      |               |       |  |        |                |  |   |

Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step                                | Procedure   | Result  |
|-------------------------------------|---|---|
| <p>29.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user will receive a banner information message showing a download link for the <b>Server</b> configuration data.</p> | <p><b>Main Menu: Configuration -&gt; Servers</b></p>  <p>The configuration file was created and stored in the /var/TKLC/db/filemgmt directory. The configuration file will have a file name like TKLCConfigData.&lt;hostname&gt;.sh.</p>  |
| <p>30.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>1) Access the command prompt.</p> <p>2) Log into the NOAMP-A server as the “admusr” user.</p>                            | <pre>login as: admusr root@10.250.xx.yy's password:&lt;admusr_password&gt; Last login: Mon Jul 30 10:33:19 2012 from 10.250.80.199 [root@pc9040833-no-a ~]#</pre>   |
| <p>31.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Output similar to that shown on the right will appear as the server access the command prompt.</p>                       | <p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>VPATH=/opt/TKLCcomcol/runcm7.2.0:/opt/TKLCcomcol/cm7.2.0 PRODPATH= RELEASE=7.2.0 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC/awpco mmon:/usr/TKLC/awptransportmgr:/usr/TKLC/comagent- gui:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/awpss7:/usr/TKLC/ccl:/usr/TKLC/dpi:/u sr/TKLC/capm/prod/plugins PRODPATH=/opt/comcol/prod RUNID=00 [admusr@hostname81bd5e3b9cc3 ~]\$</pre> |
| <p>32.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Switch to “root” user.</p>   | <pre>[admusr@ pc9040833-no-a ~]\$ su - password: &lt;root_password&gt;</pre>  |


Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step                                | Procedure   | Result  |
|-------------------------------------|---|---|
| <p>33.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Copy the <b>server</b> configuration file to the “<b>/var/tmp</b>” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p> <p><b>NOTE:</b> <i>The server will poll the <b>/var/tmp</b> directory for the presence of the configuration file and automatically execute it when found.</i></p> | <p><b>Example:</b></p> <p>TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre># cp -p /var/TKLC/db/filemgmt/TKLCConfigData.NO-A.sh /var/tmp/TKLCConfigData.sh</pre>   |
| <p>34.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>After the script completes, a broadcast message will be sent to the terminal.</p> <p>Ignore the output shown and press the <b>&lt;ENTER&gt;</b> key to return to the command prompt.</p> <p><b>NOTE:</b> <i>The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.</i></p>        | <p><b>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</b></p> <pre>Broadcast message from root@NO-A (Tue Nov 29 14:15:23 2016):  Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details.  Please remove the USB flash drive if connected and reboot the server. &lt;ENTER&gt;</pre>                    |
| <p>35.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Configure the time zone.</p>   | <pre># set_ini_tz.pl &lt;time zone&gt;</pre> <p><b>Note:</b> The following command example uses America/New_York time zone. Replace, as appropriate, with the time zone you have selected for this installation. For UTC, use “Etc/UTC”. See Appendix P for a list of valid time zones.</p> <pre># set_ini_tz.pl "America/New_York"</pre> |
| <p>36.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Initiate a reboot of the <b>NOAMP Server</b>.</p>  | <pre># init 6</pre>   |

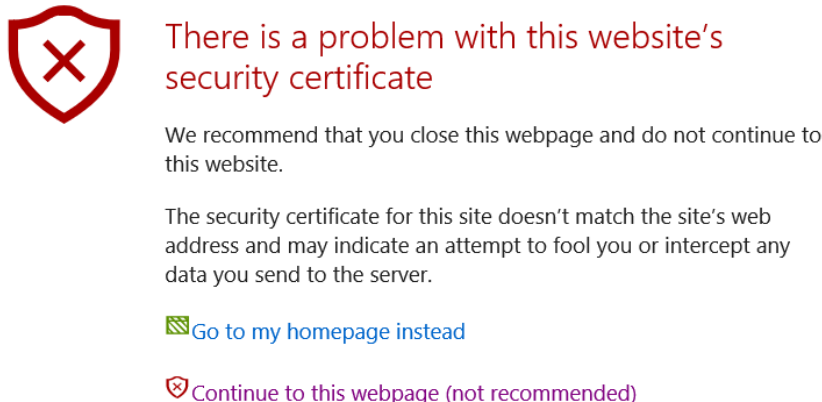

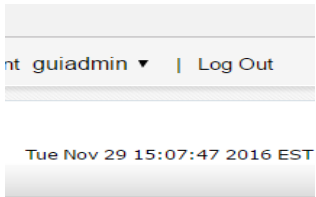
Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step  | Procedure  | Result  |
|---|--|---|
| <p>37.</p> <input type="checkbox"/>   | <p><b>NOAMP Server A:</b></p> <p>Wait until server reboot is done. Then, SSH into the NOAMP-A server.</p> <p>Output similar to that shown on the right may be observed</p> | <p>Wait about 9 minutes until the server reboot is done.</p> <p>Using an SSH client such as putty, ssh to the NOAMP-A server.</p> <pre>login as: admusr root@10.250.xx.yy's password:&lt;admusr_password&gt; Last login: Mon Jul 30 10:33:19 2012 from 10.250.80.199</pre> <p>Note: If the server isn't up, wait a few minutes and re-enter the <code>ssh</code> command. You can also try running the “ping” command to see if the server is up.</p> |
| <p>38.</p> <input type="checkbox"/>   | <p><b>NOAMP Server A:</b></p> <p>Output similar to that shown on the right will appear as the server access the command prompt.</p>  | <p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>VPATH=/opt/TKLCcomcol/runcm7.2.0:/opt/TKLCcomcol/cm7.2.0 PRODPATH= RELEASE=7.2.0 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC/awpco mmon:/usr/TKLC/awptransportmgr:/usr/TKLC/comagent- gui:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/awpss7:/usr/TKLC/ccl:/usr/TKLC/dpi:/u sr/TKLC/capm/prod/plugins PRODPATH=/opt/comcol/prod RUNID=00 [admusr@NO-A ~]\$</pre>   |
| <p>39.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Switch to “root” user.</p>  | <pre>[admusr@ pc9040833-no-a ~]\$ su - password: &lt;root_password&gt;</pre>  |

Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step   | Procedure  | Result   |        |       |      |       |       |        |        |       |        |        |               |              |   |   |     |      |     |       |       |       |               |              |   |   |     |      |     |       |       |       |
|--|--|--|--------|-------|------|-------|-------|--------|--------|-------|--------|--------|---------------|--------------|---|---|-----|------|-----|-------|-------|-------|---------------|--------------|---|---|-----|------|-----|-------|-------|-------|
| <p>40.</p> <p><input type="checkbox"/></p>   | <p><b>NOAMP Server A:</b></p> <p>Verify that the <b>XMI and IMI IP addresses</b> entered in <b>Step 22</b> have been applied</p> <p><b>NOTE:</b> <i>The server's XMI and IMI addresses can be verified by reviewing the server configuration through the Oracle Communications User Data Repository GUI.</i></p> <p><b>i.e.</b><br/> <b>Main Menu</b><br/>                     → <b>Configuration</b><br/>                     → <b>Servers</b></p> <p><i>Scroll to line entry containing the server's hostname.</i></p> | <pre># ifconfig  grep in  grep -v inet6</pre> <p>Example with bond:</p> <pre>[root@NO-A ~]# ifconfig  grep in  grep -v inet6 bond0.3  Link encap:Ethernet  HWaddr F0:92:1C:18:59:10           inet addr:10.250.80.146  Bcast:10.250.80.191  Mask:255.255.255.192 bond0.4  Link encap:Ethernet  HWaddr F0:92:1C:18:59:10           inet addr:10.250.56.197  Bcast:10.250.56.255  Mask:255.255.255.192</pre> <p>Example with xmi/imi</p> <pre>[root@NO-A ~]# ifconfig  grep in  grep -v inet6 control  Link encap:Ethernet  HWaddr 02:AB:D0:18:5F:73           inet addr:192.168.1.9  Bcast:192.168.1.255  Mask:255.255.255.0 imi      Link encap:Ethernet  HWaddr 02:71:6A:04:F7:37           inet addr:169.254.2.2  Bcast:169.254.2.255  Mask:255.255.255.0 lo       Link encap:Local Loopback           inet addr:127.0.0.1  Mask:255.0.0.0 xmi      Link encap:Ethernet  HWaddr 02:0F:AF:52:FB:BB           inet addr:10.240.199.155  Bcast:10.240.199.255  Mask:255.255.255.128</pre> |        |       |      |       |       |        |        |       |        |        |               |              |   |   |     |      |     |       |       |       |               |              |   |   |     |      |     |       |       |       |
| <p>41.</p> <p><input type="checkbox"/></p>   | <p><b>NOAMP Server A:</b></p> <p>Use the “<b>ntpq</b>” command to verify that the server has connectivity to the assigned Primary (and Secondary if one was provided) NTP server(s).</p>   | <pre># ntpq -np</pre> <table border="1"> <thead> <tr> <th>remote</th> <th>refid</th> <th>st</th> <th>t</th> <th>when</th> <th>poll</th> <th>reach</th> <th>delay</th> <th>offset</th> <th>jitter</th> </tr> </thead> <tbody> <tr> <td>*10.250.32.10</td> <td>192.5.41.209</td> <td>2</td> <td>u</td> <td>651</td> <td>1024</td> <td>377</td> <td>0.339</td> <td>0.583</td> <td>0.048</td> </tr> <tr> <td>+10.250.32.51</td> <td>192.5.41.209</td> <td>2</td> <td>u</td> <td>656</td> <td>1024</td> <td>377</td> <td>0.416</td> <td>0.641</td> <td>0.086</td> </tr> </tbody> </table>   | remote | refid | st   | t     | when  | poll   | reach  | delay | offset | jitter | *10.250.32.10 | 192.5.41.209 | 2 | u | 651 | 1024 | 377 | 0.339 | 0.583 | 0.048 | +10.250.32.51 | 192.5.41.209 | 2 | u | 656 | 1024 | 377 | 0.416 | 0.641 | 0.086 |
| remote   | refid  | st   | t      | when  | poll | reach | delay | offset | jitter |       |        |        |               |              |   |   |     |      |     |       |       |       |               |              |   |   |     |      |     |       |       |       |
| *10.250.32.10  | 192.5.41.209   | 2  | u      | 651   | 1024 | 377   | 0.339 | 0.583  | 0.048  |       |        |        |               |              |   |   |     |      |     |       |       |       |               |              |   |   |     |      |     |       |       |       |
| +10.250.32.51  | 192.5.41.209   | 2  | u      | 656   | 1024 | 377   | 0.416 | 0.641  | 0.086  |       |        |        |               |              |   |   |     |      |     |       |       |       |               |              |   |   |     |      |     |       |       |       |
| <div style="display: flex; align-items: center;">  <p><b>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</b></p> <ul style="list-style-type: none"> <li>• Have the customer IT group provide a network path from the OAM server IP to the assigned NTP IP addresses.</li> </ul> <p><b>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 36.</b></p> </div> |  |  |        |       |      |       |       |        |        |       |        |        |               |              |   |   |     |      |     |       |       |       |               |              |   |   |     |      |     |       |       |       |
| <p>42.</p> <p><input type="checkbox"/></p>   | <p><b>NOAMP Server A:</b></p> <p>Execute a “<b>alarmMgr</b>” to verify the current health of the server</p>  | <pre># alarmMgr --alarmStatus</pre> <p>NOTE: This command should return no output on a healthy system.</p>   |        |       |      |       |       |        |        |       |        |        |               |              |   |   |     |      |     |       |       |       |               |              |   |   |     |      |     |       |       |       |

Procedure 14: Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

| Step  | Procedure  | Result  |
|---|--|---|
| <p>43.</p> <input type="checkbox"/>             | <p><b>NOAMP Server A:</b></p> <p>Exit the SSH session for the NOAMP-A server</p>   | <pre># exit</pre>   |
| <p>44.</p> <input type="checkbox"/>             | <p><b>NOAMP Server A:</b></p> <p>Verify that you can log back into the GUI.</p> <p>Launch an approved web browser and connect to the NOAMP Server A IP address.</p> <p><b>NOTE:</b>If presented with the “security certificate” warning screen shown to the right, <b>choose the following option:</b></p> <p><b>“Continue to this website (not recommended)”.</b></p> |  <p>The image shows a security certificate warning from a web browser. It features a red shield icon with a white 'X' inside. The text reads: "There is a problem with this website's security certificate". Below this, it says: "We recommend that you close this webpage and do not continue to this website." and "The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server." At the bottom, there are two buttons: "Go to my homepage instead" (with a green checkmark icon) and "Continue to this webpage (not recommended)" (with a red shield icon).</p>  |
| <p>45.</p> <input type="checkbox"/>             | <p><b>NOAMP Server A:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>  |  <p>The image shows the Oracle System Login page. At the top is the Oracle logo. Below it, the text reads "Oracle System Login" and "Fri Nov 18 14:55:38 2016 EST". The main content is a "Log In" form with the instruction "Enter your username and password to log in". The form has fields for "Username:" and "Password:", a "Change password" checkbox, and a "Log In" button. Below the form, it says "Welcome to the Oracle System Login." and "This application is designed to work with most modern HTML5 compliant browsers and uses both JavaScript and cookies. Please refer to the Oracle Software Web Browser Support Policy for details." At the bottom, it says "Unauthorized access is prohibited." and "Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners. Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved."</p> |
| <p>46.</p> <input type="checkbox"/>             | <p><b>NOAMP Server A:</b></p> <p>Click the “Logout” link on the server GUI..</p>   |  <p>The image shows a user menu bar from the GUI. It displays the user name "nt guidaadmin" with a dropdown arrow, followed by a vertical bar and the text "Log Out". Below this, the date and time "Tue Nov 29 15:07:47 2016 EST" are shown.</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |   |

## 8.2 Create Configuration for Remaining Servers (All Sites)

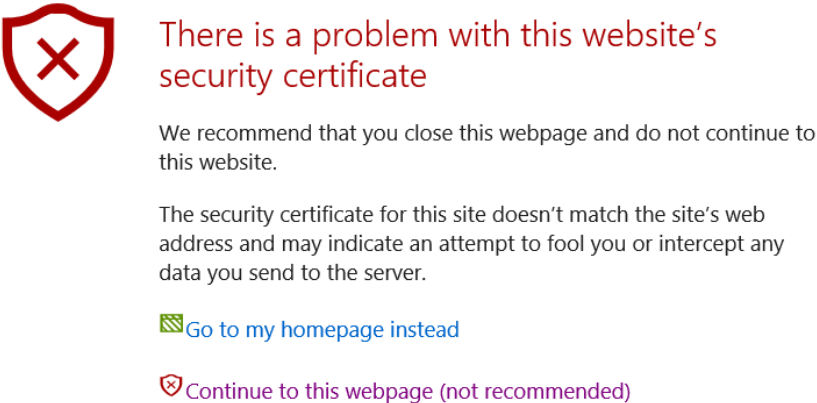

This procedure is used to create and configure all Oracle Communications User Data Repository Servers (Primary and DR Servers) except the first NOAMP-A server.

**Requirements:**

- NOAMP, SOAM and MP servers have been installed successfully by executing Fast Deployment

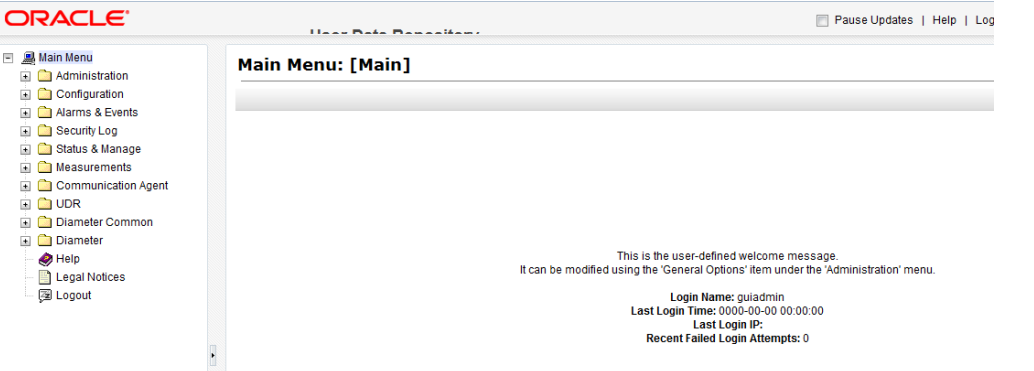
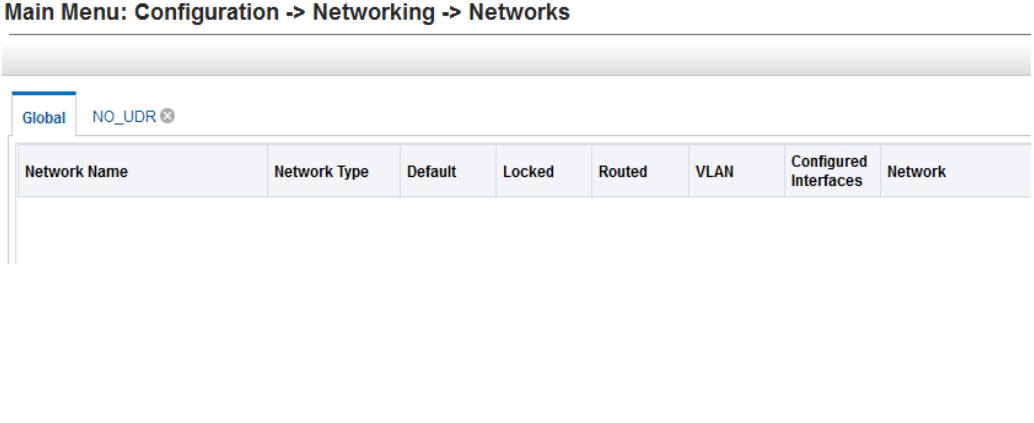
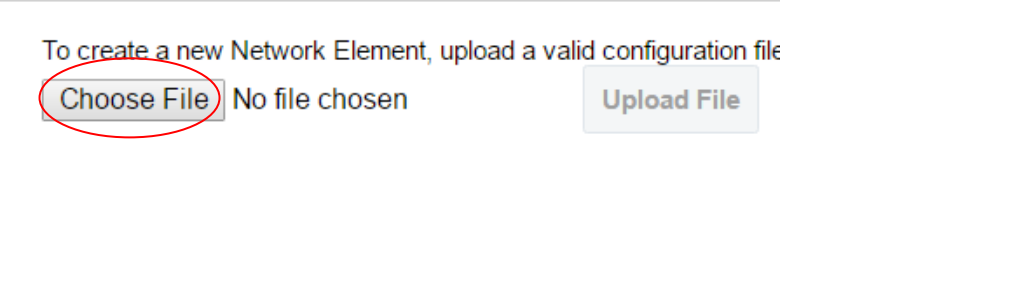
Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

### Procedure 15: Create Configuration for Remaining Servers

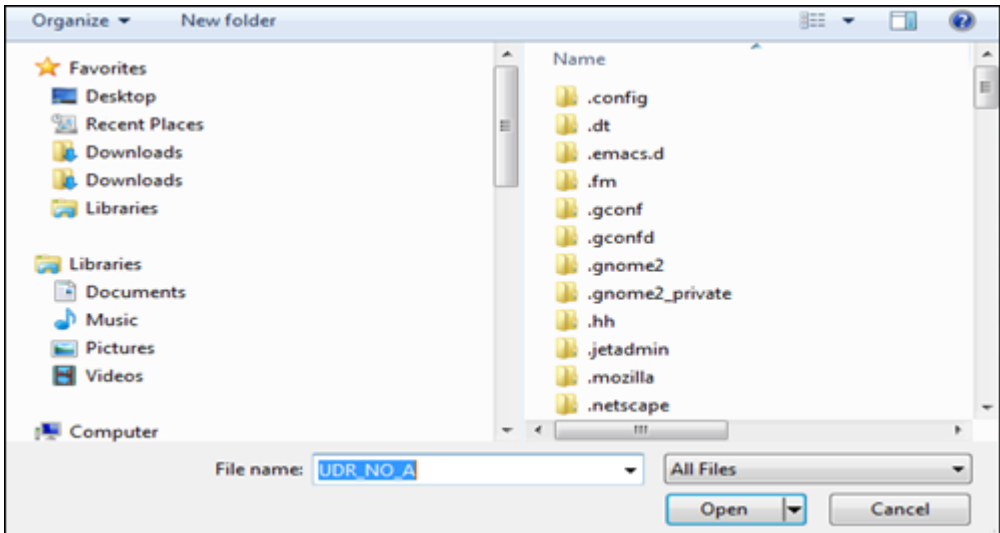
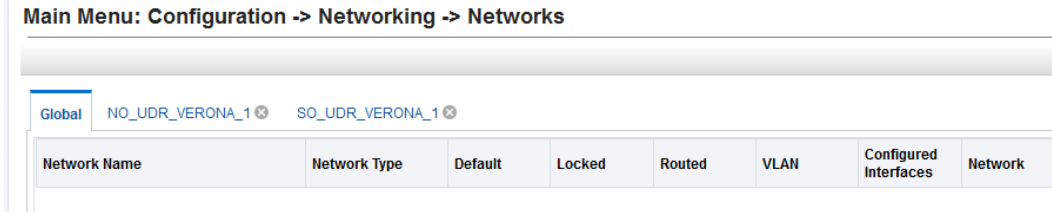
| Step   | Procedure   | Result   |
|--|---|--|
| <p>1.</p> <input type="checkbox"/>   | <p><b>NOAMP Server A:</b></p> <p>Launch an approved web browser and connect to the NOAMP Server A IP address</p> <p><b>NOTE:</b> If presented with the security warning screen shown to the right, choose the following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



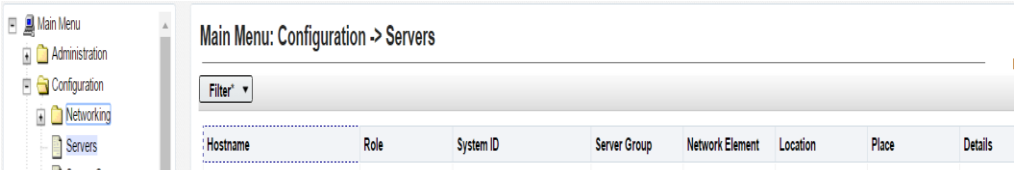
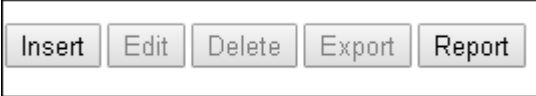
Procedure 15: Create Configuration for Remaining Servers

| Step  | Procedure   | Result   |
|---|---|--|
| <p>3.</p> <p><input type="checkbox"/></p>   | <p><b>NOAMP Server A:</b></p> <p>The user should be presented the Oracle Communications User Data Repository Main Menu as shown on the right.</p>   |    |
| <p><b>For steps 4 – 8 add the remaining Network Elements one at a time. This includes the SO network Element for the Primary site and the DR elements (NO and SO) if present. (DR elements can be uploaded during DR install)</b></p> |   |  |
| <p>4.</p> <p><input type="checkbox"/></p>   | <p><b>NOAMP Server A:</b></p> <p><i>Configuring Network Element</i></p> <p>Select...</p> <p><b>Main Menu</b><br/> <b>→ Configuration</b><br/> <b>→ Networking → Networks</b></p> <p>...as shown on the right.</p> |   |
| <p>5.</p> <p><input type="checkbox"/></p>   | <p><b>NOAMP Server A:</b></p> <p>From the <b>Configuration / Network Elements</b> screen...</p> <p>Select the <b>“Choose File”</b> dialogue button (scroll to bottom right corner of screen).</p>                 |  |

Procedure 15: Create Configuration for Remaining Servers

| Step  | Procedure   | Result   |
|---|---|--|
| <p>6.</p> <input type="checkbox"/>  | <p><b>NOAMP Server A:</b></p> <p><b>Note:</b> This step assumes that the xml files were previously prepared, as described in Appendix N.</p> <p>1) Select the location containing the site .xml file.</p> <p>2) Select the .xml file and click the “Open” dialogue button.</p>  |    |
| <p>7.</p> <input type="checkbox"/>  | <p><b>NOAMP Server A:</b></p> <p>Select the “Upload File” dialogue button (bottom right corner of screen).</p>  | <p>To create a new Network Element, upload a valid configuration file:</p> <p><input type="button" value="Choose File"/> UDR_NO_x52.xml <input type="button" value="Upload File"/></p> |
| <p>8.</p> <input type="checkbox"/>  | <p><b>NOAMP Server A:</b></p> <p>If the values in the .xml file pass validation rules, the user receives a banner information message showing that the data has been successfully committed to the DB.</p> <p><b>Note:</b> You may have to left mouse click the “Info” banner option in order to see the banner output.</p> |    |
| <p><b>Note:</b> The following steps need to be run for all servers EXCEPT the first NOAMP-A server. These steps include a check box for NOAMP-A server. That check box is only referring to NOAMP-A servers that are not at the primary provisioning site, such as the NOAMP-A server at the Disaster Recovery (DR) site.</p> |   |  |

Procedure 15: Create Configuration for Remaining Servers

| Step                                       | Procedure  | Result   |
|--|--|--|
| <p>9.</p> <p><input type="checkbox"/></p>  | <p><b>NOAMP Server A:</b></p> <p><i>Configuring Server</i></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Configuration</b><br/>→ <b>Servers</b></p> <p>...as shown on the right.</p> |  <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> |
| <p>10.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>Select the “<b>Insert</b>” dialogue button at the bottom left.</p>  |  <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p>  |

Procedure 15: Create Configuration for Remaining Servers

| Step                                       | Procedure   | Result  |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
|--|---|---|-----------|-------|-------------|------------|----------------------|--|--------|-----------------|--|-----------|----------------------|---|------------------|-----------|--------------------------------|------------------------|----------------|---|----------|----------------------|--|
| <p>11.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>The user is now presented with the “Adding a new server” configuration screen.</p> | <p>Main Menu: Configuration -&gt; Servers [Insert] <span style="float: right;">Fri Nov 18 15:11:22 20</span></p> <hr/> <p>Adding a new server</p> <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td><input type="text"/></td> <td>Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]</td> </tr> <tr> <td>Role *</td> <td>- Select Role -</td> <td>Select the function of the server [A value is required.]</td> </tr> <tr> <td>System ID</td> <td><input type="text"/></td> <td>System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]</td> </tr> <tr> <td>Hardware Profile</td> <td>UDR DL380</td> <td>Hardware profile of the server</td> </tr> <tr> <td>Network Element Name *</td> <td>- Unassigned -</td> <td>Select the network element [A value is required.]</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>Ok Apply Cancel</p> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> | Attribute | Value | Description | Hostname * | <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.] [A value is required.] | Role * | - Select Role - | Select the function of the server [A value is required.] | System ID | <input type="text"/> | System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.] | Hardware Profile | UDR DL380 | Hardware profile of the server | Network Element Name * | - Unassigned - | Select the network element [A value is required.] | Location | <input type="text"/> | Location description [Default = "" Range = A 15-character string. Valid value is any text string.] |
| Attribute                                  | Value   | Description   |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| Hostname *                                 | <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.] [A value is required.]  |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| Role *                                     | - Select Role -   | Select the function of the server [A value is required.]  |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| System ID                                  | <input type="text"/>  | System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]   |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| Hardware Profile                           | UDR DL380   | Hardware profile of the server  |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| Network Element Name *                     | - Unassigned -  | Select the network element [A value is required.]   |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| Location                                   | <input type="text"/>  | Location description [Default = "" Range = A 15-character string. Valid value is any text string.]  |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| <p>12.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>Input the assigned “hostname” for the server.</p>                                  | <table border="1"> <thead> <tr> <th>Attribute</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Hostname *</td> <td>NO-B</td> <td>Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p>  | Attribute | Value | Description | Hostname * | NO-B                 | Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.] |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| Attribute                                  | Value   | Description   |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |
| Hostname *                                 | NO-B  | Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.] [A value is required.]  |           |       |             |            |                      |  |        |                 |  |           |                      |   |                  |           |                                |                        |                |   |          |                      |  |

Procedure 15: Create Configuration for Remaining Servers

| Step                                | Procedure   | Result  |
|-------------------------------------|---|---|
| <p>13.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select the appropriate server <b>“Role”</b> from the pull-down menu.</p>                               | <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Role *</p> <div style="border: 1px solid black; padding: 2px;"> <p>NETWORK OAM&amp;P ▾</p> <p>- Select Role -</p> <p style="background-color: #e0e0e0;">NETWORK OAM&amp;P</p> <p>SYSTEM OAM</p> <p>MP</p> <p>QUERY SERVER</p> </div> </div> <div style="width: 60%;"> <p>Select the function of the server [A value is required.]</p> <hr/> <p>System ID</p> <p>System ID for the NOAMP or SOAM server. [Default = n string.]</p> </div> </div> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p> <input type="checkbox"/> NOAMP-A (DR Site only)               <input type="checkbox"/> NOAMP-B               <input type="checkbox"/> SOAM-A               <input type="checkbox"/> SOAM-B         </p> <p> <input type="checkbox"/> MP-1               <input type="checkbox"/> MP-2               <input type="checkbox"/> MP-3               <input type="checkbox"/> MP-4         </p> <p> <input type="checkbox"/> MP-5 (Gen-9 normal capacity)         </p> <p> <input type="checkbox"/> MP-6 (Gen-9 normal capacity)         </p> |
| <p>14.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Input the <b>“System ID”</b> for the server.</p> <p>NOTE: <i>System ID is not required for MP.</i></p> | <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>System ID</p> <div style="border: 1px solid gray; padding: 2px;">NOAMP</div> </div> <div style="width: 60%;"> <p>System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]</p> </div> </div> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p> <input type="checkbox"/> NOAMP-A (DR Site only)               <input type="checkbox"/> NOAMP-B               <input type="checkbox"/> SOAM-A               <input type="checkbox"/> SOAM-B         </p> <p> <input type="checkbox"/> MP-1               <input type="checkbox"/> MP-2               <input type="checkbox"/> MP-3               <input type="checkbox"/> MP-4         </p> <p> <input type="checkbox"/> MP-5 (Gen-9 normal capacity)         </p> <p> <input type="checkbox"/> MP-6 (Gen-9 normal capacity)         </p>  |

Procedure 15: Create Configuration for Remaining Servers

| Step                                | Procedure   | Result   |
|-------------------------------------|---|--|
| <p>15.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select the correct <b>Hardware Profile</b> from the pull-down menu.</p>  | <p>Select Hardware Profile:</p> <ul style="list-style-type: none"> <li>• <b>UDR DL380for RMS installations</b></li> <li>• <b>BL460 HP c-Class Blade NOAMP installations</b></li> <li>• <b>UDR_NO_LowCapacity for NO virtual server installations</b></li> <li>• <b>UDRSO for SO virtual server installations</b></li> <li>• <b>UDR MP for MP virtual server installations</b></li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p>Hardware Profile <input type="text" value="UDR_NO_LowCapacity"/> Hardware profile of the server</p> </div> <ul style="list-style-type: none"> <li>• "Check off" the associated Check Box as addition is completed for each Server.</li> </ul> <p> <input type="checkbox"/> NOAMP-A (DR Site only)             <input type="checkbox"/> NOAMP-B             <input type="checkbox"/> SOAM-A             <input type="checkbox"/> SOAM-B         </p> <p> <input type="checkbox"/> MP-1             <input type="checkbox"/> MP-2             <input type="checkbox"/> MP-3             <input type="checkbox"/> MP-4         </p> <p> <input type="checkbox"/> MP-5 (Gen-9 normal capacity)         </p> <p> <input type="checkbox"/> MP-6 (Gen-9 normal capacity)         </p> |
| <p>16.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select the <b>Network Element Name</b> from the pull-down menu.</p> <p>NOTE: After the Network Element Name is selected, the Interfaces fields will be displayed.</p> <p>NOTE: NO and DR pairs will have their own Network element as per Appendix N. SO pairs will also have their own Network Element which they share with their associated MP.</p> | <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p>Network Element Name * <input type="text" value="X52_NO"/> Select the network element [A value is required.]</p> </div> <ul style="list-style-type: none"> <li>• "Check off" the associated Check Box as addition is completed for each Server.</li> </ul> <p> <input type="checkbox"/> NOAMP-A (DR Site only)             <input type="checkbox"/> NOAMP-B             <input type="checkbox"/> SOAM-A             <input type="checkbox"/> SOAM-B         </p> <p> <input type="checkbox"/> MP-1             <input type="checkbox"/> MP-2             <input type="checkbox"/> MP-3             <input type="checkbox"/> MP-4         </p> <p> <input type="checkbox"/> MP-5 (Gen-9 normal capacity)         </p> <p> <input type="checkbox"/> MP-6 (Gen-9 normal capacity)         </p>   |

**Procedure 15: Create Configuration for Remaining Servers**

| Step   | Procedure   | Result   |
|--|---|--|
| <p><b>17.</b></p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Enter the site location.</p> <p><b>NOTE:</b> <i>Location is an optional field.</i></p> | <div style="border: 1px solid #ccc; padding: 5px;"> <p>Location <input type="text" value="Morrisville_NC"/> Location description [Default = "" Range = A 15-character string. Valid value is any text string.]</p> </div> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p> <input type="checkbox"/> NOAMP-A (DR Site only)             <input type="checkbox"/> NOAMP-B             <input type="checkbox"/> SOAM-A             <input type="checkbox"/> SOAM-B         </p> <p> <input type="checkbox"/> MP-1             <input type="checkbox"/> MP-2             <input type="checkbox"/> MP-3             <input type="checkbox"/> MP-4         </p> <p> <input type="checkbox"/> MP-5 (Gen-9 normal capacity)         </p> <p> <input type="checkbox"/> MP-6 (Gen-9 normal capacity)         </p> |

Procedure 15: Create Configuration for Remaining Servers

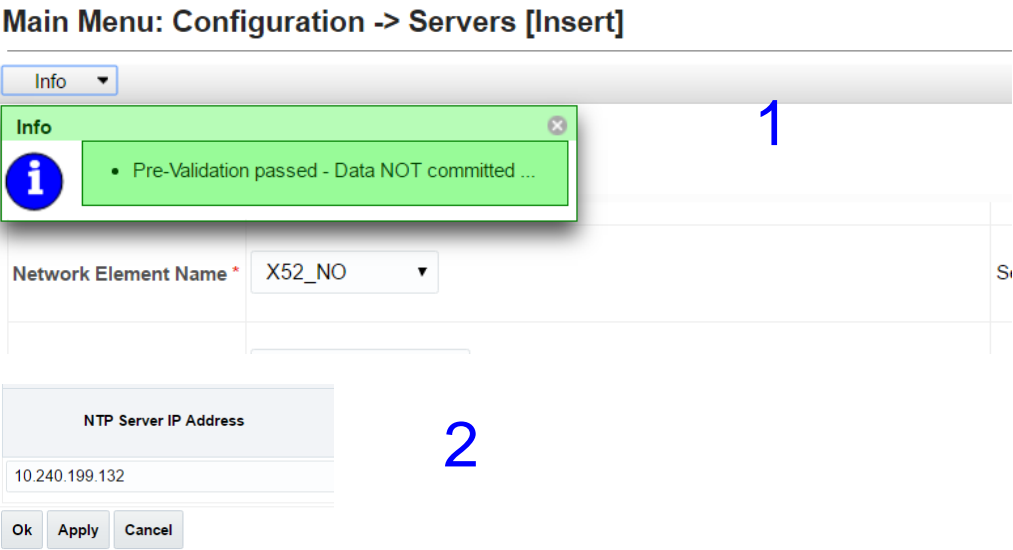
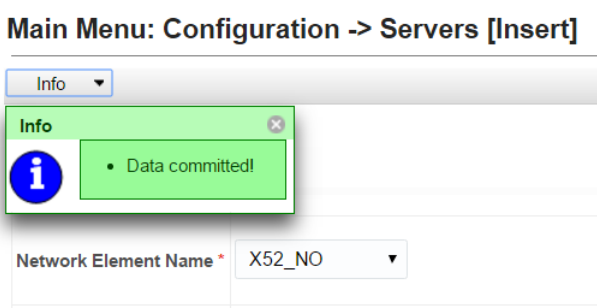
| Step                                       | Procedure   | Result  |         |            |           |                        |                      |                                       |                        |                      |                                       |         |            |           |                         |   |  |                      |  |  |
|--|---|---|---------|------------|-----------|------------------------|----------------------|---------------------------------------|------------------------|----------------------|---------------------------------------|---------|------------|-----------|-------------------------|---|--|----------------------|--|--|
| <p>18.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1) Enter the <b>XMI</b> and <b>IMI</b> IP addresses for the <b>Server</b>.</p> <p>2) Set the <b>XMI</b> and <b>IMI</b> Interface according to deployment type.</p> | <p>Normal Capacity C-Class Configuration:</p> <ul style="list-style-type: none"> <li>• SO: Set XMI to “xmi” and set IMI to “imi”. VLAN boxes are <i>not</i> checked.</li> <li>• MP: Set XMI to “xmi” and set IMI to “imi”. VLAN boxes are <i>not</i> checked.</li> <li>• NOAMP: Set both XMI and IMI to bond0. Check all VLAN boxes.</li> </ul> <div> <p><b>Interfaces:</b></p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.37.128/26)</td> <td><input type="text"/></td> <td>xmi <input type="checkbox"/> VLAN (3)</td> </tr> <tr> <td>IMI (10.240.37.192/27)</td> <td><input type="text"/></td> <td>imi <input type="checkbox"/> VLAN (4)</td> </tr> </tbody> </table> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p> </div> <p>Low Capacity Systems:</p> <ul style="list-style-type: none"> <li>• SO: Set XMI to “xmi” and set IMI to “imi”. VLAN boxes are <i>not</i> checked.</li> <li>• MP: Set XMI to “xmi” and set IMI to “imi”. VLAN boxes are <i>not</i> checked.</li> <li>• NOAMP: Set XMI to “xmi” and set IMI to “imi”. VLAN boxes are <i>not</i> checked.</li> </ul> <div> <p><b>OAM Interfaces [At least one interface is required.]:</b></p> <table border="1"> <thead> <tr> <th>Network</th> <th>IP Address</th> <th>Interface</th> </tr> </thead> <tbody> <tr> <td>XMI (10.240.199.128/25)</td> <td><input type="text" value="10.240.199.155"/></td> <td>xmi <input type="checkbox"/> VLAN (20)</td> </tr> <tr> <td>IMI (169.254.2.0/24)</td> <td><input type="text" value="169.254.2.2"/></td> <td>imi <input type="checkbox"/> VLAN (21)</td> </tr> </tbody> </table> </div> <p>“Check off” the associated Check Box as addition is completed for each Server.</p> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> | Network | IP Address | Interface | XMI (10.240.37.128/26) | <input type="text"/> | xmi <input type="checkbox"/> VLAN (3) | IMI (10.240.37.192/27) | <input type="text"/> | imi <input type="checkbox"/> VLAN (4) | Network | IP Address | Interface | XMI (10.240.199.128/25) | <input type="text" value="10.240.199.155"/> | xmi <input type="checkbox"/> VLAN (20) | IMI (169.254.2.0/24) | <input type="text" value="169.254.2.2"/> | imi <input type="checkbox"/> VLAN (21) |
| Network                                    | IP Address  | Interface   |         |            |           |                        |                      |                                       |                        |                      |                                       |         |            |           |                         |   |  |                      |  |  |
| XMI (10.240.37.128/26)                     | <input type="text"/>  | xmi <input type="checkbox"/> VLAN (3)   |         |            |           |                        |                      |                                       |                        |                      |                                       |         |            |           |                         |   |  |                      |  |  |
| IMI (10.240.37.192/27)                     | <input type="text"/>  | imi <input type="checkbox"/> VLAN (4)   |         |            |           |                        |                      |                                       |                        |                      |                                       |         |            |           |                         |   |  |                      |  |  |
| Network                                    | IP Address  | Interface   |         |            |           |                        |                      |                                       |                        |                      |                                       |         |            |           |                         |   |  |                      |  |  |
| XMI (10.240.199.128/25)                    | <input type="text" value="10.240.199.155"/>   | xmi <input type="checkbox"/> VLAN (20)  |         |            |           |                        |                      |                                       |                        |                      |                                       |         |            |           |                         |   |  |                      |  |  |
| IMI (169.254.2.0/24)                       | <input type="text" value="169.254.2.2"/>  | imi <input type="checkbox"/> VLAN (21)  |         |            |           |                        |                      |                                       |                        |                      |                                       |         |            |           |                         |   |  |                      |  |  |



Procedure 15: Create Configuration for Remaining Servers

| Step   | Procedure  | Result  |                       |        |  |  |                          |                                    |   |                          |                                       |   |                          |                                       |                       |        |  |   |                          |                                       |
|--|--|---|-----------------------|--------|--|--|--------------------------|------------------------------------|---|--------------------------|---------------------------------------|---|--------------------------|---------------------------------------|-----------------------|--------|--|---|--------------------------|---------------------------------------|
| <p>19.</p> <p><input type="checkbox"/></p>   | <p><b>NOAMP Server A:</b></p> <p>Click the “Add” button under NTP Servers and add the address(s) of the NTP server(s).</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><input type="text" value="10.240.199.130 "/></td> <td><input type="checkbox"/></td> <td><input type="button" value="Add"/></td> </tr> <tr> <td><input type="text" value="10.240.199.131"/></td> <td><input type="checkbox"/></td> <td><input type="button" value="Remove"/></td> </tr> <tr> <td><input type="text" value="10.240.199.132"/></td> <td><input type="checkbox"/></td> <td><input type="button" value="Remove"/></td> </tr> </tbody> </table> <p>NTP Server according to server type:</p> <ul style="list-style-type: none"> <li>• <i>NOAMP</i>: Set one or more NTP Server IP Address(es) to customer supplied NTP server(s). It is recommended to have minimum of 3 and up to 4 external NTP servers for reliable functioning of NTP service.</li> <li>• <i>SOAM and MP</i>: Set the NTP Server IP Address to the host server, given as “&lt;TVOE_XML_address&gt;” in <i>Appendix L Configure TVOE Network</i>.</li> </ul> <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><input type="text" value="10.240.199.132"/></td> <td><input type="checkbox"/></td> <td><input type="button" value="Remove"/></td> </tr> </tbody> </table> <p><b>Note:</b> In case of NOAMP virtual server: Set the NTP Server IP Address to the host server, given as “&lt;TVOE_XML_address&gt;” in <i>Appendix L Configure TVOE Network</i>.</p> <p>“Check off” the associated Check Box as addition is completed for each Server.</p> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> | NTP Server IP Address | Prefer |  | <input type="text" value="10.240.199.130 "/> | <input type="checkbox"/> | <input type="button" value="Add"/> | <input type="text" value="10.240.199.131"/> | <input type="checkbox"/> | <input type="button" value="Remove"/> | <input type="text" value="10.240.199.132"/> | <input type="checkbox"/> | <input type="button" value="Remove"/> | NTP Server IP Address | Prefer |  | <input type="text" value="10.240.199.132"/> | <input type="checkbox"/> | <input type="button" value="Remove"/> |
| NTP Server IP Address                        | Prefer   |   |                       |        |  |  |                          |                                    |   |                          |                                       |   |                          |                                       |                       |        |  |   |                          |                                       |
| <input type="text" value="10.240.199.130 "/> | <input type="checkbox"/>   | <input type="button" value="Add"/>  |                       |        |  |  |                          |                                    |   |                          |                                       |   |                          |                                       |                       |        |  |   |                          |                                       |
| <input type="text" value="10.240.199.131"/>  | <input type="checkbox"/>   | <input type="button" value="Remove"/>   |                       |        |  |  |                          |                                    |   |                          |                                       |   |                          |                                       |                       |        |  |   |                          |                                       |
| <input type="text" value="10.240.199.132"/>  | <input type="checkbox"/>   | <input type="button" value="Remove"/>   |                       |        |  |  |                          |                                    |   |                          |                                       |   |                          |                                       |                       |        |  |   |                          |                                       |
| NTP Server IP Address                        | Prefer   |   |                       |        |  |  |                          |                                    |   |                          |                                       |   |                          |                                       |                       |        |  |   |                          |                                       |
| <input type="text" value="10.240.199.132"/>  | <input type="checkbox"/>   | <input type="button" value="Remove"/>   |                       |        |  |  |                          |                                    |   |                          |                                       |   |                          |                                       |                       |        |  |   |                          |                                       |

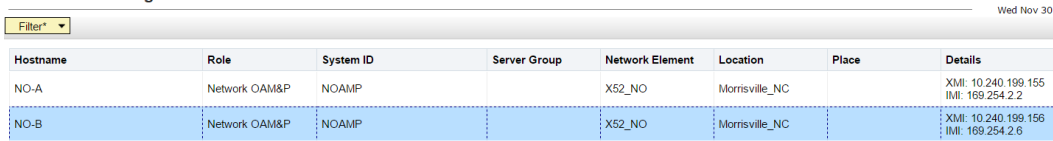
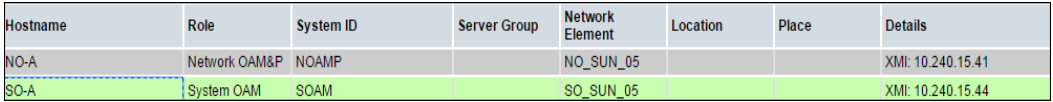
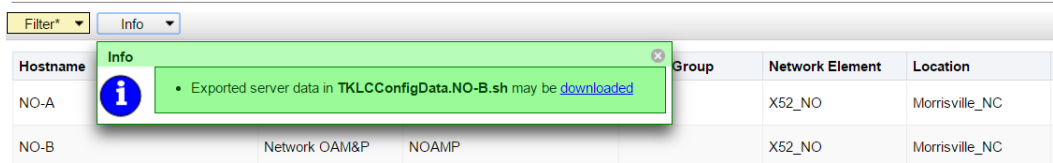
Procedure 15: Create Configuration for Remaining Servers

| Step                                       | Procedure   | Result  |
|--|---|---|
| <p>20.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1) The user should be presented with a banner information message stating <b>“Pre-Validation passed”</b>.</p> <p>2) Click the <b>“Apply”</b> dialogue button.</p>                            | <p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p>  <p>• “Check off” the associated Check Box as addition is completed for each Server.</p> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p>   |
| <p>21.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>If the values provided match the network ranges assigned to the NE, the user will receive a banner information message showing that the data has been validated and committed to the DB.</p> | <p><b>Main Menu: Configuration -&gt; Servers [Insert]</b></p>  <p>• “Check off” the associated Check Box as addition is completed for each Server.</p> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> |

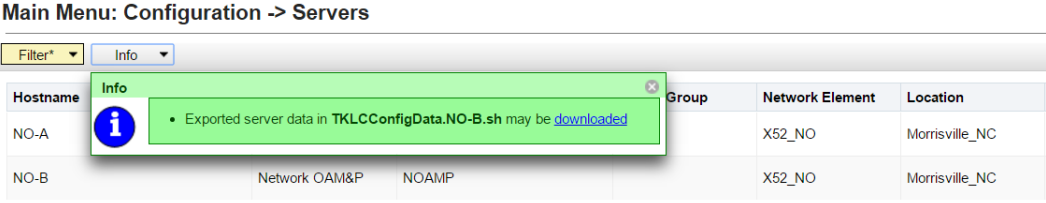
Procedure 15: Create Configuration for Remaining Servers

| Step                                       | Procedure  | Result  |              |                 |                |              |   |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
|--|--|---|--------------|-----------------|----------------|--------------|---|----------|-------|---------|------|---------------|-------|--|--------|----------------|--|---|------|---------------|-------|--|--------|----------------|--|---|----------|------|-----------|--------------|-----------------|----------|-------|---------|------|---------------|-------|--|-----------|--|--|-------------------|------|------------|------|--|-----------|--|--|-------------------|
| <p>22.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p><i>Applying the Server Configuration File</i></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ Configuration<br/>→ Servers</p> <p>...as shown on the right.</p> | <p>Main Menu: Configuration -&gt; Servers <span style="float: right;">Wed Nov 30</span></p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Network OAM&amp;P</td> <td>NOAMP</td> <td></td> <td>X52_NO</td> <td>Morrisville_NC</td> <td></td> <td>XMI: 10.240.199.155<br/>IMI: 169.254.2.2</td> </tr> <tr> <td>NO-B</td> <td>Network OAM&amp;P</td> <td>NOAMP</td> <td></td> <td>X52_NO</td> <td>Morrisville_NC</td> <td></td> <td>XMI: 10.240.199.156<br/>IMI: 169.254.2.6</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>“Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p>   | Hostname     | Role            | System ID      | Server Group | Network Element                         | Location | Place | Details | NO-A | Network OAM&P | NOAMP |  | X52_NO | Morrisville_NC |  | XMI: 10.240.199.155<br>IMI: 169.254.2.2 | NO-B | Network OAM&P | NOAMP |  | X52_NO | Morrisville_NC |  | XMI: 10.240.199.156<br>IMI: 169.254.2.6 |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| Hostname                                   | Role   | System ID   | Server Group | Network Element | Location       | Place        | Details                                 |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| NO-A                                       | Network OAM&P  | NOAMP   |              | X52_NO          | Morrisville_NC |              | XMI: 10.240.199.155<br>IMI: 169.254.2.2 |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| NO-B                                       | Network OAM&P  | NOAMP   |              | X52_NO          | Morrisville_NC |              | XMI: 10.240.199.156<br>IMI: 169.254.2.6 |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| <p>23.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>The “<b>Configuration → Servers</b>” screen should now show the newly added <b>Server</b> in the list.</p>  | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Configuration -&gt; Servers <span style="float: right;">Wed Nov 30</span></p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Network OAM&amp;P</td> <td>NOAMP</td> <td></td> <td>X52_NO</td> <td>Morrisville_NC</td> <td></td> <td>XMI: 10.240.199.155<br/>IMI: 169.254.2.2</td> </tr> <tr> <td>NO-B</td> <td>Network OAM&amp;P</td> <td>NOAMP</td> <td></td> <td>X52_NO</td> <td>Morrisville_NC</td> <td></td> <td>XMI: 10.240.199.156<br/>IMI: 169.254.2.6</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Role</th> <th>System ID</th> <th>Server Group</th> <th>Network Element</th> <th>Location</th> <th>Place</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Network OAM&amp;P</td> <td>NOAMP</td> <td></td> <td>NO_SUN_05</td> <td></td> <td></td> <td>XMI: 10.240.15.41</td> </tr> <tr> <td>SO-A</td> <td>System OAM</td> <td>SOAM</td> <td></td> <td>SO_SUN_05</td> <td></td> <td></td> <td>XMI: 10.240.15.44</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>“Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> | Hostname     | Role            | System ID      | Server Group | Network Element                         | Location | Place | Details | NO-A | Network OAM&P | NOAMP |  | X52_NO | Morrisville_NC |  | XMI: 10.240.199.155<br>IMI: 169.254.2.2 | NO-B | Network OAM&P | NOAMP |  | X52_NO | Morrisville_NC |  | XMI: 10.240.199.156<br>IMI: 169.254.2.6 | Hostname | Role | System ID | Server Group | Network Element | Location | Place | Details | NO-A | Network OAM&P | NOAMP |  | NO_SUN_05 |  |  | XMI: 10.240.15.41 | SO-A | System OAM | SOAM |  | SO_SUN_05 |  |  | XMI: 10.240.15.44 |
| Hostname                                   | Role   | System ID   | Server Group | Network Element | Location       | Place        | Details                                 |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| NO-A                                       | Network OAM&P  | NOAMP   |              | X52_NO          | Morrisville_NC |              | XMI: 10.240.199.155<br>IMI: 169.254.2.2 |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| NO-B                                       | Network OAM&P  | NOAMP   |              | X52_NO          | Morrisville_NC |              | XMI: 10.240.199.156<br>IMI: 169.254.2.6 |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| Hostname                                   | Role   | System ID   | Server Group | Network Element | Location       | Place        | Details                                 |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| NO-A                                       | Network OAM&P  | NOAMP   |              | NO_SUN_05       |                |              | XMI: 10.240.15.41                       |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |
| SO-A                                       | System OAM   | SOAM  |              | SO_SUN_05       |                |              | XMI: 10.240.15.44                       |          |       |         |      |               |       |  |        |                |  |   |      |               |       |  |        |                |  |   |          |      |           |              |                 |          |       |         |      |               |       |  |           |  |  |                   |      |            |      |  |           |  |  |                   |

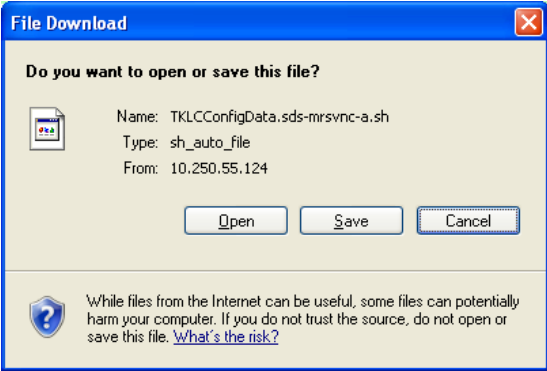
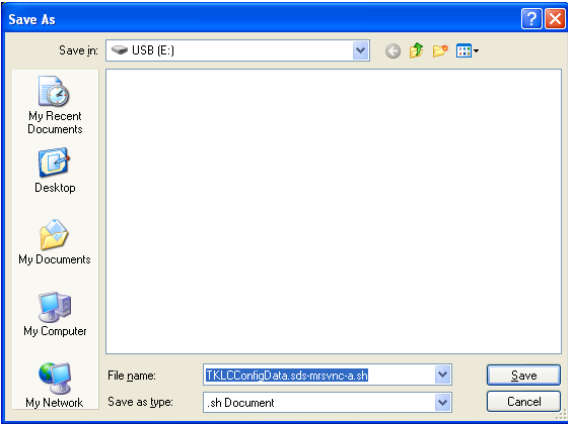
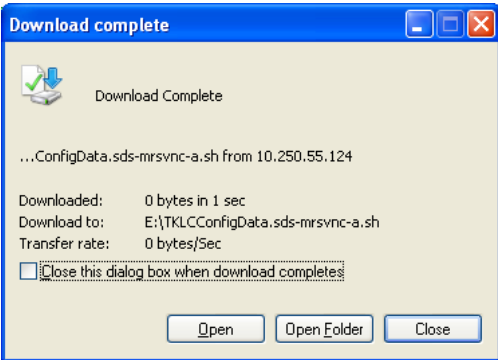
Procedure 15: Create Configuration for Remaining Servers

| Step                                       | Procedure   | Result  |
|--|---|---|
| <p><b>24.</b></p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>1) Use the cursor to select the <b>Server</b> entry added in <b>Steps 9 - 21</b>.</p> <p>The row containing the desired Server should now be highlighted in <b>BLUE</b>.</p> <p>2) Select the <b>“Export”</b> dialogue button.</p> | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Configuration -&gt; Servers</p>  <p>Single Server Configuration:</p>  <p><input type="button" value="Insert"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Export"/> <input type="button" value="Report"/></p> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only) <input type="checkbox"/> NOAMP-B <input type="checkbox"/> SOAM-A <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1 <input type="checkbox"/> MP-2 <input type="checkbox"/> MP-3 <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> |
| <p><b>25.</b></p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user will receive a banner information message showing a download link for the Server configuration data.</p>  | <p>Main Menu: Configuration -&gt; Servers</p>  <p>The configuration file was created and stored in the /var/TKLC/db/filemgmt directory on the primary NOAMP-A server. The configuration file will have a file name like TKLCConfigData.&lt;hostname&gt;.sh.</p> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only) <input type="checkbox"/> NOAMP-B <input type="checkbox"/> SOAM-A <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1 <input type="checkbox"/> MP-2 <input type="checkbox"/> MP-3 <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p>   |

Procedure 15: Create Configuration for Remaining Servers

| Step                                       | Procedure  | Result  |
|--|--|---|
| <p>26.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>Click on the “downloaded” link inside the Info box.</p> | <p>Main Menu: Configuration -&gt; Servers</p>  <p>• “Check off” the associated Check Box as addition is completed for each Server.</p> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> |

Procedure 15: Create Configuration for Remaining Servers

| Step   | Procedure   | Result  |
|--|---|---|
| <p>27.</p> <p><input type="checkbox"/></p>   | <p><b>NOAMP Server A:</b></p> <p>1) Click the “Save” dialogue button.</p> <p>2) Save the configuration file to a USB flash drive.</p> <p>3) Click the “Close” dialogue button</p> | <div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;">  <p style="font-size: 2em; color: blue; margin-left: 100px;">1</p> </div> <div style="margin-bottom: 20px;">  <p style="font-size: 2em; color: blue; margin-left: 100px;">2</p> </div> <div style="margin-bottom: 20px;">  <p style="font-size: 2em; color: blue; margin-left: 100px;">3</p> </div> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="text-align: center;"><input type="checkbox"/> NOAMP-A (DR Site only)</div> <div style="text-align: center;"><input type="checkbox"/> NOAMP-B</div> <div style="text-align: center;"><input type="checkbox"/> SOAM-A</div> <div style="text-align: center;"><input type="checkbox"/> SOAM-B</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="text-align: center;"><input type="checkbox"/> MP-1</div> <div style="text-align: center;"><input type="checkbox"/> MP-2</div> <div style="text-align: center;"><input type="checkbox"/> MP-3</div> <div style="text-align: center;"><input type="checkbox"/> MP-4</div> </div> <div style="display: flex; justify-content: center; margin-top: 10px;"> <div style="text-align: center;"><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</div> </div> <div style="display: flex; justify-content: center; margin-top: 10px;"> <div style="text-align: center;"><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</div> </div> </div> |
| <p><b>Note:</b> The steps above may be completed for one or all servers listed in the “Check Off” section before continuing...</p> |   |   |

**Procedure 15: Create Configuration for Remaining Servers**

| Step   | Procedure   | Result  |
|--|---|---|
| <p><b>28.</b><br/><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b><br/>Apply server configuration scripts.</p> | <p>Use the configuration scripts created and exported in the steps above to apply configuration to each server:</p> <ul style="list-style-type: none"> <li>• For HP rack mount NOAMP/DR servers: Follow Appendix K.1 Applying Server Configuration with ILO</li> <li>• For all other servers: Follow Appendix K.2 Applying Server Configuration with PM&amp;C</li> </ul> <p><input type="checkbox"/> NOAMP-A (DR Site only)   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><input type="checkbox"/> MP-5 (Gen-9 normal capacity)</p> <p><input type="checkbox"/> MP-6 (Gen-9 normal capacity)</p> |
| <p>THIS PROCEDURE HAS BEEN COMPLETED</p>       |   |   |

**8.3 Configure XSI Networks (All SOAM Sites)**

This procedure configures the XSI networks used on MP to support signaling traffic.


**Requirements:**

- **Procedure 15: Create Configuration for Remaining Servers** has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

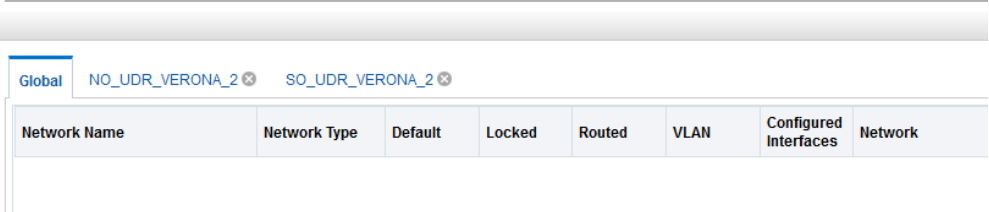

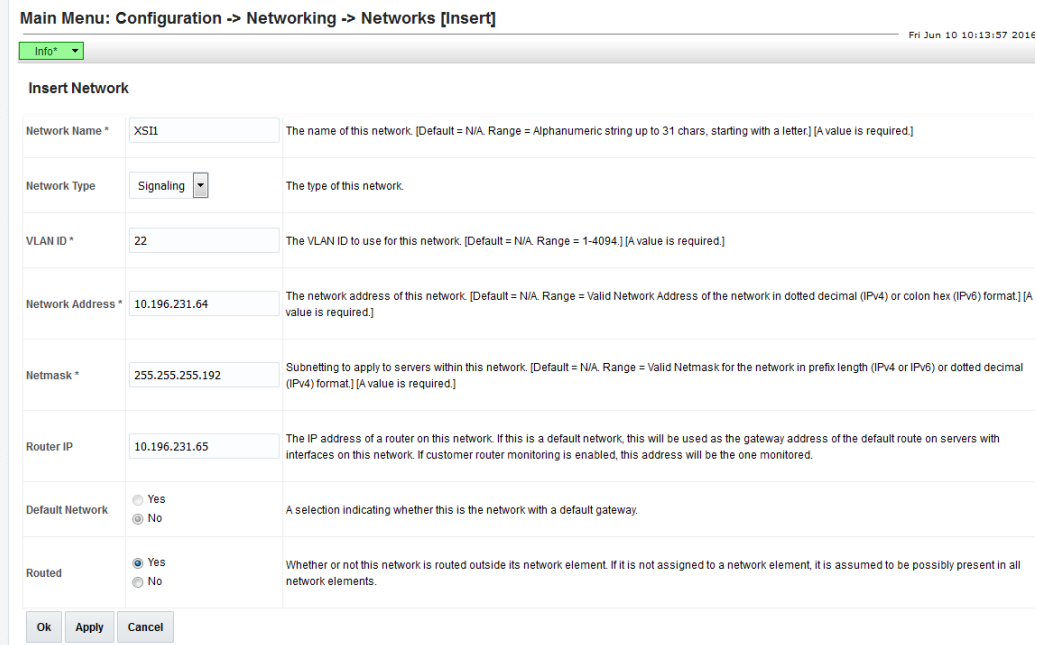
Note: If a setup has two sites and ComAgent over XSI supported for the same setup, then if adding XSI network for the other site, will need to keep the name the same for both the XSI networks.

Procedure 16: Configure XSI Networks

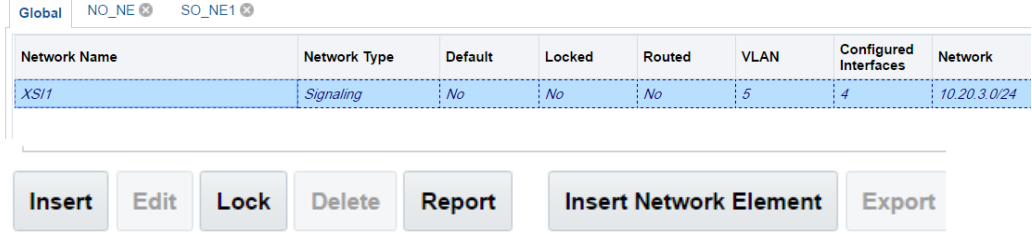
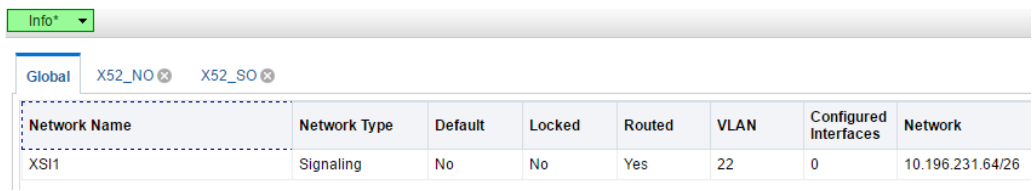
| Step                               | Procedure  | Result   |
|------------------------------------|--|--|
| <p>1.</p> <input type="checkbox"/> | <p><b>NOAMP Server A</b></p> <p>Launch an approved web browser and connect to the XMI IP address assigned to <b>NOAMP Server A</b> using <a href="https://">https://</a></p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: <b>“Continue to this website (not recommended)”</b>.</p> |  <p><b>There is a problem with this website's security certificate</b></p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p><a href="#">Go to my homepage instead</a></p> <p><a href="#">Continue to this webpage (not recommended)</a></p> |
| <p>2.</p> <input type="checkbox"/> | <p><b>NOAMP Server A</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>   |  |
| <p>3.</p> <input type="checkbox"/> | <p><b>NOAMP Server A</b></p> <p>The user should be presented the Main Menu as shown on the right.</p>  |  |



Procedure 16: Configure XSI Networks

| Step                                      | Procedure  | Result   |
|---|--|--|
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>                     → Configuration<br/>                     → Networking → Networks</p> <p>...as shown on the right.</p> | <p><b>Main Menu: Configuration -&gt; Networking -&gt; Networks</b></p>   |
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A</b></p> <p>Add the <b>XSI1</b> network</p> <p>Click <b>Apply</b> or <b>OK</b> when finished</p>   | <p>Click the <b>Insert</b> button. </p> <p>Output similar to that shown below may be observed.</p>  <p>Enter all of the above fields for the <b>XSI1</b> network according to the customer’s network parameters. The default values for <b>Network Element</b> (Unassigned), <b>Default Network</b> (No) and <b>Routeable</b> (Yes) should be retained. Click OK when finished</p> <p>ComAgent Service is configured to run on XSI1 in Section 8.118.10 Configure ComAgent Service, this network shall be used for MP ↔ NOAMP ComAgent Traffic.</p> <p>This network may or may not be used for MP Signaling Traffic.</p> <p><b>Note:</b> Network names can be overloaded to support multiple subnets. When defining network for ComAgent Service, use same network name for Primary and DR Site.</p> |

**Procedure 16: Configure XSI Networks**

| Step   | Procedure   | Result  |
|--|---|---|
| 6.   | <p><b>NOAMP Server A</b><br/> <b>Perform for IPv6 Networks only:</b></p> <p>This step should be executed for both Site-1 XSI and Site-2 XSI networks</p> <ol style="list-style-type: none"> <li>1) Go to Main Menu-&gt;Networking-&gt;Networks</li> <li>2) Select XSI network and click lock</li> </ol> | <p>Main Menu: Configuration -&gt; Networking -&gt; Networks</p>   |
| <p>Repeat <b>Steps 5 &amp; 6</b> of this procedure to <b>Insert</b> additional signaling networks(<b>XSI2</b>, etc) as required.</p> |   |   |
| 7.   | <p><b>NOAMP Server A</b></p> <p><input type="checkbox"/> New XSI network is displayed along with a success message.</p>   | <p>Main Menu: Configuration -&gt; Networking -&gt; Networks</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>  |   |   |

**8.4 OAM Pairing for the Primary NOAMP Servers (1<sup>st</sup> NOAMP 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.





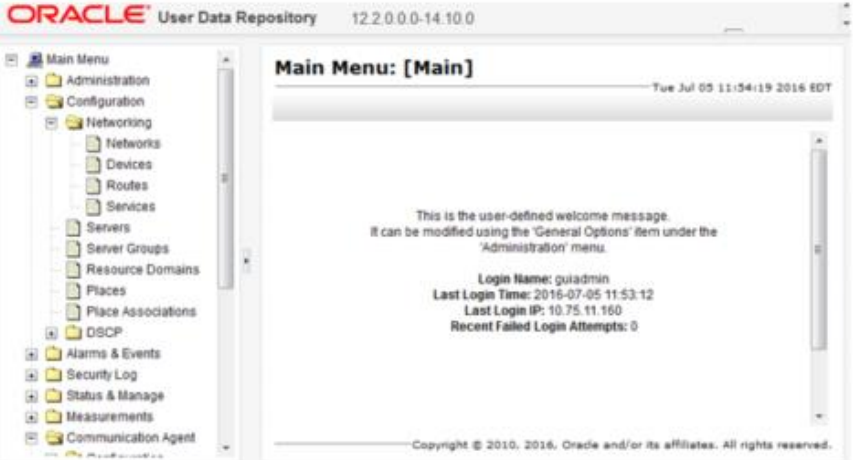
This procedure creates active/standby pair for the NOAMP servers at the Primary Provisioning Site..

**Requirements:**

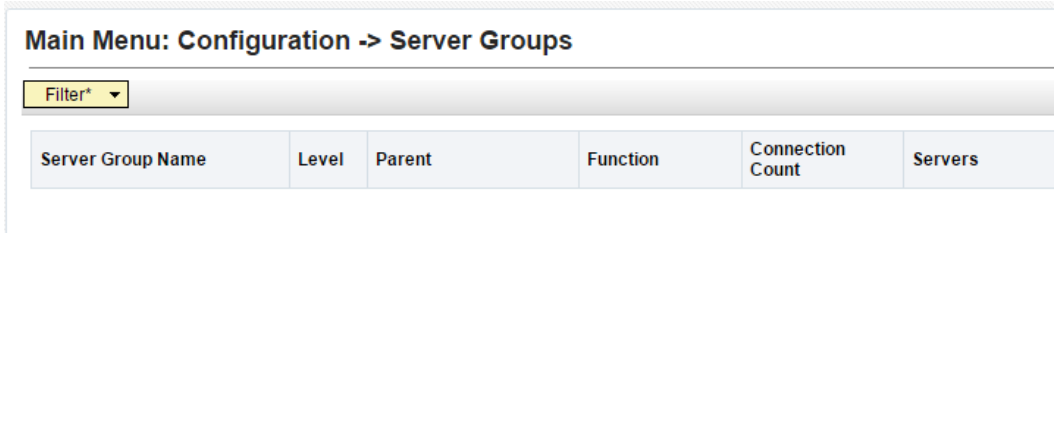
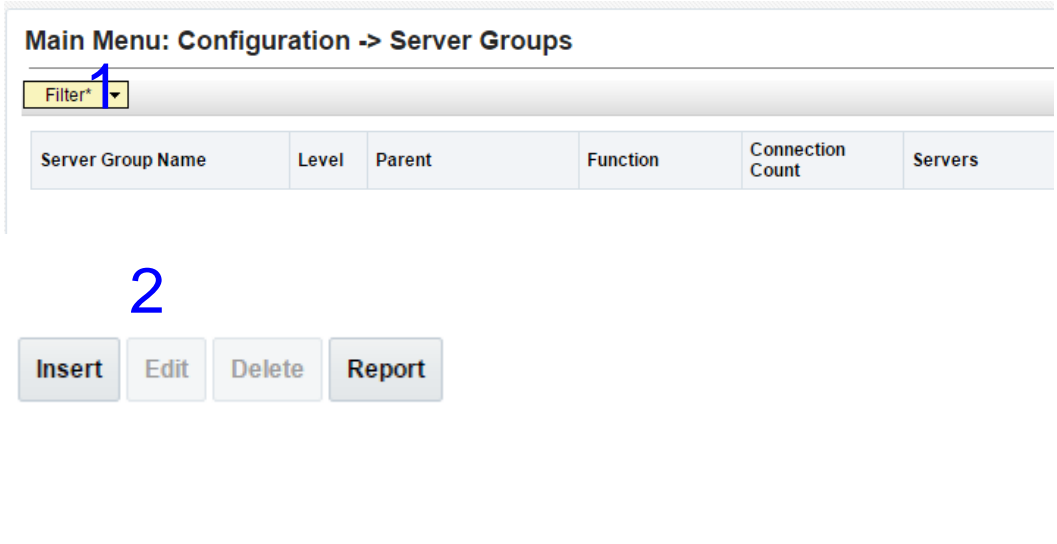
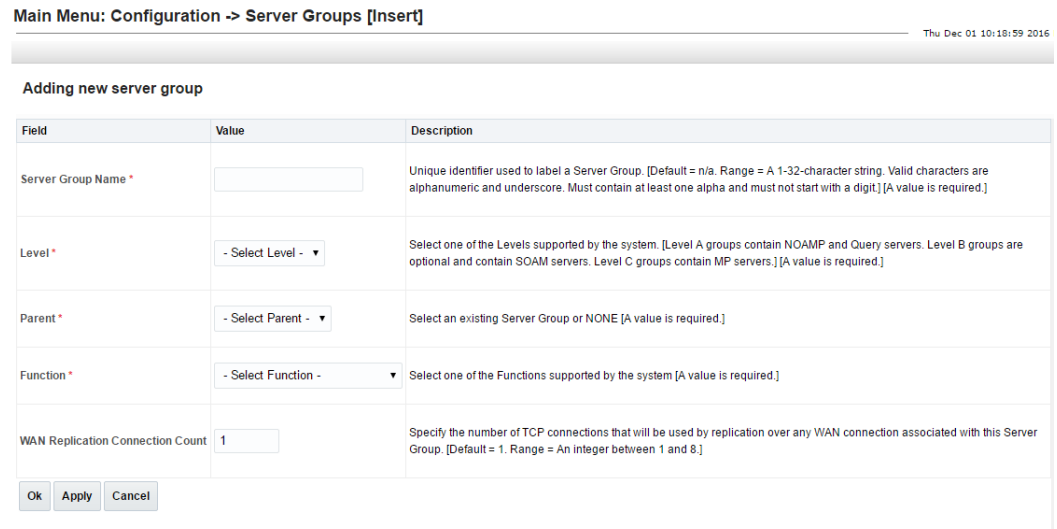
- **Procedure 15: Create Configuration for Remaining Servers** has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

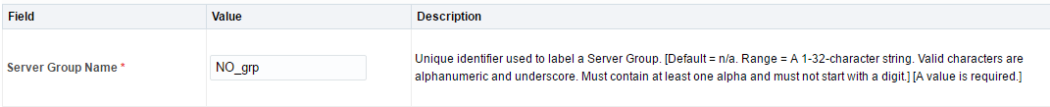
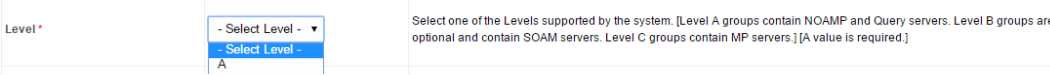
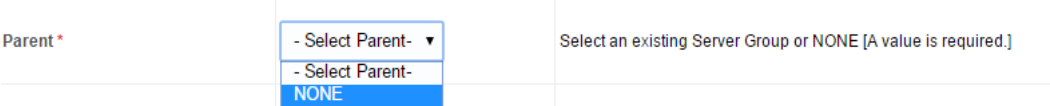
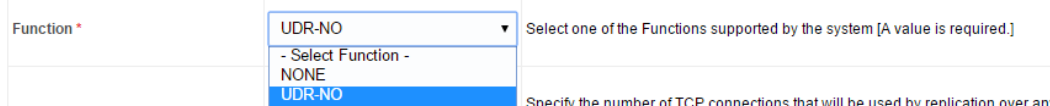
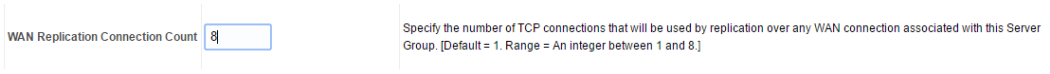
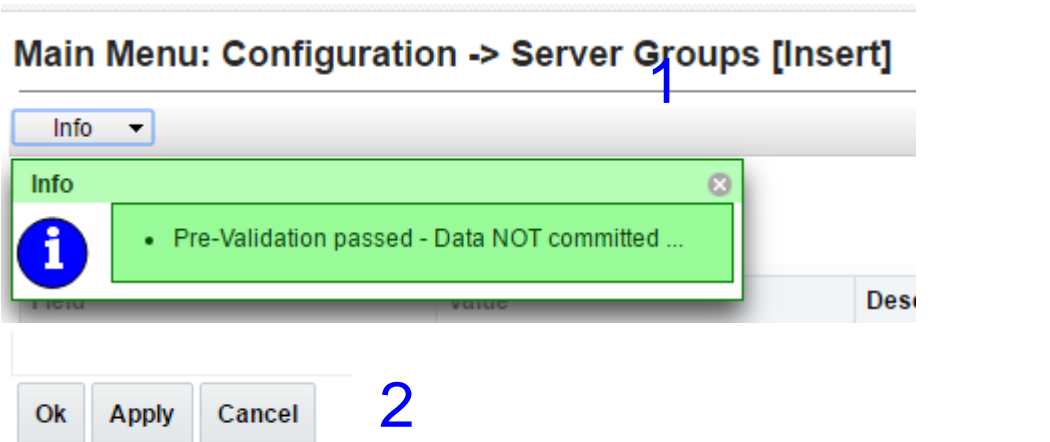
Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                               | Procedure   | Result   |
|------------------------------------|---|--|
| <p>1.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Launch an approved web browser and connect to the XMI IP address assigned to <b>NOAMP Server A</b> using <a href="https://">https://</a></p> <p><b>NOTE:</b>If presented with the “security certificate” warning screen shown to the right, choose the following option:<br/> <b>“Continue to this website (not recommended)”</b>.</p> |  <p><b>There is a problem with this website's security certificate</b></p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p> <a href="#">Go to my homepage instead</a></p> <p> <a href="#">Continue to this webpage (not recommended)</a></p> |
| <p>2.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>   |   |
| <p>3.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user should be presented the Main Menu as shown on the right.</p>  |    |

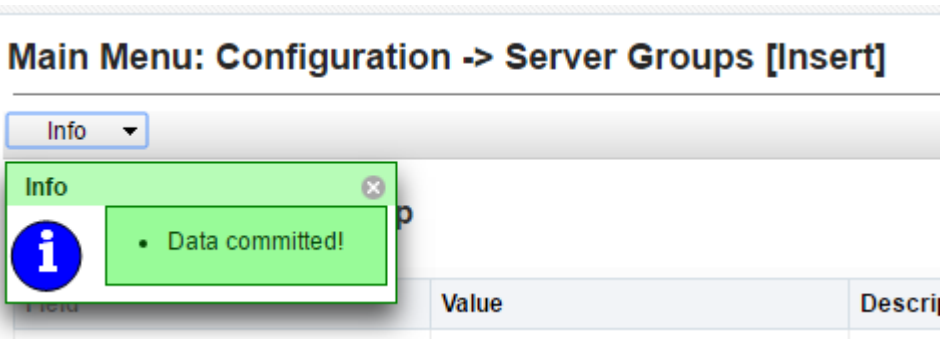
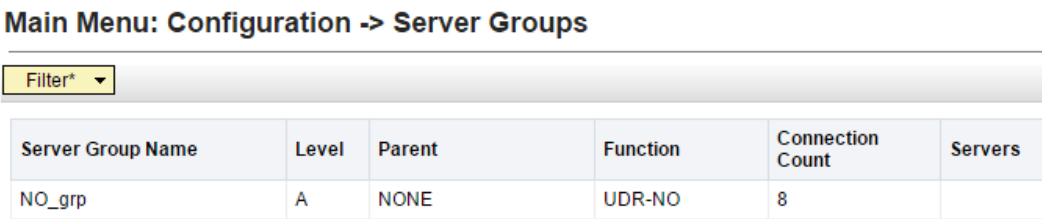
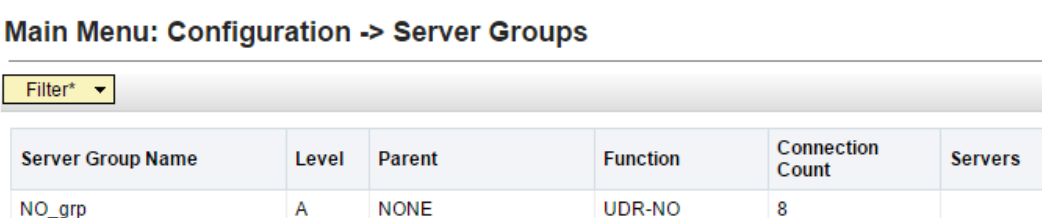
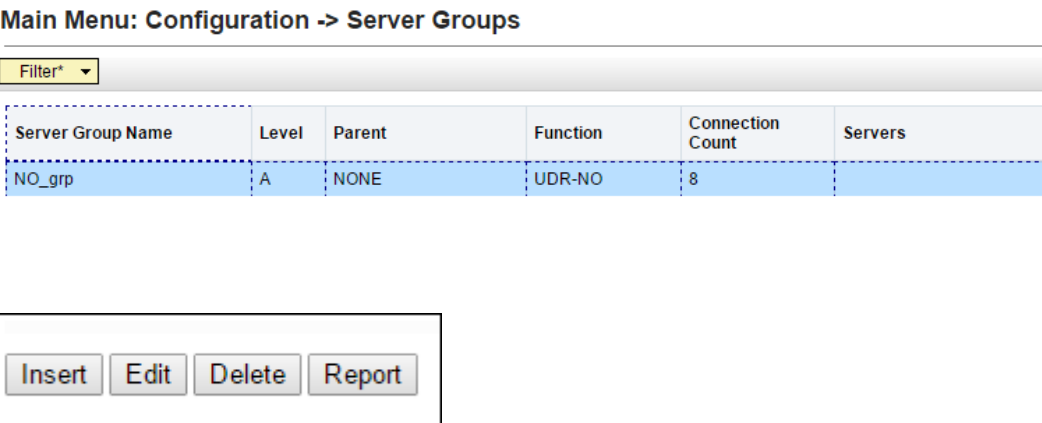
Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                      | Procedure   | Result   |
|---|---|--|
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p><i>Configuring Server Group</i></p> <p>Select...</p> <p><b>Main Menu</b><br/> → Configuration<br/> → Server Groups</p> <p>...as shown on the right.</p>  |    |
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1) The user will be presented with the “<b>Server Groups</b>” configuration screen as shown on the right.</p> <p>2) Select the “<b>Insert</b>” dialogue button from the bottom left corner of the screen.</p> <p><b>NOTE:</b> <i>The user may need to use the vertical scroll-bar in order to make the “Insert” dialogue button visible.</i></p> |   |
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>The user will be presented with the “<b>Server Groups [Insert]</b>” screen as shown on the right.</p>  |  |

Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                            | Procedure   | Result   |
|---------------------------------|---|--|
| 7.<br><input type="checkbox"/>  | <p><b>NOAMP Server A:</b></p> <p>Input the <b>Server Group Name</b>.</p>  |    |
| 8.<br><input type="checkbox"/>  | <p><b>NOAMP Server A:</b></p> <p>Select <b>"A"</b> on the <b>"Level"</b> pull-down menu.</p>  |    |
| 9.<br><input type="checkbox"/>  | <p><b>NOAMP Server A:</b></p> <p>Select <b>"None"</b> on the <b>"Parent"</b> pull-down menu.</p>  |    |
| 10.<br><input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select <b>"UDR-NO"</b> on the <b>"Function"</b> pull-down menu.</p>  |    |
| 11.<br><input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Input value <b>"8"</b> into <b>"WAN Replication Connection Count"</b>.</p>   |   |
| 12.<br><input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>1) The user should be presented with a banner information message stating <b>"Pre-Validation passed"</b>.</p> <p>2) Select the <b>"Apply"</b> dialogue button.</p> |  |

**Procedure 17:** OAM Pairing for the Primary NOAMP Servers

| Step                                | Procedure  | Result   |                   |                  |         |          |                  |         |        |   |      |        |   |  |
|-------------------------------------|--|--|-------------------|------------------|---------|----------|------------------|---------|--------|---|------|--------|---|--|
| <p>13.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user should be presented with a banner information message stating <b>“Data committed”</b>.</p>   |    |                   |                  |         |          |                  |         |        |   |      |        |   |  |
| <p>14.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/> → <b>Configuration</b><br/> → <b>Server Groups</b></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>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td></td> </tr> </tbody> </table>                                    | Server Group Name | Level            | Parent  | Function | Connection Count | Servers | NO_grp | A | NONE | UDR-NO | 8 |  |
| Server Group Name                   | Level  | Parent   | Function          | Connection Count | Servers |          |                  |         |        |   |      |        |   |  |
| NO_grp                              | A  | NONE   | UDR-NO            | 8                |         |          |                  |         |        |   |      |        |   |  |
| <p>15.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The <b>Server Group</b> entry added in <b>Steps 6- 13</b> should now appear on the <b>“Server Groups”</b> configuration screen as shown on the right.</p>   |  <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td></td> </tr> </tbody> </table>                                  | Server Group Name | Level            | Parent  | Function | Connection Count | Servers | NO_grp | A | NONE | UDR-NO | 8 |  |
| Server Group Name                   | Level  | Parent   | Function          | Connection Count | Servers |          |                  |         |        |   |      |        |   |  |
| NO_grp                              | A  | NONE   | UDR-NO            | 8                |         |          |                  |         |        |   |      |        |   |  |
| <p>16.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>1) Select the <b>Server Group</b> entry added in <b>Steps 6 - 13</b>. The line entry should now be highlighted</p> <p>2) Select the <b>“Edit”</b> dialogue button from the bottom left corner of the screen.</p> <p><b>NOTE:</b> <i>The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</i></p> |  <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td></td> </tr> </tbody> </table> <p>Insert Edit Delete Report</p> | Server Group Name | Level            | Parent  | Function | Connection Count | Servers | NO_grp | A | NONE | UDR-NO | 8 |  |
| Server Group Name                   | Level  | Parent   | Function          | Connection Count | Servers |          |                  |         |        |   |      |        |   |  |
| NO_grp                              | A  | NONE   | UDR-NO            | 8                |         |          |                  |         |        |   |      |        |   |  |

17.  **NOAMP Server A:**  
 The user will be presented with the “**Server Groups [Edit]**” screen as shown on the right.

Normal or Low Capacity Configuration:

Main Menu: Configuration -> Server Groups [Edit] Thu Jun 30 13:45:26

Info\*

Modifying attributes of server group : NO\_group\_Site1

| Field  | Value                                  | Description   |
|--|--|---|
| Server Group Name *  | NO_group_Site1                         | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.] |
| Level *  | A                                      | Select one of the Levels supported by the system [A value is required.]   |
| Parent *   | NONE                                   | Select an existing Server Group [A value is required.]  |
| Function *   | UDR-NO                                 | Select one of the Functions supported by the system [A value is required.]  |
| WAN Replication Connection Count                                 | 8                                      | 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.]  |
| UDR3_NO <input type="checkbox"/> Prefer Network Element as spare |  |   |
| Server   | SG Inclusion                           | Preferred HA Role   |
| Site1-NO-A   | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare   |
| Site1-NO-B   | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare   |
| VIP Assignment   |  |   |
| VIP Address  |  | Add   |

Single Server Configuration:

Main Menu: Configuration -> Server Groups [Edit] Fri Jun 24 13:34:19 2016 EDT

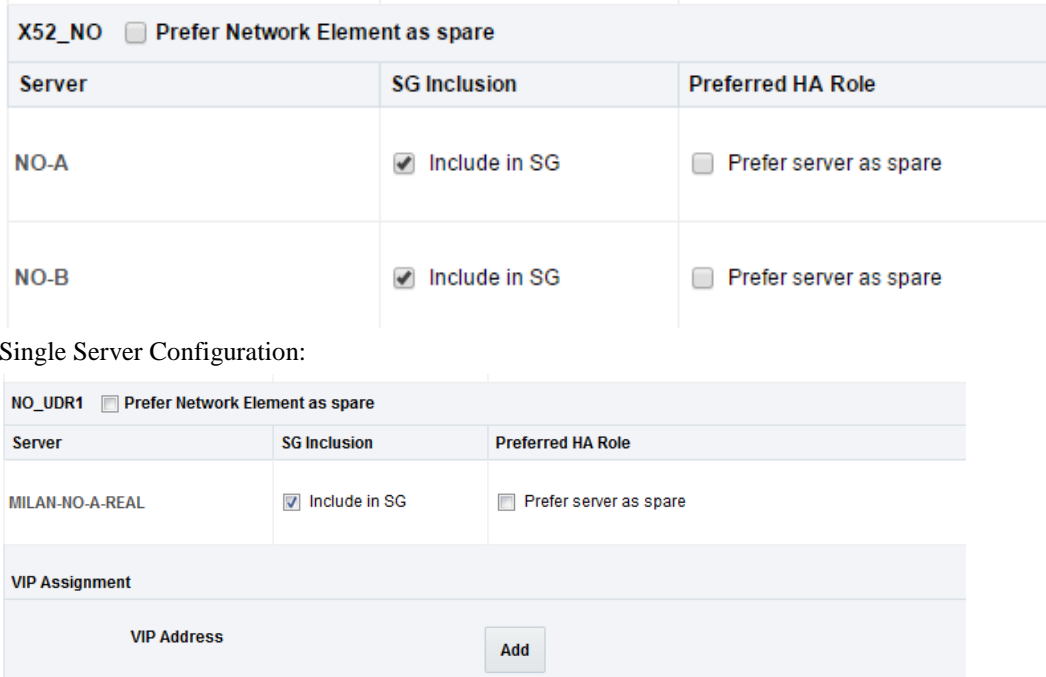
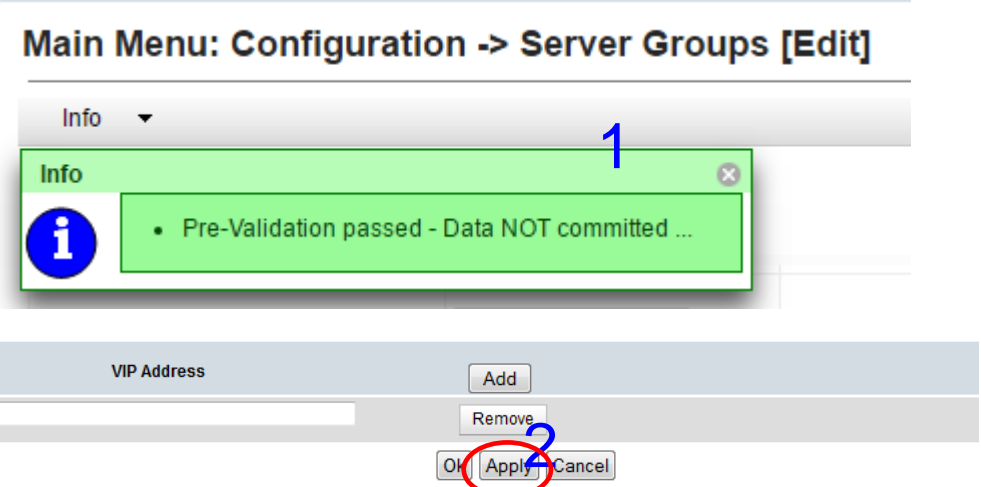
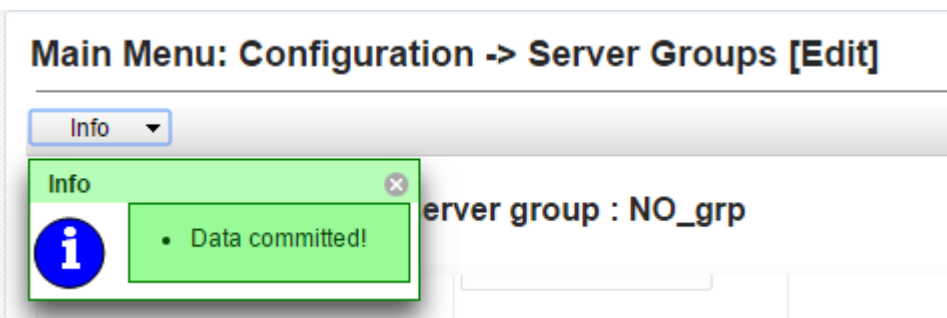
Modifying attributes of server group : MILAN\_NO\_A\_GRP

| Field  | Value   | Description   |
|--|---|---|
| Server Group Name *  | MILAN_NO_A_GRP                                    | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.] |
| Level *  | A   | Select one of the Levels supported by the system [A value is required.]   |
| Parent *   | NONE  | Select an existing Server Group [A value is required.]  |
| Function *   | UDR-NO  | Select one of the Functions supported by the system [A value is required.]  |
| WAN Replication Connection Count                                 | 8   | 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.]  |
| NO_UDR1 <input type="checkbox"/> Prefer Network Element as spare |   |   |
| Server   | SG Inclusion                                      | Preferred HA Role   |
| MILAN-NO-A-REAL  | <input checked="" type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare   |
| VIP Assignment   |   |   |
| VIP Address  |   | Add   |
| Ok Apply Cancel  |   |   |

18. **NOAMP Server A:**

Normal or Low Capacity Configuration:

Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                | Procedure   | Result   |
|-------------------------------------|---|--|
| <input type="checkbox"/>            | <p>Check the boxes to include the “A” server and the “B” server into the NOAMP Server Group.</p> <p>Note: For Single Server Installation, only NO-A will be displayed; therefore only one box will be selected.</p> |   |
| <p>19.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>1) The user should be presented with a banner information message stating “Pre-Validation passed”.</p> <p>2) Select the “Apply” dialogue button.</p>                               |  |
| <p>20.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user should be presented with a banner information message stating “Data committed”.</p>   |  |





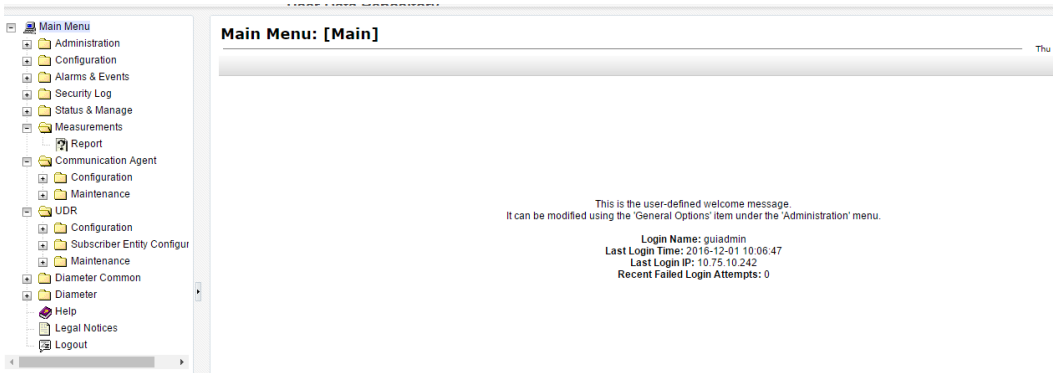
Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                       | Procedure  | Result  |        |              |                   |      |   |   |      |   |   |        |              |                   |      |   |  |
|--|--|---|--------|--------------|-------------------|------|---|---|------|---|---|--------|--------------|-------------------|------|---|--|
| <p>21.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>Click the “Add” dialogue button for the <b>VIP Address</b>.</p> <p><b>Note:</b> VIP Address optional for Single Server Configuration.</p> | <p>Normal or Low Capacity Configuration:</p> <p>X52_NO <input type="checkbox"/> Prefer Network Element as spare</p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td>NO-B</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> <b>Add</b></p> <p><input type="text"/> <b>Remove</b></p> <p><b>Ok</b> <b>Apply</b> <b>Cancel</b></p> <p>Single Server Configuration:</p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Preferred Spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> <b>Add</b></p> <p><input type="text"/> <b>Remove</b></p> <p><b>Ok</b> <b>Apply</b> <b>Cancel</b></p> | Server | SG Inclusion | Preferred HA Role | NO-A | <input checked="" type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare | NO-B | <input checked="" type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare | Server | SG Inclusion | Preferred HA Role | NO-A | <input checked="" type="checkbox"/> Include in SG | <input type="checkbox"/> Preferred Spare |
| Server                                     | SG Inclusion   | Preferred HA Role   |        |              |                   |      |   |   |      |   |   |        |              |                   |      |   |  |
| NO-A                                       | <input checked="" type="checkbox"/> Include in SG  | <input type="checkbox"/> Prefer server as spare   |        |              |                   |      |   |   |      |   |   |        |              |                   |      |   |  |
| NO-B                                       | <input checked="" type="checkbox"/> Include in SG  | <input type="checkbox"/> Prefer server as spare   |        |              |                   |      |   |   |      |   |   |        |              |                   |      |   |  |
| Server                                     | SG Inclusion   | Preferred HA Role   |        |              |                   |      |   |   |      |   |   |        |              |                   |      |   |  |
| NO-A                                       | <input checked="" type="checkbox"/> Include in SG  | <input type="checkbox"/> Preferred Spare  |        |              |                   |      |   |   |      |   |   |        |              |                   |      |   |  |
| <p>22.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>Input the <b>VIP Address</b></p>  | <p>VIP Address <input type="text"/> <b>Add</b></p> <p><b>10.240.199.154</b> <b>Remove</b></p>   |        |              |                   |      |   |   |      |   |   |        |              |                   |      |   |  |

Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                | Procedure   | Result  |
|-------------------------------------|---|---|
| <p>23.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>1) The user should be presented with a banner information message stating <b>“Pre-Validation passed”</b>.</p> <p>2) Select the <b>“Apply”</b> dialogue button.</p> |   |
| <p>24.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>The user should be presented with a banner information message stating <b>“Data committed”</b>.</p>  |   |
| <p>25.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Click the <b>“Logout”</b> link on the OAM A server GUI.</p>  |   |
| <p>26.</p> <input type="checkbox"/> | <p><b>IMPORTANT:</b></p> <p>Wait at least <b>5 minutes</b> before proceeding on to the next Step.</p>   | <ul style="list-style-type: none"> <li>Now that the server(s) have been paired within a Server Group they must establish a master/slave relationship for High Availability (HA). It may take several minutes for this process to be completed.</li> <li><b>Note:</b> Single Server Configuration will not need to establish the master/slave relationship for High Availability (HA).</li> </ul> <p>Allow a minimum of <b>5 minutes</b> before continuing to the next Step.</p> |

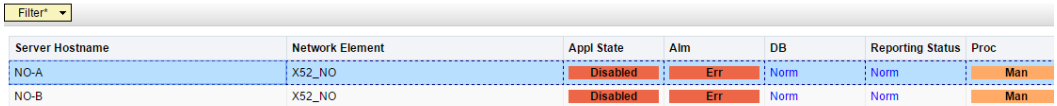
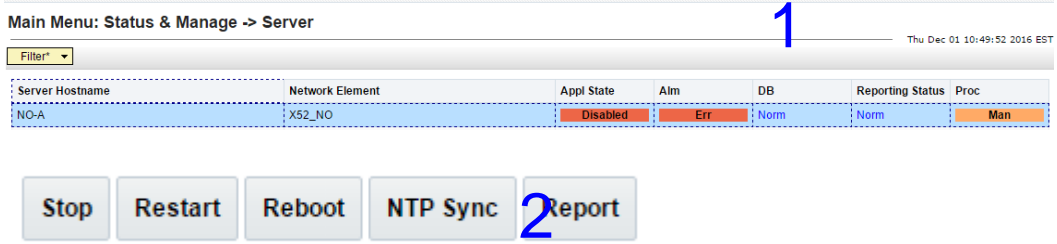
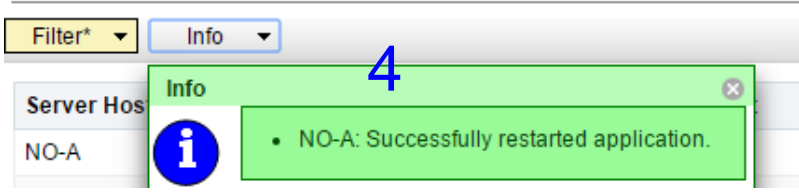
Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                | Procedure   | Result   |
|-------------------------------------|---|--|
| <p>27.</p> <input type="checkbox"/> | <p><b>NOAMP VIP:</b></p> <p>Launch an approved web browser and connect to the <b>XMI Virtual IP Address(VIP)</b> assigned in <b>STEP 22</b> to the <b>Server Group</b> using <b>“https://”</b>.</p> |  <p><b>There is a problem with this website's security certificate</b></p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p><a href="#">Go to my homepage instead</a></p> <p><a href="#">Continue to this webpage (not recommended)</a></p> |
| <p>28.</p> <input type="checkbox"/> | <p><b>NOAMP VIP:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>                                      |   |
| <p>29.</p> <input type="checkbox"/> | <p><b>NOAMP VIP:</b></p> <p>The user should be presented the Main Menu as shown on the right.</p>   |    |

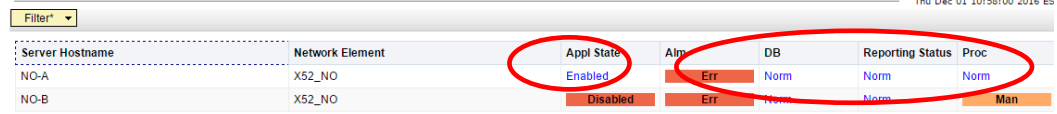
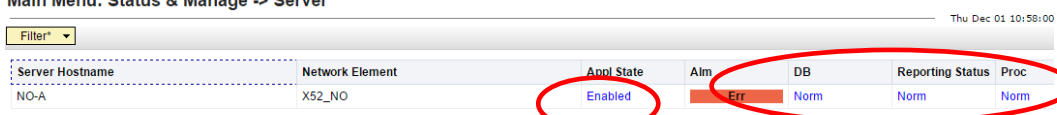
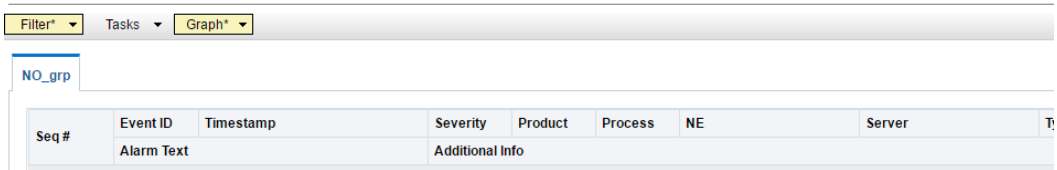
Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                       | Procedure  | Result  |                 |                 |                  |      |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
|--|--|---|-----------------|-----------------|------------------|------|----|------------------|------|------|--------|----------|-----|------|------|-----|------|--------|----------|-----|------|------|-----|-----------------|-----------------|------------|-----|----|------------------|------|------|--------|----------|-----|------|------|-----|
| <p>30.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP VIP:</b></p> <p><i>Restarting the NOAMP Server Application</i></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Status &amp; Manage</b><br/>→ <b>Server</b></p> <p>...as shown on the right.</p>  | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 10:49:52 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 10:49:52 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | NO-A | X52_NO | Disabled | Err | Norm | Norm | Man | NO-B | X52_NO | Disabled | Err | Norm | Norm | Man | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | NO-A | X52_NO | Disabled | Err | Norm | Norm | Man |
| Server Hostname                            | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| NO-A                                       | X52_NO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| NO-B                                       | X52_NO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| Server Hostname                            | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| NO-A                                       | X52_NO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| <p>31.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP VIP:</b></p> <p>1) The “A” and “B” servers should now appear in the right panel. Note: For single server, only the “A” server will appear.</p> <p>2) Verify that the “DB” status shows “Norm” and the “Proc” status shows “Man” for one/both servers before proceeding to the next Step.</p> | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 10:49:52 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 10:49:52 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | NO-A | X52_NO | Disabled | Err | Norm | Norm | Man | NO-B | X52_NO | Disabled | Err | Norm | Norm | Man | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | NO-A | X52_NO | Disabled | Err | Norm | Norm | Man |
| Server Hostname                            | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| NO-A                                       | X52_NO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| NO-B                                       | X52_NO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| Server Hostname                            | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |
| NO-A                                       | X52_NO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |

Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                       | Procedure   | Result  |
|--|---|---|
| <p>32.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP VIP:</b></p> <p>1) Using the mouse, select <b>NOAMP Server A</b>. The line entry should now be highlighted</p> <p>2) Select the <b>“Restart”</b> dialogue button from the bottom left corner of the screen.</p> <p>3) Click the <b>“OK”</b> button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for <b>NOAMP Server A</b> stating: <b>“Successfully restarted application”</b>.</p> <p><i>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</i></p> | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server <span style="float: right;">1</span></p>  <p>Single Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server <span style="float: right;">1</span></p>  <p>100.64.202.27 says:<br/>Are you sure you wish to restart application software on the following server(s)?<br/>NO-A <span style="float: right;">3</span></p> <p>OK Cancel</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p>  <p>4</p> |

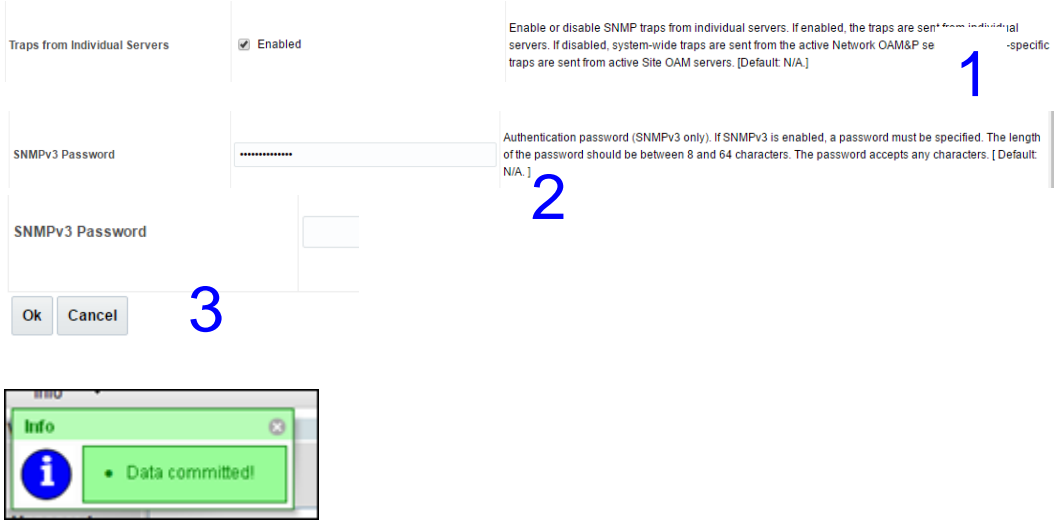
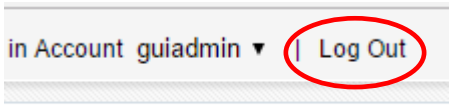
Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                | Procedure  | Result   |
|-------------------------------------|--|--|
| <p>33.</p> <input type="checkbox"/> | <p><b>NOAMP VIP:</b></p> <p>Verify that the “<b>Appl State</b>” now shows “<b>Enabled</b>” and that the “<b>DB, &amp; Proc</b>” status columns all show “<b>Norm</b>” for <b>NOAMP Server A</b> before proceeding to the next Step.</p> <p><b>NOTE:</b> If user chooses to refresh the Server status screen in advance of the default setting (15-30 sec.). This may be done by simply reselecting the “<b>Status &amp; Manage</b> → <b>Server</b>” option from the Main menu on the left.</p> | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p>  <p>Single Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p>  |
| <p>34.</p> <input type="checkbox"/> | <p><b>NOAMP VIP:</b></p> <p>Restart <b>NOAMP Server B</b>.</p>   | <p><b>Note: Don't perform this step for single server installations.</b></p> <p>Repeat steps 32 and 33 above to restart NOAMP Server B.</p>  |
| <p>35.</p> <input type="checkbox"/> | <p><b>NOAMP VIP:</b></p> <p>Verifying the <i>NOAMP Server Alarm status</i></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Alarms &amp; Events</b><br/>→ <b>View Active</b></p> <p>...as shown on the right.</p>   | <p>Main Menu: Alarms &amp; Events -&gt; View Active</p>    |

Procedure 17: OAM Pairing for the Primary NOAMP Servers

| Step                                       | Procedure  | Result  |
|--|--|---|
| <p>36.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP VIP:</b></p> <p>Verify that the noted <b>Event IDs</b> are the only alarms present on the system at this time.</p>   | <p>Main Menu: Alarms &amp; Events -&gt; View Active</p> <p>Verify that only the following Event IDs are the only alarms present:</p> <ul style="list-style-type: none"> <li>- <b>13075</b> (Provisioning Interfaces Disabled)</li> <li>- <b>19820</b> (Communication Agent Routed Service Unavailable)</li> </ul> <p><b>Note:</b> It may take a few minutes for residual process alarms to clear.</p> |
| <p>37.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP VIP:</b></p> <p>Configuring SNMP for Traps from Individual Servers</p> <p>Select...</p> <p><b>Main Menu</b><br/> → Administration<br/> → Remote Servers<br/> → <b>SNMP Trapping</b><br/> ...as shown on the right.</p> <p>Select “<b>Insert</b>” on bottom left corner</p> | <p>Main Menu: Administration -&gt; Remote Servers -&gt; SNMP Trapping</p>   |

**Procedure 17: OAM Pairing for the Primary NOAMP Servers**

| Step  | Procedure  | Result   |
|---|--|--|
| <p>38.</p> <input type="checkbox"/>             | <p><b>NOAMP VIP:</b></p> <p>1) Using the cursor, place a “check” in the check box for “<b>Traps from Individual Servers</b>”.</p> <p>2) A password is required for SNMPv3.</p> <p>3) Click the “<b>OK</b>” button located at the bottom in the center of the screen. .</p> <p>4) Verify that a banner message stating “<b>Data committed</b>” is received.</p> |  <p>Enable or disable SNMP traps from individual servers. If enabled, the traps are sent from individual servers. If disabled, system-wide traps are sent from the active Network OAM&amp;P server. If disabled, system-wide traps are sent from active Site OAM servers. [Default: N/A]</p> <p>Authentication password (SNMPv3 only). If SNMPv3 is enabled, a password must be specified. The length of the password should be between 8 and 64 characters. The password accepts any characters. [Default: N/A]</p> <p>Ok Cancel</p> <p><b>Info</b><br/>Data committed!</p> |
| <p>39.</p> <input type="checkbox"/>             | <p><b>NOAMP VIP:</b></p> <p>Click the “<b>Logout</b>” link on the server GUI.</p>  |  <p>in Account guiadmin   Log Out</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |

**8.5 OAM pairing for SOAM and DR sites (All SOAM and DR 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.

The steps in this procedure are for all SOAM servers and the DR NOAMP servers.

This procedure creates active/standby pair for the SOAM servers at any site or the DR NOAMP Servers.

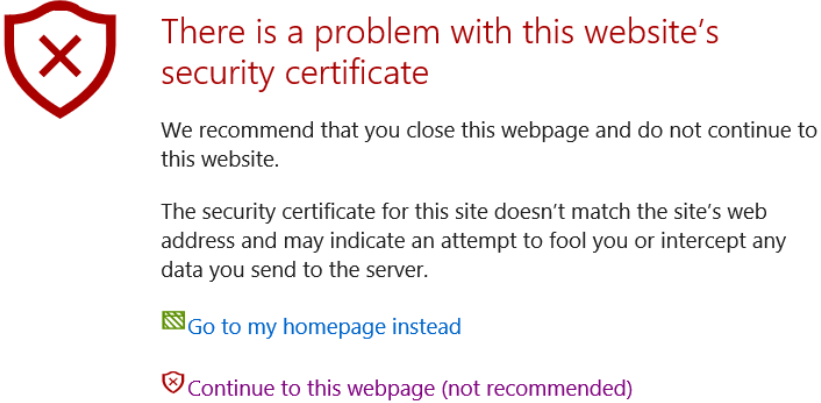

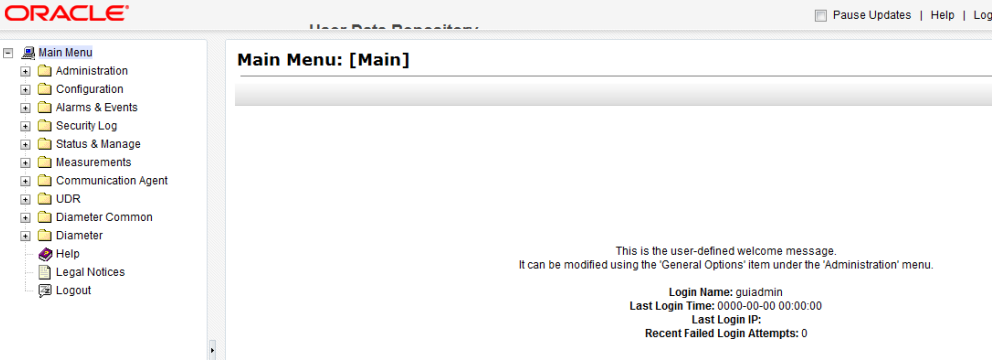
**Requirements:**

- **Procedure 15: Create Configuration for Remaining Servers** has been completed.
- **Procedure 17: OAM Pairing for the Primary NOAMP Servers** has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.



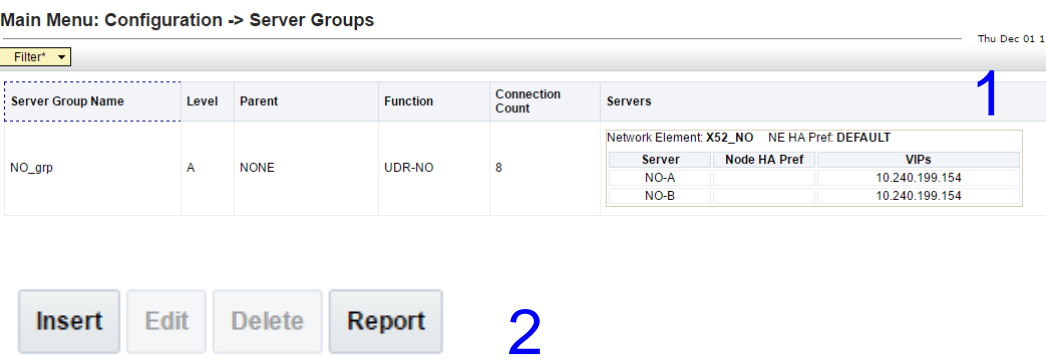
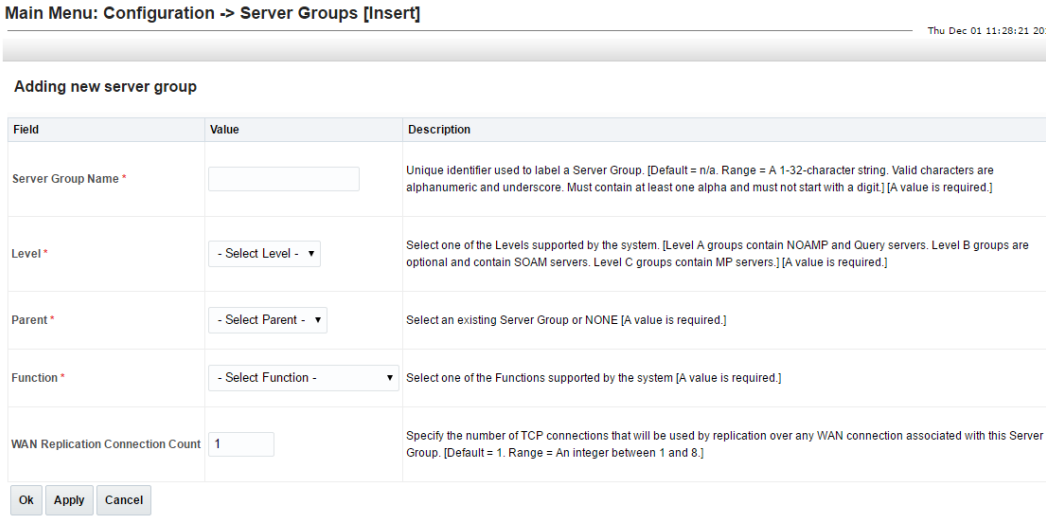
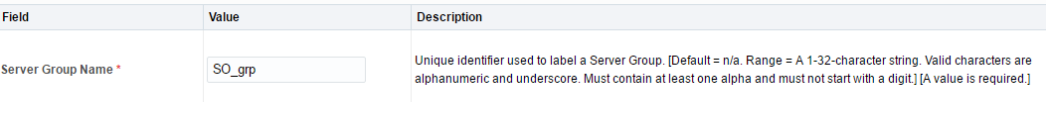
**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step                               | Procedure   | Result   |
|------------------------------------|---|--|
| <p>1.</p> <input type="checkbox"/> | <p><b>Active NOAMPVIP:</b></p> <p>Launch an approved web browser and connect to the <b>XMI Virtual IP Address(VIP)</b> of the <b>Active NOAMP site</b> using <a href="https://">https://</a></p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option:<br/> <b>“Continue to this website (not recommended)”</b>.</p> |    |
| <p>2.</p> <input type="checkbox"/> | <p><b>Active NOAMPVIP:</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>  |   |
| <p>3.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP:</b></p> <p>The user should be presented the Main Menu as shown on the right.</p>  |  |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step  | Procedure   | Result   |                     |                    |  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
|---|---|--|---------------------|--------------------|--|---|--------------------|-----------------|-------------|--------------|------|--------|-----|--|---|--------|----------------|----------------|--------------|---------|------|--------|----------------|--------|---------------|----------------|------|-------------|-------------|--|--|--------|------------|--|------|-------------|-------------|--|--|--------|------------|--|------|-------------|-------------|--|--|--------|----|--|------|-------------|-------------|--|--|--------|----|--|------|-------------|-------------|--|--|--------|----|--|------|-------------|-------------|--|--|--------|----|--|----------|---------------------|-------------|------|--------|--------------------------------------|------|---------|--------------------------------------|
| <p>4.</p> <p><input type="checkbox"/></p>   | <p><b>Active NOAMP VIP:</b></p> <p><i>For Primary NOAMP Standby server only:</i></p> <p>Mark the server 'forced standby'</p> <p><b>Main Menu</b><br/>→ <b>Status &amp; Manage</b><br/>→ <b>HA</b></p> <p>Click "Edit" button on bottom left</p> <p>Find the row for the Primary NOAMP Standby server and change "Max Allowed HA Role" to "Standby".</p> | <p>*Note: Don't perform this step for single server installations.</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> <th>Active VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Active</td> <td>N/A</td> <td>Active</td> <td>NO-B</td> <td>X52_NO</td> <td>Network OAM&amp;P</td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td>Standby</td> <td>N/A</td> <td>Active</td> <td>NO-A</td> <td>X52_NO</td> <td>Network OAM&amp;P</td> <td></td> </tr> <tr> <td>SO-A</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>System OAM</td> <td></td> </tr> <tr> <td>SO-B</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>System OAM</td> <td></td> </tr> <tr> <td>MP-2</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>MP</td> <td></td> </tr> <tr> <td>MP-3</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>MP</td> <td></td> </tr> <tr> <td>MP-4</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>MP</td> <td></td> </tr> <tr> <td>MP-1</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>MP</td> <td></td> </tr> </tbody> </table> <p><b>Main Menu: Status &amp; Manage -&gt; HA [Edit]</b></p> <p>Info*</p> <p><b>Modifying HA attributes</b></p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Max Allowed HA Role</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Active</td> <td>The maximum desired HA Role for NO-A</td> </tr> <tr> <td>NO-B</td> <td>Standby</td> <td>The maximum desired HA Role for NO-B</td> </tr> </tbody> </table> <p>Ok Cancel</p> | Hostname            | OAM HA Role        | Application HA Role  | Max Allowed HA Role                         | Mate Hostname List | Network Element | Server Role | Active VIPs  | NO-A | Active | N/A | Active   | NO-B  | X52_NO | Network OAM&P  | 10.240.199.154 | NO-B         | Standby | N/A  | Active | NO-A           | X52_NO | Network OAM&P |                | SO-A | Unavailable | Unavailable |  |  | X52_SO | System OAM |  | SO-B | Unavailable | Unavailable |  |  | X52_SO | System OAM |  | MP-2 | Unavailable | Unavailable |  |  | X52_SO | MP |  | MP-3 | Unavailable | Unavailable |  |  | X52_SO | MP |  | MP-4 | Unavailable | Unavailable |  |  | X52_SO | MP |  | MP-1 | Unavailable | Unavailable |  |  | X52_SO | MP |  | Hostname | Max Allowed HA Role | Description | NO-A | Active | The maximum desired HA Role for NO-A | NO-B | Standby | The maximum desired HA Role for NO-B |
| Hostname                                    | OAM HA Role   | Application HA Role  | Max Allowed HA Role | Mate Hostname List | Network Element  | Server Role                                 | Active VIPs        |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| NO-A  | Active  | N/A  | Active              | NO-B               | X52_NO   | Network OAM&P                               | 10.240.199.154     |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| NO-B  | Standby   | N/A  | Active              | NO-A               | X52_NO   | Network OAM&P                               |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| SO-A  | Unavailable   | Unavailable  |                     |                    | X52_SO   | System OAM                                  |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| SO-B  | Unavailable   | Unavailable  |                     |                    | X52_SO   | System OAM                                  |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| MP-2  | Unavailable   | Unavailable  |                     |                    | X52_SO   | MP  |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| MP-3  | Unavailable   | Unavailable  |                     |                    | X52_SO   | MP  |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| MP-4  | Unavailable   | Unavailable  |                     |                    | X52_SO   | MP  |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| MP-1  | Unavailable   | Unavailable  |                     |                    | X52_SO   | MP  |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| Hostname                                    | Max Allowed HA Role   | Description  |                     |                    |  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| NO-A  | Active  | The maximum desired HA Role for NO-A   |                     |                    |  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| NO-B  | Standby   | The maximum desired HA Role for NO-B   |                     |                    |  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| <p>5.</p> <p><input type="checkbox"/></p>   | <p><b>Active NOAMP VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Configuration</b><br/>→ <b>Server Groups</b></p> <p>...as shown on the right.</p>   | <p><b>Main Menu: Configuration -&gt; Server Groups</b></p> <p>Filter*</p> <p>Thu Dec 01 11:00:00</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td> <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> </td> </tr> </tbody> </table>   | Server Group Name   | Level              | Parent   | Function                                    | Connection Count   | Servers         | NO_grp      | A            | NONE | UDR-NO | 8   | <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Network Element: X52_NO NE HA Pref: DEFAULT |        |                | Server         | Node HA Pref | VIPs    | NO-A |        | 10.240.199.154 | NO-B   |               | 10.240.199.154 |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| Server Group Name                           | Level   | Parent   | Function            | Connection Count   | Servers  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| NO_grp                                      | A   | NONE   | UDR-NO              | 8                  | <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Network Element: X52_NO NE HA Pref: DEFAULT |                    |                 | Server      | Node HA Pref | VIPs | NO-A   |     | 10.240.199.154   | NO-B  |        | 10.240.199.154 |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| Network Element: X52_NO NE HA Pref: DEFAULT |   |  |                     |                    |  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| Server                                      | Node HA Pref  | VIPs   |                     |                    |  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| NO-A  |   | 10.240.199.154   |                     |                    |  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |
| NO-B  |   | 10.240.199.154   |                     |                    |  |   |                    |                 |             |              |      |        |     |  |   |        |                |                |              |         |      |        |                |        |               |                |      |             |             |  |  |        |            |  |      |             |             |  |  |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |          |                     |             |      |        |                                      |      |         |                                      |

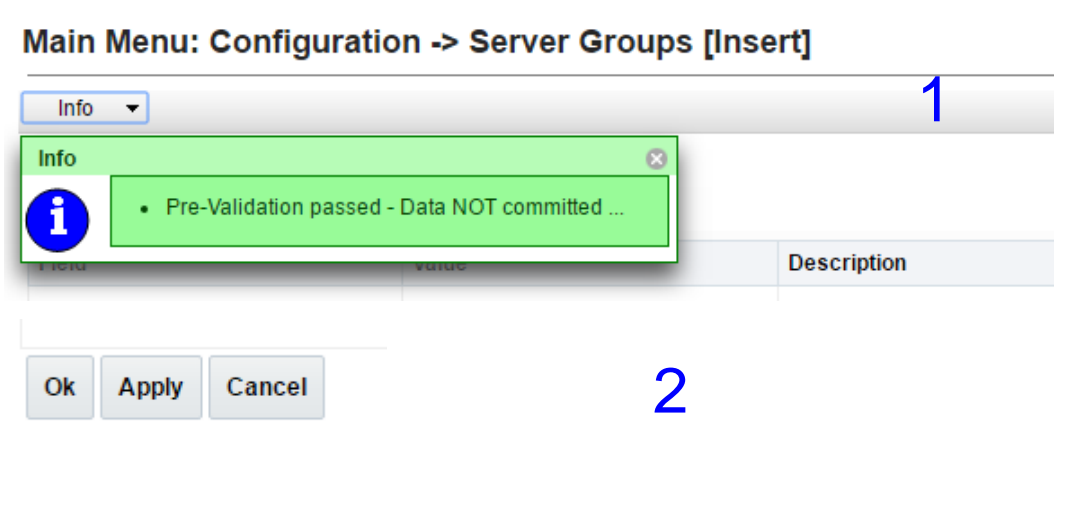
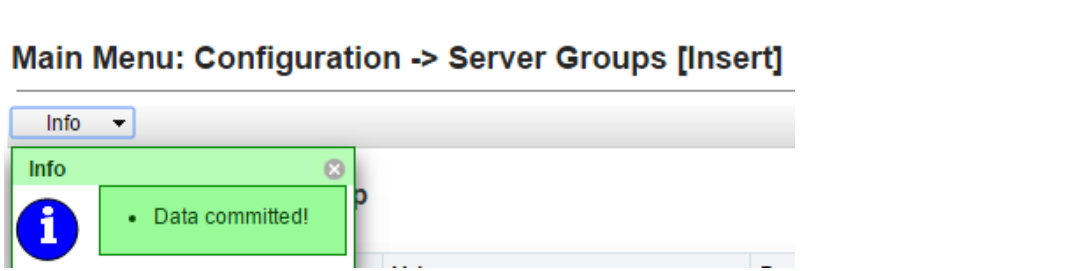
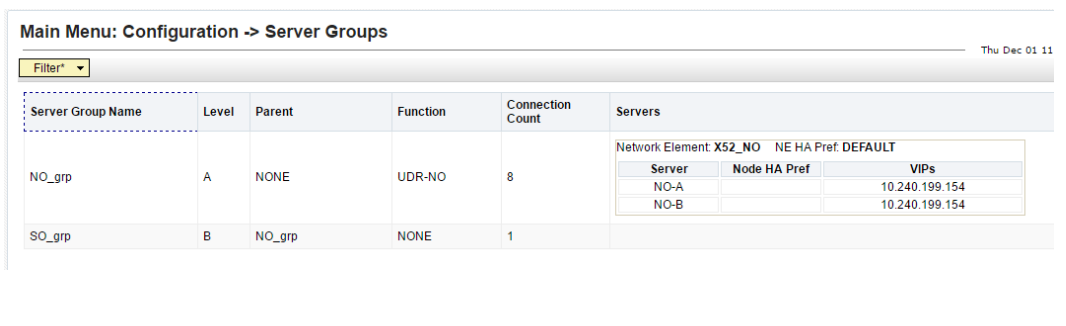
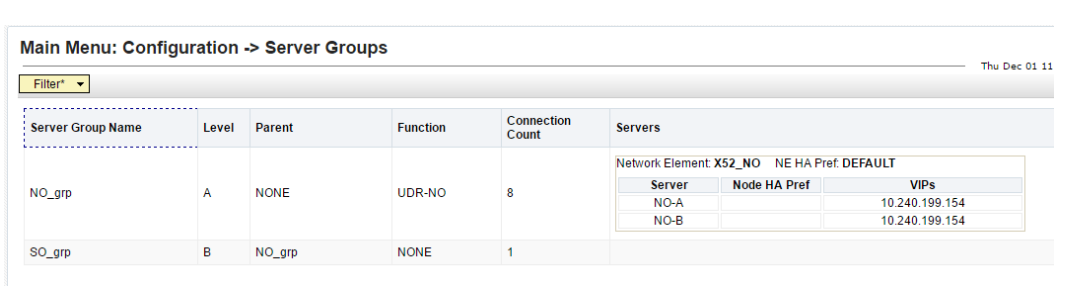
**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step                                      | Procedure  | Result   |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
|---|--|--|-------------------|------------------|--|---------------------|----------------------|---|---------|------------------|---|----------|-------------------|--|------------|---------------------|--|----------------------------------|---|--|------|--|----------------|
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>1) The user will be presented with the “<b>Server Groups</b>” configuration screen as shown on the right.</p> <p>2) Select the “<b>Insert</b>” dialogue button from the bottom left corner of the screen.</p> <p><b>NOTE:</b>The user may need to use the vertical scroll-bar in order to make the “<b>Insert</b>” dialogue button visible.</p> |  <p>Main Menu: Configuration -&gt; Server Groups</p> <p>Thu Dec 01 11:28:21 2011</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> </td> </tr> </tbody> </table> <p>Insert Edit Delete Report</p>   | Server Group Name | Level            | Parent   | Function            | Connection Count     | Servers   | NO_grp  | A                | NONE  | UDR-NO   | 8                 | <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server     | Node HA Pref        | VIPs   | NO-A                             |   | 10.240.199.154   | NO-B |  | 10.240.199.154 |
| Server Group Name                         | Level  | Parent   | Function          | Connection Count | Servers  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| NO_grp                                    | A  | NONE   | UDR-NO            | 8                | <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server              | Node HA Pref         | VIPs  | NO-A    |                  | 10.240.199.154  | NO-B     |                   | 10.240.199.154   |            |                     |  |                                  |   |  |      |  |                |
| Server                                    | Node HA Pref   | VIPs   |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| NO-A                                      |  | 10.240.199.154   |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| NO-B                                      |  | 10.240.199.154   |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| <p>7.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>Configuring the SOAM or DR NOAMP Server Group</p> <p>The user will be presented with the “<b>Server Groups [Insert]</b>” screen as shown on the right.</p>  |  <p>Main Menu: Configuration -&gt; Server Groups [Insert]</p> <p>Thu Dec 01 11:28:21 2011</p> <p>Adding new server group</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td><input type="text"/></td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]</td> </tr> <tr> <td>Level *</td> <td>- 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.] [A value is required.]</td> </tr> <tr> <td>Parent *</td> <td>- Select Parent -</td> <td>Select an existing Server Group or NONE [A value is required.]</td> </tr> <tr> <td>Function *</td> <td>- Select Function -</td> <td>Select one of the Functions supported by the system [A value is required.]</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.]</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p> | Field             | Value            | Description  | Server Group Name * | <input type="text"/> | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.] | Level * | - 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.] [A value is required.] | Parent * | - Select Parent - | Select an existing Server Group or NONE [A value is required.]   | Function * | - Select Function - | Select one of the Functions supported by the system [A value is required.] | WAN Replication Connection Count | 1 | Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.] |      |  |                |
| Field                                     | Value  | Description  |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| Server Group Name *                       | <input type="text"/>   | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]  |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| Level *                                   | - 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.] [A value is required.]  |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| Parent *                                  | - Select Parent -  | Select an existing Server Group or NONE [A value is required.]   |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| Function *                                | - Select Function -  | Select one of the Functions supported by the system [A value is required.]   |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| WAN Replication Connection Count          | 1  | Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.]   |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| <p>8.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>Input the <b>Server Group Name</b>.</p>   |  <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>SO_grp</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]</td> </tr> </tbody> </table>  | Field             | Value            | Description  | Server Group Name * | SO_grp               | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.] |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| Field                                     | Value  | Description  |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |
| Server Group Name *                       | SO_grp   | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]  |                   |                  |  |                     |                      |   |         |                  |   |          |                   |  |            |                     |  |                                  |   |  |      |  |                |

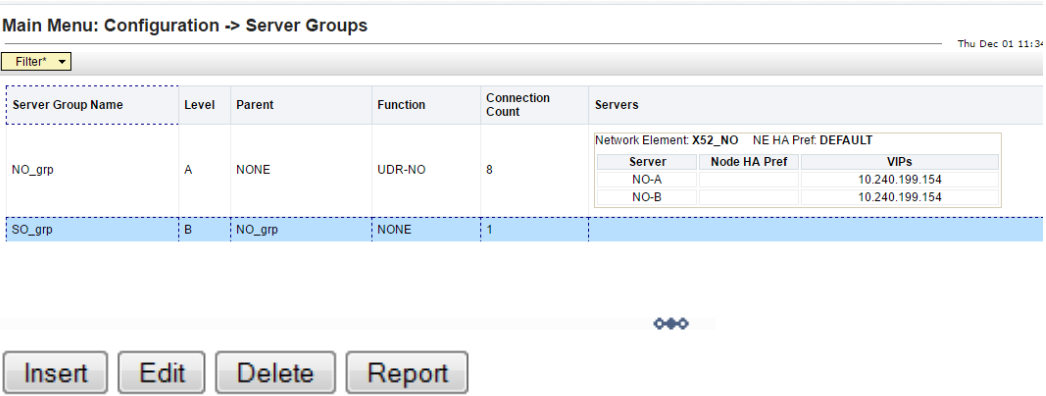
**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step                                | Procedure   | Result  |
|-------------------------------------|---|---|
| <p>9.</p> <input type="checkbox"/>  | <p><b>Active NOAMP VIP:</b><br/>Assign the correct group <b>Level</b>.</p>  | <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Level *</p> <p>Parent *</p> </div> <div style="width: 30%; border: 1px solid #ccc; padding: 5px;"> <div style="margin-bottom: 5px;"> <span style="border: 1px solid #ccc; padding: 2px;">- Select Level - ▾</span><br/> <span style="border: 1px solid #ccc; padding: 2px;">- Select Level -</span><br/> <span style="border: 1px solid #ccc; padding: 2px;">A</span><br/> <span style="border: 1px solid #ccc; padding: 2px; background-color: #007bff; color: white;">B</span><br/> <span style="border: 1px solid #ccc; padding: 2px;">C</span> </div> </div> <div style="width: 35%;"> <p>Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.] [A value is required.]</p> <p>Select an existing Server Group or NONE [A value is required.]</p> </div> </div> <p>Note: Use these setting for group level:</p> <ul style="list-style-type: none"> <li>For DR NOAMP server group: select “A” on the “Level” pull-down menu..</li> <li>For SOAM server group: select “B” on the “Level” pull-down menu.</li> </ul> |
| <p>10.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP:</b><br/>Assign the correct <b>Parent</b>.</p>   | <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Parent *</p> </div> <div style="width: 30%; border: 1px solid #ccc; padding: 5px;"> <span style="border: 1px solid #ccc; padding: 2px;">NO_grp ▾</span> </div> <div style="width: 35%;"> <p>Select an existing Server Group or NONE [A value is required.]</p> </div> </div> <p>Note: Use these setting for parent:</p> <ul style="list-style-type: none"> <li>For DR NOAMP server group: select “NONE” on the “Parent” pull-down menu.</li> <li>For SOAM server group: select the 1<sup>st</sup> NOAMP Site’s server group, as entered in <b>Procedure 9, Step 7</b> on the “Parent” pull-down menu.</li> </ul>  |
| <p>11.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP:</b><br/>Assign the correct <b>Function</b>.</p>   | <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>Function *</p> </div> <div style="width: 30%; border: 1px solid #ccc; padding: 5px;"> <span style="border: 1px solid #ccc; padding: 2px;">NONE ▾</span> </div> <div style="width: 35%;"> <p>Select one of the Functions supported by the system [A value is required.]</p> </div> </div> <p>Note: Use these setting for function:</p> <ul style="list-style-type: none"> <li>For DR NOAMP server group: select “UDR-NO” on the “Function” pull-down menu.</li> <li>For SOAM server group: select “NONE” on the “Function” pull-down menu.</li> </ul>  |
| <p>12.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP:</b><br/><i>For DR NOAMP only:</i><br/><br/>Input value “8” into “WAN Replication Connection Count”.</p> | <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>WAN Replication Connection Count</p> </div> <div style="width: 30%; border: 1px solid #ccc; padding: 5px;"> <span style="border: 1px solid #ccc; padding: 2px;">8</span> </div> <div style="width: 35%;"> <p>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> </div> </div>   |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step  | Procedure   | Result   |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
|---|---|--|-------------------|------------------|--|---|------------------|---------|--------|--------------|------|--------|---|--|---|--|----------------|--------|--------------|------|------|--|----------------|------|--|----------------|--------|---|--------|------|---|--|
| <p>13.</p> <input type="checkbox"/>         | <p><b>Active NOAMP VIP:</b></p> <p>1) The user should be presented with a banner information message stating <b>“Pre-Validation passed”</b>.</p> <p>2) Select the <b>“Apply”</b> dialogue button.</p> |  <p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Pre-Validation passed - Data NOT committed ...</li> </ul> <p>Ok Apply Cancel</p> <p>1</p> <p>2</p>   |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| <p>14.</p> <input type="checkbox"/>         | <p><b>Active NOAMP VIP:</b></p> <p>The user should be presented with a banner information message stating <b>“Data committed”</b>.</p>  |  <p><b>Main Menu: Configuration -&gt; Server Groups [Insert]</b></p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Data committed!</li> </ul>  |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| <p>15.</p> <input type="checkbox"/>         | <p><b>Active NOAMP VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Configuration</b><br/>→ <b>Server Groups</b></p> <p>...as shown on the right.</p>                                       |  <p><b>Main Menu: Configuration -&gt; Server Groups</b> Thu Dec 01 11</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td> <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> </td> </tr> <tr> <td>SO_grp</td> <td>B</td> <td>NO_grp</td> <td>NONE</td> <td>1</td> <td></td> </tr> </tbody> </table> | Server Group Name | Level            | Parent   | Function                                    | Connection Count | Servers | NO_grp | A            | NONE | UDR-NO | 8 | <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Network Element: X52_NO NE HA Pref: DEFAULT |  |                | Server | Node HA Pref | VIPs | NO-A |  | 10.240.199.154 | NO-B |  | 10.240.199.154 | SO_grp | B | NO_grp | NONE | 1 |  |
| Server Group Name                           | Level   | Parent   | Function          | Connection Count | Servers  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO_grp                                      | A   | NONE   | UDR-NO            | 8                | <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Network Element: X52_NO NE HA Pref: DEFAULT |                  |         | Server | Node HA Pref | VIPs | NO-A   |   | 10.240.199.154   | NO-B  |  | 10.240.199.154 |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| Network Element: X52_NO NE HA Pref: DEFAULT |   |  |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| Server                                      | Node HA Pref  | VIPs   |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO-A  |   | 10.240.199.154   |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO-B  |   | 10.240.199.154   |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| SO_grp                                      | B   | NO_grp   | NONE              | 1                |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| <p>16.</p> <input type="checkbox"/>         | <p><b>Active NOAMP VIP:</b></p> <p>The <b>Server Group</b> entry should be shown on the <b>“Server Groups”</b> configuration screen as shown on the right.</p>  |  <p><b>Main Menu: Configuration -&gt; Server Groups</b> Thu Dec 01 11</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td> <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> </td> </tr> <tr> <td>SO_grp</td> <td>B</td> <td>NO_grp</td> <td>NONE</td> <td>1</td> <td></td> </tr> </tbody> </table> | Server Group Name | Level            | Parent   | Function                                    | Connection Count | Servers | NO_grp | A            | NONE | UDR-NO | 8 | <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Network Element: X52_NO NE HA Pref: DEFAULT |  |                | Server | Node HA Pref | VIPs | NO-A |  | 10.240.199.154 | NO-B |  | 10.240.199.154 | SO_grp | B | NO_grp | NONE | 1 |  |
| Server Group Name                           | Level   | Parent   | Function          | Connection Count | Servers  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO_grp                                      | A   | NONE   | UDR-NO            | 8                | <table border="1"> <thead> <tr> <th colspan="3">Network Element: X52_NO NE HA Pref: DEFAULT</th> </tr> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Network Element: X52_NO NE HA Pref: DEFAULT |                  |         | Server | Node HA Pref | VIPs | NO-A   |   | 10.240.199.154   | NO-B  |  | 10.240.199.154 |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| Network Element: X52_NO NE HA Pref: DEFAULT |   |  |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| Server                                      | Node HA Pref  | VIPs   |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO-A  |   | 10.240.199.154   |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO-B  |   | 10.240.199.154   |                   |                  |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| SO_grp                                      | B   | NO_grp   | NONE              | 1                |  |   |                  |         |        |              |      |        |   |  |   |  |                |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step                                       | Procedure  | Result   |                   |                  |  |          |                  |         |        |   |                |        |   |  |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
|--|--|--|-------------------|------------------|--|----------|------------------|---------|--------|---|----------------|--------|---|--|--------|--------------|------|------|--|----------------|------|--|----------------|--------|---|--------|------|---|--|
| <p>17.</p> <p><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1) Select the <b>Server Group</b> entry applied in <b>Step 7</b>. The line entry should now be highlighted</p> <p>2) Select the <b>“Edit”</b> dialogue button from the bottom left corner of the screen.</p> <p><b>NOTE:</b> <i>The user may need to use the vertical scroll-bar in order to make the “Edit” dialogue button visible.</i></p> |  <p>Main Menu: Configuration -&gt; Server Groups</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> </td> </tr> <tr> <td>SO_grp</td> <td>B</td> <td>NO_grp</td> <td>NONE</td> <td>1</td> <td></td> </tr> </tbody> </table> <p>Buttons: Insert, Edit, Delete, Report</p> <p style="font-size: 2em; color: blue;">2</p> | Server Group Name | Level            | Parent   | Function | Connection Count | Servers | NO_grp | A | NONE           | UDR-NO | 8 | <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server | Node HA Pref | VIPs | NO-A |  | 10.240.199.154 | NO-B |  | 10.240.199.154 | SO_grp | B | NO_grp | NONE | 1 |  |
| Server Group Name                          | Level  | Parent   | Function          | Connection Count | Servers  |          |                  |         |        |   |                |        |   |  |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO_grp                                     | A  | NONE   | UDR-NO            | 8                | <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server   | Node HA Pref     | VIPs    | NO-A   |   | 10.240.199.154 | NO-B   |   | 10.240.199.154   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| Server                                     | Node HA Pref   | VIPs   |                   |                  |  |          |                  |         |        |   |                |        |   |  |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO-A                                       |  | 10.240.199.154   |                   |                  |  |          |                  |         |        |   |                |        |   |  |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| NO-B                                       |  | 10.240.199.154   |                   |                  |  |          |                  |         |        |   |                |        |   |  |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |
| SO_grp                                     | B  | NO_grp   | NONE              | 1                |  |          |                  |         |        |   |                |        |   |  |        |              |      |      |  |                |      |  |                |        |   |        |      |   |  |

Procedure 18: Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step                                       | Procedure  | Result  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
|--|--|---|-------|-------|-------------|---------------------|--------|--|---------|---|---|----------|--------|--|------------|------|--|----------------------------------|---|--|--------|--------------|-------------------|------|--|---|-------|-------|-------------|---------------------|----------------|--|---------|---|---|----------|----------------|--|------------|------|--|----------------------------------|---|--|--------|--------------|-------------------|------------|--|---|
| <p>18.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>Adding a Server to the OAM Server Group (SOAM or DR NOAMP)</p> <p>The user will be presented with the “<b>Server Groups [Edit]</b>” screen as shown on the right.</p> | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Configuration -&gt; Server Groups [Edit] <span style="float: right;">Thu Dec 01 11:37:04 2016 E</span></p> <hr/> <p>Modifying attributes of server group : SO_grp</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>SO_grp</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit!][A value is required.]</td> </tr> <tr> <td>Level *</td> <td>B</td> <td>Select one of the Levels supported by the system [A value is required.]</td> </tr> <tr> <td>Parent *</td> <td>NO_grp</td> <td>Select an existing Server Group [A value is required.]</td> </tr> <tr> <td>Function *</td> <td>NONE</td> <td>Select one of the Functions supported by the system [A value is required.]</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.]</td> </tr> </tbody> </table> <p>X52_SO <input type="checkbox"/> Prefer Network Element as spare</p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> <input type="button" value="Add"/></p> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p> <p>Single Server Configuration:</p> <p>Main Menu: Configuration -&gt; Server Groups [Edit] <span style="float: right;">Fri Jun 24 14:08:12 2016 EDT</span></p> <hr/> <p>Modifying attributes of server group : MILAN_SO_A_GRP</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>MILAN_SO_A_GRP</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit!][A value is required.]</td> </tr> <tr> <td>Level *</td> <td>B</td> <td>Select one of the Levels supported by the system [A value is required.]</td> </tr> <tr> <td>Parent *</td> <td>MILAN_NO_B_GRP</td> <td>Select an existing Server Group [A value is required.]</td> </tr> <tr> <td>Function *</td> <td>NONE</td> <td>Select one of the Functions supported by the system [A value is required.]</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>8</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>SO_UDR1 <input type="checkbox"/> Prefer Network Element as spare</p> <table border="1"> <thead> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>MILAN-SO-A</td> <td><input type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p>VIP Assignment</p> <p>VIP Address <input type="text"/> <input type="button" value="Add"/></p> <p><input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/></p> | Field | Value | Description | Server Group Name * | SO_grp | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit!][A value is required.] | Level * | B | Select one of the Levels supported by the system [A value is required.] | Parent * | NO_grp | Select an existing Server Group [A value is required.] | Function * | NONE | Select one of the Functions supported by the system [A value is required.] | WAN Replication Connection Count | 1 | Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.] | Server | SG Inclusion | Preferred HA Role | SO-A | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare | Field | Value | Description | Server Group Name * | MILAN_SO_A_GRP | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit!][A value is required.] | Level * | B | Select one of the Levels supported by the system [A value is required.] | Parent * | MILAN_NO_B_GRP | Select an existing Server Group [A value is required.] | Function * | NONE | Select one of the Functions supported by the system [A value is required.] | WAN Replication Connection Count | 8 | 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.] | Server | SG Inclusion | Preferred HA Role | MILAN-SO-A | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare |
| Field                                      | Value  | Description   |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Server Group Name *                        | SO_grp   | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit!][A value is required.]  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Level *                                    | B  | Select one of the Levels supported by the system [A value is required.]   |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Parent *                                   | NO_grp   | Select an existing Server Group [A value is required.]  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Function *                                 | NONE   | Select one of the Functions supported by the system [A value is required.]  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| WAN Replication Connection Count           | 1  | Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.]  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Server                                     | SG Inclusion   | Preferred HA Role   |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| SO-A                                       | <input type="checkbox"/> Include in SG   | <input type="checkbox"/> Prefer server as spare   |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Field                                      | Value  | Description   |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Server Group Name *                        | MILAN_SO_A_GRP   | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit!][A value is required.]  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Level *                                    | B  | Select one of the Levels supported by the system [A value is required.]   |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Parent *                                   | MILAN_NO_B_GRP   | Select an existing Server Group [A value is required.]  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Function *                                 | NONE   | Select one of the Functions supported by the system [A value is required.]  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| WAN Replication Connection Count           | 8  | 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.]  |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| Server                                     | SG Inclusion   | Preferred HA Role   |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |
| MILAN-SO-A                                 | <input type="checkbox"/> Include in SG   | <input type="checkbox"/> Prefer server as spare   |       |       |             |                     |        |  |         |   |   |          |        |  |            |      |  |                                  |   |  |        |              |                   |      |  |   |       |       |             |                     |                |  |         |   |   |          |                |  |            |      |  |                                  |   |  |        |              |                   |            |  |   |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

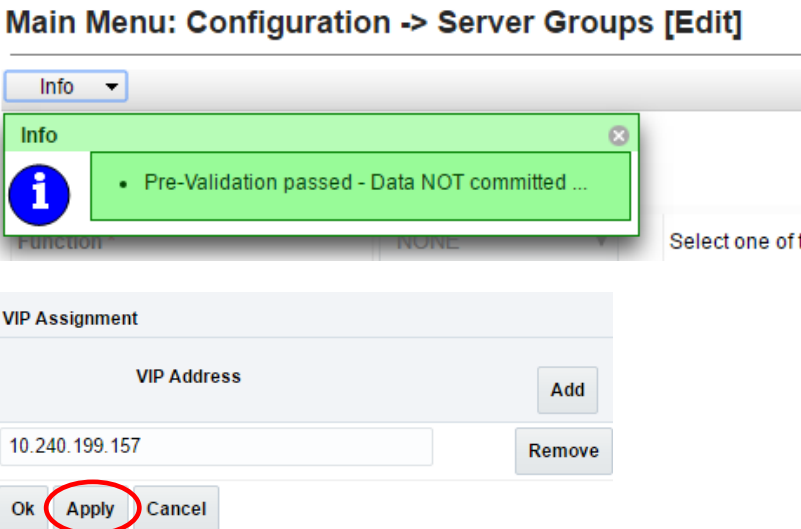
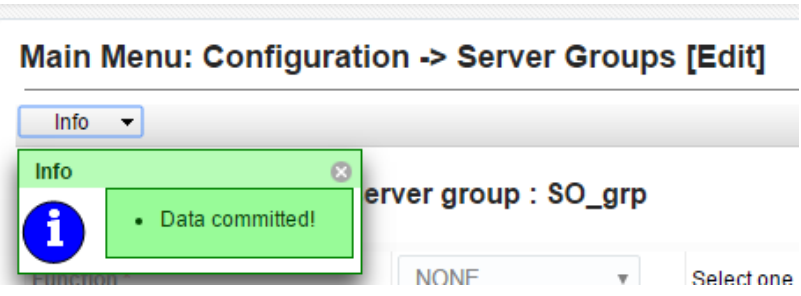
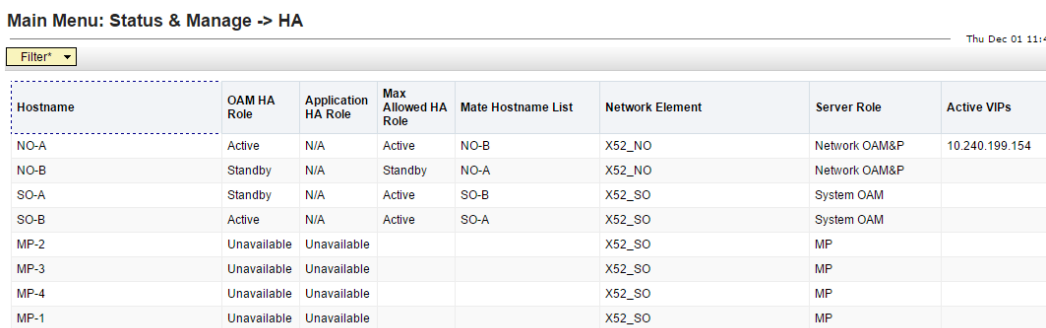
| Step  | Procedure  | Result  |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
|---|--|---|---|--|--|--------|--------------|-------------------|------|---|--|------|---|--|---|--|--|--------|--------------|-------------------|------|---|---|
| <p>19.</p> <input type="checkbox"/>                             | <p><b>Active NOAMP VIP:</b></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>Note: For Single Server Installation, only SO-A will be displayed; therefore only one box will be selected.</p> | <p>Normal or Low Capacity Configuration:</p> <table border="1"> <thead> <tr> <th colspan="3">X52_SO <input type="checkbox"/> Prefer Network Element as spare</th> </tr> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td>SO-B</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <table border="1"> <thead> <tr> <th colspan="3">X52_SO <input type="checkbox"/> Prefer Network Element as spare</th> </tr> <tr> <th>Server</th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> | X52_SO <input type="checkbox"/> Prefer Network Element as spare |  |  | Server | SG Inclusion | Preferred HA Role | SO-A | <input checked="" type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare            | SO-B | <input checked="" type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare            | X52_SO <input type="checkbox"/> Prefer Network Element as spare |  |  | Server | SG Inclusion | Preferred HA Role | SO-A | <input checked="" type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare |
| X52_SO <input type="checkbox"/> Prefer Network Element as spare |  |   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
| Server  | SG Inclusion   | Preferred HA Role   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
| SO-A  | <input checked="" type="checkbox"/> Include in SG  | <input type="checkbox"/> Prefer server as spare   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
| SO-B  | <input checked="" type="checkbox"/> Include in SG  | <input type="checkbox"/> Prefer server as spare   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
| X52_SO <input type="checkbox"/> Prefer Network Element as spare |  |   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
| Server  | SG Inclusion   | Preferred HA Role   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
| SO-A  | <input checked="" type="checkbox"/> Include in SG  | <input type="checkbox"/> Prefer server as spare   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
| <p>20.</p> <input type="checkbox"/>                             | <p><b>Active NOAMP VIP:</b></p> <p>For <b>DR NOAMP</b> (second site) servers only:</p> <p>Check the Preferred Spare boxes next to their names</p>  | <table border="1"> <thead> <tr> <th colspan="3">Network Element as spare</th> </tr> <tr> <th></th> <th>SG Inclusion</th> <th>Preferred HA Role</th> </tr> </thead> <tbody> <tr> <td></td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input checked="" type="checkbox"/> Prefer server as spare</td> </tr> <tr> <td></td> <td><input checked="" type="checkbox"/> Include in SG</td> <td><input checked="" type="checkbox"/> Prefer server as spare</td> </tr> </tbody> </table> <p><b>NOTE:DR NOAMP</b> will not be accessible via their <b>VIP</b> unless they become the <b>Active NOAMP</b>. Individual servers in the <b>DR NOAMP</b> server group are always accessible by their <b>XMI</b> addresses.</p> <p>3-site configuration: If the installation plans for 3-site redundancy, “Preferred Spare” boxes are not checked.</p>   | Network Element as spare  |  |  |        | SG Inclusion | Preferred HA Role |      | <input checked="" type="checkbox"/> Include in SG | <input checked="" type="checkbox"/> Prefer server as spare |      | <input checked="" type="checkbox"/> Include in SG | <input checked="" type="checkbox"/> Prefer server as spare |   |  |  |        |              |                   |      |   |   |
| Network Element as spare  |  |   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
|   | SG Inclusion   | Preferred HA Role   |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
|   | <input checked="" type="checkbox"/> Include in SG  | <input checked="" type="checkbox"/> Prefer server as spare  |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |
|   | <input checked="" type="checkbox"/> Include in SG  | <input checked="" type="checkbox"/> Prefer server as spare  |   |  |  |        |              |                   |      |   |  |      |   |  |   |  |  |        |              |                   |      |   |   |



**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step                                | Procedure   | Result |
|-------------------------------------|---|--------|
| <p>21.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP:</b></p> <p>1) The user should be presented with a banner information message stating <b>“Pre-Validation passed”</b>.</p> <p>2) Select the <b>“Apply”</b> dialogue button.</p> |        |
| <p>22.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP:</b></p> <p>The user should be presented with a banner information message stating <b>“Data committed”</b>.</p>  |        |
| <p>23.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP:</b></p> <p>Click the <b>“Add”</b> dialogue button for the <b>VIP Address</b>.</p>   |        |
| <p>24.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP:</b></p> <p>Input the <b>VIP Address</b></p>   |        |

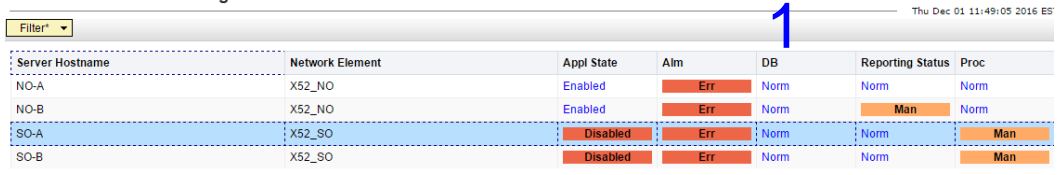
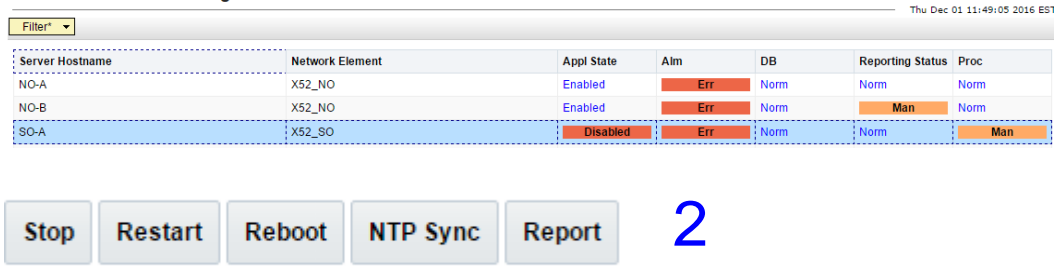
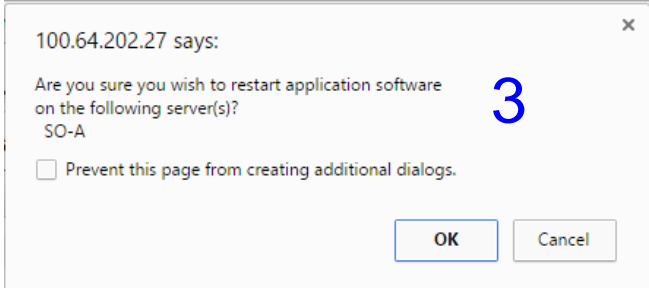
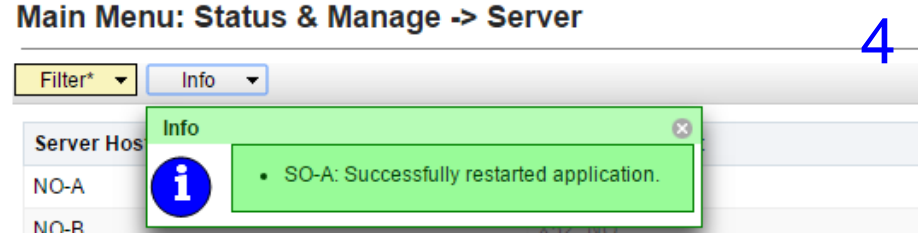
**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step                                       | Procedure   | Result  |                     |                    |                     |                     |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
|--|---|---|---------------------|--------------------|---------------------|---------------------|--------------------|-----------------|-------------|-------------|------|--------|-----|--------|------|--------|---------------|----------------|------|---------|-----|---------|------|--------|---------------|--|------|---------|-----|--------|------|--------|------------|--|------|--------|-----|--------|------|--------|------------|--|------|-------------|-------------|--|--|--------|----|--|------|-------------|-------------|--|--|--------|----|--|------|-------------|-------------|--|--|--------|----|--|------|-------------|-------------|--|--|--------|----|--|
| <p>25.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>1) The user should be presented with a banner information message stating <b>“Pre-Validation passed”</b>.</p> <p>2) Select the <b>“Apply”</b> dialogue button.</p> |  <p><b>Main Menu: Configuration -&gt; Server Groups [Edit]</b></p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Pre-Validation passed - Data NOT committed ...</li> </ul> <p>Function: NONE</p> <p>VIP Assignment</p> <p>VIP Address: 10.240.199.157</p> <p>Buttons: Add, Remove, Ok, <b>Apply</b>, Cancel</p> <p>1</p> <p>2</p>  |                     |                    |                     |                     |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| <p>26.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>The user should be presented with a banner information message stating <b>“Data committed”</b>.</p>  |  <p><b>Main Menu: Configuration -&gt; Server Groups [Edit]</b></p> <p>Info</p> <p>Info</p> <ul style="list-style-type: none"> <li>Data committed!</li> </ul> <p>server group : SO_grp</p> <p>Function: NONE</p>  |                     |                    |                     |                     |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| <p>27.</p> <p><input type="checkbox"/></p> | <p><b>IMPORTANT:</b></p> <p>Wait at least <b>5 minutes</b> before proceeding on to the next Step.</p>   | <ul style="list-style-type: none"> <li>Now that the server(s) have been paired within a Server Group they must establish a master/slave relationship for High Availability (HA). It may take several minutes for this process to be completed.</li> <li>Note: Single Server Configurations do not establish master/slave relationship for High Availability (HA).</li> <li>Allow a minimum of <b>5 minutes</b> before continuing to the next Step.</li> </ul>   |                     |                    |                     |                     |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| <p>28.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Status &amp; Manage</b><br/>→ <b>HA</b></p> <p>...as shown on the right.</p>  |  <p><b>Main Menu: Status &amp; Manage -&gt; HA</b></p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> <th>Active VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Active</td> <td>N/A</td> <td>Active</td> <td>NO-B</td> <td>X52_NO</td> <td>Network OAM&amp;P</td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td>Standby</td> <td>N/A</td> <td>Standby</td> <td>NO-A</td> <td>X52_NO</td> <td>Network OAM&amp;P</td> <td></td> </tr> <tr> <td>SO-A</td> <td>Standby</td> <td>N/A</td> <td>Active</td> <td>SO-B</td> <td>X52_SO</td> <td>System OAM</td> <td></td> </tr> <tr> <td>SO-B</td> <td>Active</td> <td>N/A</td> <td>Active</td> <td>SO-A</td> <td>X52_SO</td> <td>System OAM</td> <td></td> </tr> <tr> <td>MP-2</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>MP</td> <td></td> </tr> <tr> <td>MP-3</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>MP</td> <td></td> </tr> <tr> <td>MP-4</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>MP</td> <td></td> </tr> <tr> <td>MP-1</td> <td>Unavailable</td> <td>Unavailable</td> <td></td> <td></td> <td>X52_SO</td> <td>MP</td> <td></td> </tr> </tbody> </table> <p>Thu Dec 01 11:4</p> | Hostname            | OAM HA Role        | Application HA Role | Max Allowed HA Role | Mate Hostname List | Network Element | Server Role | Active VIPs | NO-A | Active | N/A | Active | NO-B | X52_NO | Network OAM&P | 10.240.199.154 | NO-B | Standby | N/A | Standby | NO-A | X52_NO | Network OAM&P |  | SO-A | Standby | N/A | Active | SO-B | X52_SO | System OAM |  | SO-B | Active | N/A | Active | SO-A | X52_SO | System OAM |  | MP-2 | Unavailable | Unavailable |  |  | X52_SO | MP |  | MP-3 | Unavailable | Unavailable |  |  | X52_SO | MP |  | MP-4 | Unavailable | Unavailable |  |  | X52_SO | MP |  | MP-1 | Unavailable | Unavailable |  |  | X52_SO | MP |  |
| Hostname                                   | OAM HA Role   | Application HA Role   | Max Allowed HA Role | Mate Hostname List | Network Element     | Server Role         | Active VIPs        |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| NO-A                                       | Active  | N/A   | Active              | NO-B               | X52_NO              | Network OAM&P       | 10.240.199.154     |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| NO-B                                       | Standby   | N/A   | Standby             | NO-A               | X52_NO              | Network OAM&P       |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| SO-A                                       | Standby   | N/A   | Active              | SO-B               | X52_SO              | System OAM          |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| SO-B                                       | Active  | N/A   | Active              | SO-A               | X52_SO              | System OAM          |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| MP-2                                       | Unavailable   | Unavailable   |                     |                    | X52_SO              | MP                  |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| MP-3                                       | Unavailable   | Unavailable   |                     |                    | X52_SO              | MP                  |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| MP-4                                       | Unavailable   | Unavailable   |                     |                    | X52_SO              | MP                  |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |
| MP-1                                       | Unavailable   | Unavailable   |                     |                    | X52_SO              | MP                  |                    |                 |             |             |      |        |     |        |      |        |               |                |      |         |     |         |      |        |               |  |      |         |     |        |      |        |            |  |      |        |     |        |      |        |            |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |      |             |             |  |  |        |    |  |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step              | Procedure   | Result  |                     |                    |                         |                     |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
|-------------------|---|---|---------------------|--------------------|-------------------------|---------------------|--------------------|------------------|-------------|-------------|-------------------|----------|-----|--------|-------------------|-----------------|------------|-------------|-------------------|---------|------|--------|-------------------|-----------------|------------|----------|-------------------|--------|------|--------|-------------------|-----------------|------------|-------------|-------------------|---------|-----|--------|-------------------|-----------------|------------|--|-------------------|---------|-----|--------|-------------------|-----------------|---------------|--|-------------------|--------|-----|--------|-------------------|-----------------|---------------|-------------|-------------------|-------|-----|--------|-------------------|-----------------|---------------|--|-------------------|-------|-----|--------|-------------------|-----------------|---------------|--|----------|-------------|---------------------|---------------------|--------------------|-----------------|-------------|-------------|------|--------|-----|--------|--|-----------|---------------|--------------|------|--------|-----|--------|--|-----------|------------|--------------|
| 29.               | <p><b>Active NOAMP VIP:</b></p> <p><input type="checkbox"/></p> <p><b>Note:</b></p> <p>DRNO servers will have <b>OAM MAX HA Role of Spare</b> and no <b>Active VIPs</b> (shown in red)</p> <p>SOAM server(s) will have <b>OAM MAX HA Role of Active</b> or <b>Standby</b> and an <b>Active VIP</b>.</p>   | <p>Normal or Low Capacity Configuration:</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM Max HA Role</th> <th>Application Max HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> <th>Active VIPs</th> </tr> </thead> <tbody> <tr> <td>BL119122305-SO-1A</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>BL119122306-SO-1B</td> <td>SO_UDR_Site1_VM</td> <td>System OAM</td> <td>10.240.168.</td> </tr> <tr> <td>BL119122306-SO-1B</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>BL119122305-SO-1A</td> <td>SO_UDR_Site1_VM</td> <td>System OAM</td> <td></td> </tr> <tr> <td>BL119121305-SO-2A</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>BL119121306-SO-2B</td> <td>SO_UDR_Site2_VM</td> <td>System OAM</td> <td>10.240.168.</td> </tr> <tr> <td>BL119121306-SO-2B</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>BL119121305-SO-2A</td> <td>SO_UDR_Site2_VM</td> <td>System OAM</td> <td></td> </tr> <tr> <td>BL119122301-NO-1A</td> <td>Standby</td> <td>OOS</td> <td>Active</td> <td>BL119122303-NO-1B</td> <td>NO_UDR_Site1_VM</td> <td>Network OAM&amp;P</td> <td></td> </tr> <tr> <td>BL119122303-NO-1B</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td>BL119122301-NO-1A</td> <td>NO_UDR_Site1_VM</td> <td>Network OAM&amp;P</td> <td>10.240.168.</td> </tr> <tr> <td>BL119121301-NO-2A</td> <td>Spare</td> <td>OOS</td> <td>Active</td> <td>BL119121303-NO-2B</td> <td>NO_UDR_Site2_VM</td> <td>Network OAM&amp;P</td> <td></td> </tr> <tr> <td>BL119121303-NO-2B</td> <td>Spare</td> <td>OOS</td> <td>Active</td> <td>BL119121301-NO-2A</td> <td>NO_UDR_Site2_VM</td> <td>Network OAM&amp;P</td> <td></td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>OAM HA Role</th> <th>Application HA Role</th> <th>Max Allowed HA Role</th> <th>Mate Hostname List</th> <th>Network Element</th> <th>Server Role</th> <th>Active VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td></td> <td>NO_SUN_05</td> <td>Network OAM&amp;P</td> <td>10.240.15.40</td> </tr> <tr> <td>SO-A</td> <td>Active</td> <td>OOS</td> <td>Active</td> <td></td> <td>SO_SUN_05</td> <td>System OAM</td> <td>10.240.15.41</td> </tr> </tbody> </table> | Hostname            | OAM Max HA Role    | Application Max HA Role | Max Allowed HA Role | Mate Hostname List | Network Element  | Server Role | Active VIPs | BL119122305-SO-1A | Active   | OOS | Active | BL119122306-SO-1B | SO_UDR_Site1_VM | System OAM | 10.240.168. | BL119122306-SO-1B | Standby | OOS  | Active | BL119122305-SO-1A | SO_UDR_Site1_VM | System OAM |          | BL119121305-SO-2A | Active | OOS  | Active | BL119121306-SO-2B | SO_UDR_Site2_VM | System OAM | 10.240.168. | BL119121306-SO-2B | Standby | OOS | Active | BL119121305-SO-2A | SO_UDR_Site2_VM | System OAM |  | BL119122301-NO-1A | Standby | OOS | Active | BL119122303-NO-1B | NO_UDR_Site1_VM | Network OAM&P |  | BL119122303-NO-1B | Active | OOS | Active | BL119122301-NO-1A | NO_UDR_Site1_VM | Network OAM&P | 10.240.168. | BL119121301-NO-2A | Spare | OOS | Active | BL119121303-NO-2B | NO_UDR_Site2_VM | Network OAM&P |  | BL119121303-NO-2B | Spare | OOS | Active | BL119121301-NO-2A | NO_UDR_Site2_VM | Network OAM&P |  | Hostname | OAM HA Role | Application HA Role | Max Allowed HA Role | Mate Hostname List | Network Element | Server Role | Active VIPs | NO-A | Active | OOS | Active |  | NO_SUN_05 | Network OAM&P | 10.240.15.40 | SO-A | Active | OOS | Active |  | SO_SUN_05 | System OAM | 10.240.15.41 |
| Hostname          | OAM Max HA Role   | Application Max HA Role   | Max Allowed HA Role | Mate Hostname List | Network Element         | Server Role         | Active VIPs        |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| BL119122305-SO-1A | Active  | OOS   | Active              | BL119122306-SO-1B  | SO_UDR_Site1_VM         | System OAM          | 10.240.168.        |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| BL119122306-SO-1B | Standby   | OOS   | Active              | BL119122305-SO-1A  | SO_UDR_Site1_VM         | System OAM          |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| BL119121305-SO-2A | Active  | OOS   | Active              | BL119121306-SO-2B  | SO_UDR_Site2_VM         | System OAM          | 10.240.168.        |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| BL119121306-SO-2B | Standby   | OOS   | Active              | BL119121305-SO-2A  | SO_UDR_Site2_VM         | System OAM          |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| BL119122301-NO-1A | Standby   | OOS   | Active              | BL119122303-NO-1B  | NO_UDR_Site1_VM         | Network OAM&P       |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| BL119122303-NO-1B | Active  | OOS   | Active              | BL119122301-NO-1A  | NO_UDR_Site1_VM         | Network OAM&P       | 10.240.168.        |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| BL119121301-NO-2A | Spare   | OOS   | Active              | BL119121303-NO-2B  | NO_UDR_Site2_VM         | Network OAM&P       |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| BL119121303-NO-2B | Spare   | OOS   | Active              | BL119121301-NO-2A  | NO_UDR_Site2_VM         | Network OAM&P       |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| Hostname          | OAM HA Role   | Application HA Role   | Max Allowed HA Role | Mate Hostname List | Network Element         | Server Role         | Active VIPs        |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| NO-A              | Active  | OOS   | Active              |                    | NO_SUN_05               | Network OAM&P       | 10.240.15.40       |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| SO-A              | Active  | OOS   | Active              |                    | SO_SUN_05               | System OAM          | 10.240.15.41       |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| 30.               | <p><b>Active NOAMP VIP:</b></p> <p><input type="checkbox"/></p> <p>Restarting the OAM Server Application</p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Status &amp; Manage</b><br/>→ <b>Server</b></p> <p>...as shown on the right.</p>   | <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 11:49:05 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>SO-B</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table>   | Server Hostname     | Network Element    | Appl State              | Alm                 | DB                 | Reporting Status | Proc        | NO-A        | X52_NO            | Enabled  | Err | Norm   | Norm              | Norm            | NO-B       | X52_NO      | Enabled           | Err     | Norm | Man    | Norm              | SO-A            | X52_SO     | Disabled | Err               | Norm   | Norm | Man    | SO-B              | X52_SO          | Disabled   | Err         | Norm              | Norm    | Man |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| Server Hostname   | Network Element   | Appl State  | Alm                 | DB                 | Reporting Status        | Proc                |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| NO-A              | X52_NO  | Enabled   | Err                 | Norm               | Norm                    | Norm                |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| NO-B              | X52_NO  | Enabled   | Err                 | Norm               | Man                     | Norm                |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| SO-A              | X52_SO  | Disabled  | Err                 | Norm               | Norm                    | Man                 |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| SO-B              | X52_SO  | Disabled  | Err                 | Norm               | Norm                    | Man                 |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| 31.               | <p><b>Active NOAMP VIP:</b></p> <p><input type="checkbox"/></p> <p>1) The “A” and “B” servers should now appear in the right panel. (Only “A” for single server installs)</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. (Only “A” server for single server configuration)</p> | <p>Normal or Low Capacity Configuration:</p> <table border="1"> <tbody> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>SO-B</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <table border="1"> <tbody> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table>   | SO-A                | X52_SO             | Disabled                | Err                 | Norm               | Norm             | Man         | SO-B        | X52_SO            | Disabled | Err | Norm   | Norm              | Man             | SO-A       | X52_SO      | Disabled          | Err     | Norm | Norm   | Man               |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| SO-A              | X52_SO  | Disabled  | Err                 | Norm               | Norm                    | Man                 |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| SO-B              | X52_SO  | Disabled  | Err                 | Norm               | Norm                    | Man                 |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |
| SO-A              | X52_SO  | Disabled  | Err                 | Norm               | Norm                    | Man                 |                    |                  |             |             |                   |          |     |        |                   |                 |            |             |                   |         |      |        |                   |                 |            |          |                   |        |      |        |                   |                 |            |             |                   |         |     |        |                   |                 |            |  |                   |         |     |        |                   |                 |               |  |                   |        |     |        |                   |                 |               |             |                   |       |     |        |                   |                 |               |  |                   |       |     |        |                   |                 |               |  |          |             |                     |                     |                    |                 |             |             |      |        |     |        |  |           |               |              |      |        |     |        |  |           |            |              |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step  | Procedure  | Result  |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
|---|--|---|-----------------|-----------------|------------------|------|----|------------------|------|------|--------|---------|-----|------|------|------|------|--------|---------|-----|------|-----|------|------|--------|----------|-----|------|------|-----|------|--------|----------|-----|------|------|-----|-----------------|-----------------|------------|-----|----|------------------|------|------|--------|---------|-----|------|------|------|------|--------|---------|-----|------|-----|------|------|--------|----------|-----|------|------|-----|------------|------|------|---|------|------|
| <p><b>32.</b></p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>1) Using the mouse, select <b>Server A</b>. The line entry should now be highlighted</p> <p>2) Select the <b>“Restart”</b> dialogue button from the bottom left corner of the screen.</p> <p>3) Click the <b>“OK”</b> button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for <b>Server A</b> stating: <b>“Successfully restarted application”</b>.</p> <p><b>NOTE:</b>The user may need to use the vertical scroll-bar in order to make the <b>“Restart”</b> dialogue button visible.</p> | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p>  <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> <tr> <td>SO-B</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p>  <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Buttons: Stop, Restart, Reboot, NTP Sync, Report</p>  <p>100.64.202.27 says:<br/>Are you sure you wish to restart application software on the following server(s)?<br/>SO-A<br/><input type="checkbox"/> Prevent this page from creating additional dialogs.<br/>OK Cancel</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p>  <p>Filter* Info</p> <table border="1"> <thead> <tr> <th>Server Hos</th> <th>Info</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td rowspan="3">• SO-A: Successfully restarted application.</td> </tr> <tr> <td>NO-B</td> </tr> <tr> <td>NO-R</td> </tr> </tbody> </table> | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Disabled | Err | Norm | Norm | Man | SO-B | X52_SO | Disabled | Err | Norm | Norm | Man | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Disabled | Err | Norm | Norm | Man | Server Hos | Info | NO-A | • SO-A: Successfully restarted application. | NO-B | NO-R |
| Server Hostname                                   | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| NO-A  | X52_NO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| NO-B  | X52_NO   | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| SO-A  | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| SO-B  | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| Server Hostname                                   | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| NO-A  | X52_NO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| NO-B  | X52_NO   | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| SO-A  | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| Server Hos  | Info   |   |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| NO-A  | • SO-A: Successfully restarted application.  |   |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| NO-B  |  |   |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |
| NO-R  |  |   |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |          |     |      |      |     |            |      |      |   |      |      |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step  | Procedure   | Result  |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
|---|---|---|-----------------|-----------------|------------------|------|----|------------------|------|------|--------|---------|-----|------|------|------|------|--------|---------|-----|------|-----|------|------|--------|---------|------|------|------|------|------|--------|----------|-----|------|------|-----|-----------------|-----------------|------------|-----|----|------------------|------|------|--------|---------|-----|------|------|------|------|--------|---------|-----|------|-----|------|------|--------|---------|------|------|------|------|
| <p><b>33.</b></p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Status &amp; Manage</b><br/>→ <b>Server</b></p> <p>...as shown on the right.</p>  | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 11:53:41 2016 ES</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>SO-B</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 11:53:41</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm | SO-B | X52_SO | Disabled | Err | Norm | Norm | Man | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm |
| Server Hostname                                   | Network Element   | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| NO-A  | X52_NO  | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| NO-B  | X52_NO  | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| SO-A  | X52_SO  | Enabled   | Warn            | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| SO-B  | X52_SO  | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| Server Hostname                                   | Network Element   | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| NO-A  | X52_NO  | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| NO-B  | X52_NO  | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| SO-A  | X52_SO  | Enabled   | Warn            | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| <p><b>34.</b></p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>Verify that the “<b>Appl State</b>” now shows “<b>Enabled</b>” and that the “<b>Alm, Repl, Coll, DB, HA &amp; Proc</b>” status columns all show “<b>Norm</b>” for <b>OAM Server A</b> before proceeding to the next Step.</p> <p><b>NOTE:</b> If user chooses to refresh the Server status screen in advance of the default setting (15-30 sec.). This may be done by simply reselecting the “<b>Status &amp; Manage</b> → <b>Server</b>” option from the Main menu on the left.</p> | <p>Normal or Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 11:53:41 2016 ES</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>SO-B</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 11:53:41</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm | SO-B | X52_SO | Disabled | Err | Norm | Norm | Man | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm |
| Server Hostname                                   | Network Element   | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| NO-A  | X52_NO  | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| NO-B  | X52_NO  | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| SO-A  | X52_SO  | Enabled   | Warn            | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| SO-B  | X52_SO  | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| Server Hostname                                   | Network Element   | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| NO-A  | X52_NO  | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| NO-B  | X52_NO  | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |
| SO-A  | X52_SO  | Enabled   | Warn            | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |

**Perform steps 35 – 38** for multiple server Configurations only (not single server).

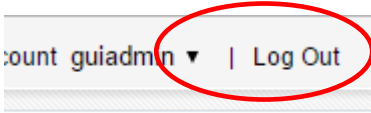
**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step  | Procedure  | Result  |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
|---|--|---|-----------------|-----------------|------------------|------|----|------------------|------|------|--------|---------|-----|------|------|------|------|--------|---------|-----|------|-----|------|------|--------|---------|------|------|------|------|------|--------|----------|-----|------|------|------|
| <p><b>35.</b></p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>1) Using the mouse, select <b>Server B</b>. The line entry should now be highlighted</p> <p>2) Select the <b>“Restart”</b> dialogue button from the bottom left corner of the screen.</p> <p>3) Click the <b>“OK”</b> button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) for <b>Server B</b> stating: <b>“Successfully restarted application”</b>.</p> <p><i>NOTE: The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</i></p> | <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 11:57:08 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>SO-B</td> <td>X52_SO</td> <td>Disabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Man</td> </tr> </tbody> </table> <p>Buttons: Stop, Restart, Reboot, NTP Sync, Report</p> <p>Dialog Box: 100.64.202.27 says: Are you sure you wish to restart application software on the following server(s)? SO-A</p> <p>Info Message: SO-B: Successfully restarted application.</p> | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm | SO-B | X52_SO | Disabled | Err | Norm | Norm | Man  |
| Server Hostname                                   | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| NO-A  | X52_NO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| NO-B  | X52_NO   | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| SO-A  | X52_SO   | Enabled   | Warn            | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| SO-B  | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| <p><b>36.</b></p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/> → Status &amp; Manage<br/> → Server</p> <p>...as shown on the right.</p>   | <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 11:58:11</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>SO-B</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table>   | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm | SO-B | X52_SO | Enabled  | Err | Norm | Norm | Norm |
| Server Hostname                                   | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| NO-A  | X52_NO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| NO-B  | X52_NO   | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| SO-A  | X52_SO   | Enabled   | Warn            | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |
| SO-B  | X52_SO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |          |     |      |      |      |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step   | Procedure   | Result  |                 |                     |                  |      |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
|--|---|---|-----------------|---------------------|------------------|------|--------|--------------------------------------|------|--------|--------------------------------------|---------|--------|--------------------------------------|------|--------|--------------------------------------|--------|---------|-----|------|-----|------|------|--------|---------|------|------|------|------|------|--------|---------|-----|------|------|------|
| <p>37.</p> <p><input type="checkbox"/></p>   | <p><b>Active NOAMP VIP:</b></p> <p>Verify that the “<b>Appl State</b>” now shows “<b>Enabled</b>” and that the “<b>Alm, Repl, Coll, DB, HA &amp; Proc</b>” status columns all show “<b>Norm</b>” for <b>OAM Server A</b> and <b>OAM Server B</b> before proceeding to the next Step.</p> <p><b>NOTE:</b> If user chooses to refresh the Server status screen in advance of the default setting (15-30 sec.). This may be done by simply reselecting the “<b>Status &amp; Manage</b> → <b>Server</b>” option from the Main menu on the left.</p> | <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 11:58:11</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>NO-B</td> <td>X52_NO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Man</td> <td>Norm</td> </tr> <tr> <td>SO-A</td> <td>X52_SO</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>SO-B</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> | Server Hostname | Network Element     | Appl State       | Alm  | DB     | Reporting Status                     | Proc | NO-A   | X52_NO                               | Enabled | Err    | Norm                                 | Norm | Norm   | NO-B                                 | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm | SO-B | X52_SO | Enabled | Err | Norm | Norm | Norm |
| Server Hostname  | Network Element   | Appl State  | Alm             | DB                  | Reporting Status | Proc |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| NO-A   | X52_NO  | Enabled   | Err             | Norm                | Norm             | Norm |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| NO-B   | X52_NO  | Enabled   | Err             | Norm                | Man              | Norm |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| SO-A   | X52_SO  | Enabled   | Warn            | Norm                | Norm             | Norm |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| SO-B   | X52_SO  | Enabled   | Err             | Norm                | Norm             | Norm |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| <p>Repeat the steps above for each <b>DR NOAMP</b> and <b>SOAM</b> site being installed.</p> |   |   |                 |                     |                  |      |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| <p>38.</p> <p><input type="checkbox"/></p>   | <p><b>Active NOAMP VIP:</b></p> <p>For <b>Primary NOAMP Standby</b> server only: Move the server back to 'Active'</p> <p><b>Main Menu</b><br/>→ <b>Status &amp; Manage</b><br/>→ <b>HA[Edit]</b></p> <p>Find the row for the Primary NOAMP Standby server and change “<b>Max Allowed HA Role</b>” back to “<b>Active</b>”.</p>  | <p>Main Menu: Status &amp; Manage -&gt; HA [Edit]</p> <p>Info*</p> <p><b>Modifying HA attributes</b></p> <table border="1"> <thead> <tr> <th>Hostname</th> <th>Max Allowed HA Role</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td>Active</td> <td>The maximum desired HA Role for NO-A</td> </tr> <tr> <td>NO-B</td> <td>Active</td> <td>The maximum desired HA Role for NO-B</td> </tr> <tr> <td>SO-A</td> <td>Active</td> <td>The maximum desired HA Role for SO-A</td> </tr> <tr> <td>SO-B</td> <td>Active</td> <td>The maximum desired HA Role for SO-B</td> </tr> </tbody> </table> <p>Ok Cancel</p>  | Hostname        | Max Allowed HA Role | Description      | NO-A | Active | The maximum desired HA Role for NO-A | NO-B | Active | The maximum desired HA Role for NO-B | SO-A    | Active | The maximum desired HA Role for SO-A | SO-B | Active | The maximum desired HA Role for SO-B |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| Hostname   | Max Allowed HA Role   | Description   |                 |                     |                  |      |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| NO-A   | Active  | The maximum desired HA Role for NO-A  |                 |                     |                  |      |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| NO-B   | Active  | The maximum desired HA Role for NO-B  |                 |                     |                  |      |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| SO-A   | Active  | The maximum desired HA Role for SO-A  |                 |                     |                  |      |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |
| SO-B   | Active  | The maximum desired HA Role for SO-B  |                 |                     |                  |      |        |                                      |      |        |                                      |         |        |                                      |      |        |                                      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |

**Procedure 18:** Pairing the OAM Servers for SOAM or DR NOAMP sites

| Step                                     | Procedure  | Result  |
|--|--|---|
| 39.                                      | <p><b>Active NOAMP VIP:</b><br/>Click the “Logout” link on the server GUI.</p> |  |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |  |   |

**8.6 Configuring MP Server Groups (All SOAM sites)**

The user should be aware that during the Message Processor(MP) 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.




This procedure creates server groups for each MP..

**Requirements:**

- **Procedure 15: Create Configuration for Remaining Servers** has been completed.
- **Procedure 17: OAM Pairing for the Primary NOAMP Servers** has been completed.
- **Procedure 18: Pairing the OAM Servers for SOAM or DR NOAMP sites** has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**Procedure 19: Configuring MP Server Groups**

| Step                               | Procedure   | Result   |
|------------------------------------|---|--|
| <p>1.</p> <input type="checkbox"/> | <p><b>Active NOAMPVIP:</b><br/>Launch an approved web browser and connect to the <b>XMI Virtual IP Address(VIP)</b> of the <b>Active NOAMP site</b> using <a href="https://">https://</a></p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: <b>“Continue to this website (not recommended)”</b>.</p> |  <p><b>There is a problem with this website’s security certificate</b></p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn’t match the site’s web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p> <a href="#">Go to my homepage instead</a></p> <p> <a href="#">Continue to this webpage (not recommended)</a></p> |



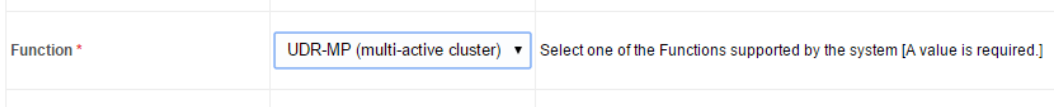
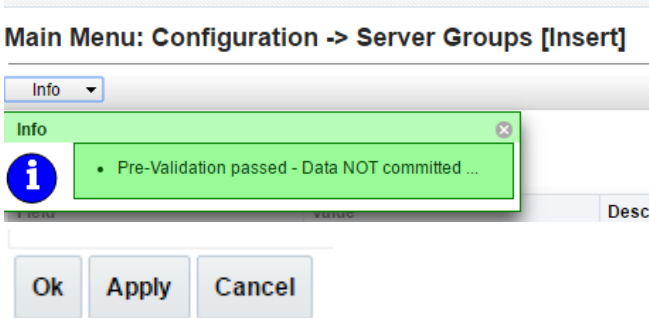
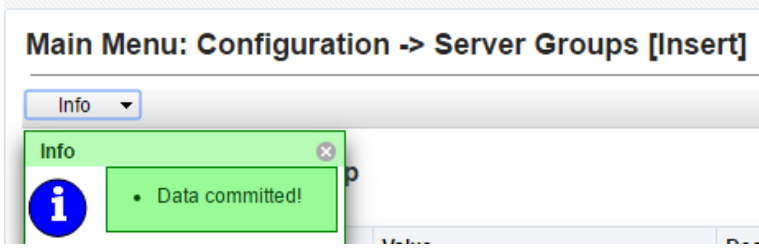
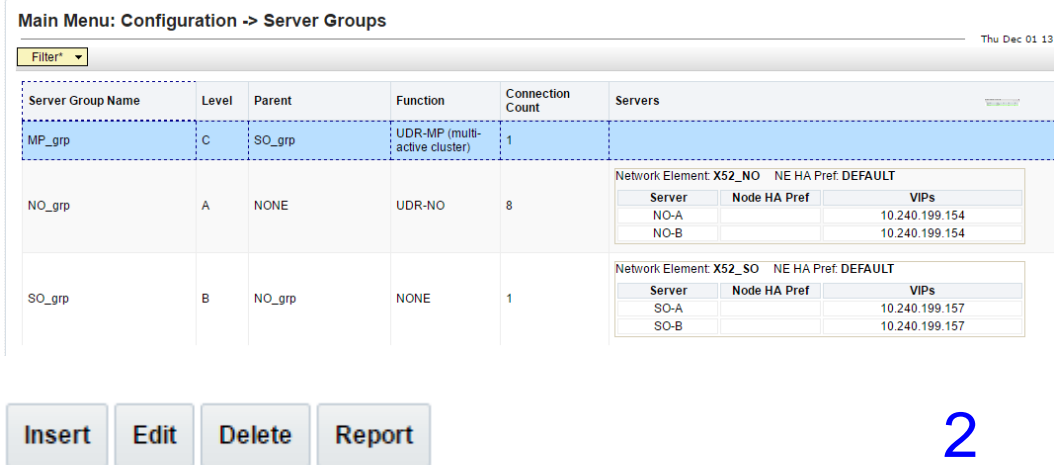
Procedure 19: Configuring MP Server Groups

| Step                                      | Procedure   | Result  |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
|---|---|---|-------------------|------------------|---|----------|------------------|---------|--------|---|----------------|--------|---|---|--------|--------------|------|------|--|----------------|------|--|----------------|--------|---|--------|------|---|---|--------|--------------|------|------|--|----------------|------|--|----------------|
| <p>2.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b><br/>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p> |   |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>3.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b><br/>The user should be presented the Main Menu as shown on the right.</p>  |   |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b><br/>Select...</p> <p><b>Main Menu</b><br/>→ Configuration<br/>→ 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>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td>                     Network Element: X52_NO NE HA Pref: DEFAULT<br/> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> </td> </tr> <tr> <td>SO_grp</td> <td>B</td> <td>NO_grp</td> <td>NONE</td> <td>1</td> <td>                     Network Element: X52_SO NE HA Pref: DEFAULT<br/> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> </td> </tr> </tbody> </table> | Server Group Name | Level            | Parent  | Function | Connection Count | Servers | NO_grp | A | NONE           | UDR-NO | 8 | Network Element: X52_NO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server | Node HA Pref | VIPs | NO-A |  | 10.240.199.154 | NO-B |  | 10.240.199.154 | SO_grp | B | NO_grp | NONE | 1 | Network Element: X52_SO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> | Server | Node HA Pref | VIPs | SO-A |  | 10.240.199.157 | SO-B |  | 10.240.199.157 |
| Server Group Name                         | Level   | Parent  | Function          | Connection Count | Servers   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO_grp                                    | A   | NONE  | UDR-NO            | 8                | Network Element: X52_NO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server   | Node HA Pref     | VIPs    | NO-A   |   | 10.240.199.154 | NO-B   |   | 10.240.199.154  |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Server                                    | Node HA Pref  | VIPs  |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO-A                                      |   | 10.240.199.154  |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO-B                                      |   | 10.240.199.154  |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO_grp                                    | B   | NO_grp  | NONE              | 1                | Network Element: X52_SO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> | Server   | Node HA Pref     | VIPs    | SO-A   |   | 10.240.199.157 | SO-B   |   | 10.240.199.157  |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Server                                    | Node HA Pref  | VIPs  |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO-A                                      |   | 10.240.199.157  |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO-B                                      |   | 10.240.199.157  |                   |                  |   |          |                  |         |        |   |                |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |

Procedure 19: Configuring MP Server Groups

| Step                                      | Procedure   | Result  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
|---|---|---|-------------------|------------------|---|---------------------|----------------------|---|---------|--------------------|---|----------|---------------------|---|------------|-----------------------|--|----------------------------------|---|--|------|--|----------------|--------|---|--------|------|---|---|--------|--------------|------|------|--|----------------|------|--|----------------|
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b></p> <p>1) The user will be presented with the “<b>Server Groups</b>” configuration screen as shown on the right.</p> <p>2) Select the “<b>Insert</b>” dialogue button from the bottom left corner of the screen.</p> <p><b>NOTE:</b> <i>The user may need to use the vertical scroll-bar in order to make the “<b>Insert</b>” dialogue button visible.</i></p> | <p>Main Menu: Configuration -&gt; Server Groups <span style="float: right;">Thu Dec 01</span></p> <p>Filter* <input type="text"/></p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td>                     Network Element: X52_NO NE HA Pref: DEFAULT<br/> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> </td> </tr> <tr> <td>SO_grp</td> <td>B</td> <td>NO_grp</td> <td>NONE</td> <td>1</td> <td>                     Network Element: X52_SO NE HA Pref: DEFAULT<br/> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> </td> </tr> </tbody> </table> <p style="text-align: right; font-size: 2em; color: blue;">1</p> <p style="text-align: center; font-size: 2em; color: blue;">2</p> <p>Insert Edit Delete Report</p>   | Server Group Name | Level            | Parent  | Function            | Connection Count     | Servers   | NO_grp  | A                  | NONE  | UDR-NO   | 8                   | Network Element: X52_NO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server     | Node HA Pref          | VIPs   | NO-A                             |   | 10.240.199.154   | NO-B |  | 10.240.199.154 | SO_grp | B | NO_grp | NONE | 1 | Network Element: X52_SO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> | Server | Node HA Pref | VIPs | SO-A |  | 10.240.199.157 | SO-B |  | 10.240.199.157 |
| Server Group Name                         | Level   | Parent  | Function          | Connection Count | Servers   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO_grp                                    | A   | NONE  | UDR-NO            | 8                | Network Element: X52_NO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server              | Node HA Pref         | VIPs  | NO-A    |                    | 10.240.199.154  | NO-B     |                     | 10.240.199.154  |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Server                                    | Node HA Pref  | VIPs  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO-A                                      |   | 10.240.199.154  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO-B                                      |   | 10.240.199.154  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO_grp                                    | B   | NO_grp  | NONE              | 1                | Network Element: X52_SO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> | Server              | Node HA Pref         | VIPs  | SO-A    |                    | 10.240.199.157  | SO-B     |                     | 10.240.199.157  |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Server                                    | Node HA Pref  | VIPs  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO-A                                      |   | 10.240.199.157  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO-B                                      |   | 10.240.199.157  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b></p> <p>The user will be presented with the “<b>Server Groups [Insert]</b>” screen as shown on the right</p>  | <p>Main Menu: Configuration -&gt; Server Groups [Insert] <span style="float: right;">Thu Dec 01 13:39:03 20:</span></p> <p>Adding new server group</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td><input type="text"/></td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]</td> </tr> <tr> <td>Level *</td> <td>- 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.] [A value is required.]</td> </tr> <tr> <td>Parent *</td> <td>- Select Parent - ▾</td> <td>Select an existing Server Group or NONE [A value is required.]</td> </tr> <tr> <td>Function *</td> <td>- Select Function - ▾</td> <td>Select one of the Functions supported by the system [A value is required.]</td> </tr> <tr> <td>WAN Replication Connection Count</td> <td>1</td> <td>Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.]</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p> | Field             | Value            | Description   | Server Group Name * | <input type="text"/> | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.] | Level * | - 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.] [A value is required.] | Parent * | - Select Parent - ▾ | Select an existing Server Group or NONE [A value is required.]  | Function * | - Select Function - ▾ | Select one of the Functions supported by the system [A value is required.] | WAN Replication Connection Count | 1 | Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.] |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Field                                     | Value   | Description   |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Server Group Name *                       | <input type="text"/>  | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]   |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Level *                                   | - 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.] [A value is required.]   |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Parent *                                  | - Select Parent - ▾   | Select an existing Server Group or NONE [A value is required.]  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Function *                                | - Select Function - ▾   | Select one of the Functions supported by the system [A value is required.]  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| WAN Replication Connection Count          | 1   | Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.]  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>7.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b></p> <p>Input the <b>Server Group Name</b>.</p>   | <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Server Group Name *</td> <td>MP_grp</td> <td>Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]</td> </tr> </tbody> </table>  | Field             | Value            | Description   | Server Group Name * | MP_grp               | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.] |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Field                                     | Value   | Description   |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Server Group Name *                       | MP_grp  | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] [A value is required.]   |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>8.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b></p> <p>Select “<b>C</b>” on the “<b>Level</b>” pull-down menu..</p>  | <table border="1"> <tbody> <tr> <td>Level *</td> <td>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.] [A value is required.]</td> </tr> </tbody> </table>  | 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.] [A value is required.]   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| 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.] [A value is required.]   |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>9.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b></p> <p>Select the desired SOAM server group on the “<b>Parent</b>” pull-down menu.</p>   | <table border="1"> <tbody> <tr> <td>Parent *</td> <td>SO_grp ▾</td> <td>Select an existing Server Group or NONE [A value is required.]</td> </tr> </tbody> </table>   | Parent *          | SO_grp ▾         | Select an existing Server Group or NONE [A value is required.]  |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Parent *                                  | SO_grp ▾  | Select an existing Server Group or NONE [A value is required.]  |                   |                  |   |                     |                      |   |         |                    |   |          |                     |   |            |                       |  |                                  |   |  |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |

Procedure 19: Configuring MP Server Groups

| Step                                       | Procedure   | Result  |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
|--|---|---|-------------------------------|------------------|---|----------|------------------|---------|--------|---|----------------|-------------------------------|---|----------------|--------|---|------|--------|---|---|--------|--------------|------|------|--|----------------|------|--|----------------|--------|---|--------|------|---|---|--------|--------------|------|------|--|----------------|------|--|----------------|
| <p>10.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b><br/>Select “<b>UDR-MP (multi-active cluster)</b>” on the “<b>Function</b>” pull-down menu.</p>   |  <p>Function * <span style="border: 1px solid black; padding: 2px;">UDR-MP (multi-active cluster) ▼</span> Select one of the Functions supported by the system [A value is required.]</p>   |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>11.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b><br/>1) The user should be presented with a banner information message stating “<b>Pre-Validation passed</b>”.<br/><br/>2) Select the “<b>Apply</b>” dialogue button.</p>                       |  <p>Main Menu: Configuration -&gt; Server Groups [Insert]</p> <p>Info ▼</p> <p>Info</p> <ul style="list-style-type: none"> <li>• Pre-Validation passed - Data NOT committed ...</li> </ul> <p>Desc</p> <p>Ok Apply Cancel</p> <p style="text-align: right; font-size: 2em; color: blue;">1</p> <p style="text-align: right; font-size: 2em; color: blue;">2</p>   |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>12.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b><br/>The user should be presented with a banner information message stating “<b>Data committed</b>”.</p>  |  <p>Main Menu: Configuration -&gt; Server Groups [Insert]</p> <p>Info ▼</p> <p>Info</p> <ul style="list-style-type: none"> <li>• Data committed!</li> </ul>  |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| <p>13.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMPVIP:</b><br/>1) Using the mouse, select the MP Server Group associated with the MP being installed.<br/><br/>2) Select the “<b>Edit</b>” dialogue button from the bottom left corner of the screen.</p> |  <p>Main Menu: Configuration -&gt; Server Groups <span style="float: right;">Thu Dec 01 13</span></p> <p>Filter* ▼</p> <table border="1"> <thead> <tr> <th>Server Group Name</th> <th>Level</th> <th>Parent</th> <th>Function</th> <th>Connection Count</th> <th>Servers</th> </tr> </thead> <tbody> <tr style="border: 2px dashed blue;"> <td>MP_grp</td> <td>C</td> <td>SO_grp</td> <td>UDR-MP (multi-active cluster)</td> <td>1</td> <td></td> </tr> <tr> <td>NO_grp</td> <td>A</td> <td>NONE</td> <td>UDR-NO</td> <td>8</td> <td>                     Network Element: X52_NO NE HA Pref: DEFAULT<br/> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> </td> </tr> <tr> <td>SO_grp</td> <td>B</td> <td>NO_grp</td> <td>NONE</td> <td>1</td> <td>                     Network Element: X52_SO NE HA Pref: DEFAULT<br/> <table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> </td> </tr> </tbody> </table> <p>Insert Edit Delete Report</p> <p style="text-align: right; font-size: 2em; color: blue;">2</p> | Server Group Name             | Level            | Parent  | Function | Connection Count | Servers | MP_grp | C | SO_grp         | UDR-MP (multi-active cluster) | 1 |                | NO_grp | A | NONE | UDR-NO | 8 | Network Element: X52_NO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server | Node HA Pref | VIPs | NO-A |  | 10.240.199.154 | NO-B |  | 10.240.199.154 | SO_grp | B | NO_grp | NONE | 1 | Network Element: X52_SO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> | Server | Node HA Pref | VIPs | SO-A |  | 10.240.199.157 | SO-B |  | 10.240.199.157 |
| Server Group Name                          | Level   | Parent  | Function                      | Connection Count | Servers   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| MP_grp                                     | C   | SO_grp  | UDR-MP (multi-active cluster) | 1                |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO_grp                                     | A   | NONE  | UDR-NO                        | 8                | Network Element: X52_NO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>NO-A</td> <td></td> <td>10.240.199.154</td> </tr> <tr> <td>NO-B</td> <td></td> <td>10.240.199.154</td> </tr> </tbody> </table> | Server   | Node HA Pref     | VIPs    | NO-A   |   | 10.240.199.154 | NO-B                          |   | 10.240.199.154 |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Server                                     | Node HA Pref  | VIPs  |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO-A                                       |   | 10.240.199.154  |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| NO-B                                       |   | 10.240.199.154  |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO_grp                                     | B   | NO_grp  | NONE                          | 1                | Network Element: X52_SO NE HA Pref: DEFAULT<br><table border="1"> <thead> <tr> <th>Server</th> <th>Node HA Pref</th> <th>VIPs</th> </tr> </thead> <tbody> <tr> <td>SO-A</td> <td></td> <td>10.240.199.157</td> </tr> <tr> <td>SO-B</td> <td></td> <td>10.240.199.157</td> </tr> </tbody> </table> | Server   | Node HA Pref     | VIPs    | SO-A   |   | 10.240.199.157 | SO-B                          |   | 10.240.199.157 |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| Server                                     | Node HA Pref  | VIPs  |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO-A                                       |   | 10.240.199.157  |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |
| SO-B                                       |   | 10.240.199.157  |                               |                  |   |          |                  |         |        |   |                |                               |   |                |        |   |      |        |   |   |        |              |      |      |  |                |      |  |                |        |   |        |      |   |   |        |              |      |      |  |                |      |  |                |

14.



**Active NOAMPVIP:**  
The user will be presented with the “**Configuration → Server Groups [Edit]**” screen as shown on the right

Normal Capacity Configuration:

| Field                            | Value                           | Description  |
|----------------------------------|---------------------------------|--|
| Server Group Name                | S1_MP_SG *                      | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character alphanumeric and underscore. Must contain at least one alpha and one digit.]                |
| Level                            | C *                             | Select one of the Levels supported by the system   |
| Parent                           | S1_SO_SG *                      | Select an existing Server Group  |
| Function                         | UDR-MP (multi-active cluster) * | Select one of the Functions supported by the system  |
| WAN Replication Connection Count | 1                               | Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.] |

SO\_UDR\_Site1\_VM

| Server          | SG Inclusion                           | Preferred HA Role                        |
|-----------------|--|--|
| UDRPV01-S1-MP-1 | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Preferred Spare |
| UDRPV01-S1-MP-2 | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Preferred Spare |
| UDRPV01-S1-MP-3 | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Preferred Spare |
| UDRPV01-S1-MP-4 | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Preferred Spare |
| UDRPV01-S1-MP-5 | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Preferred Spare |
| UDRPV01-S1-MP-6 | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Preferred Spare |

Low Capacity Configuration:

Main Menu: Configuration -> Server Groups [Edit]

Thu Dec 01 13:48:01 20

Modifying attributes of server group : MP\_grp

Function \* UDR-MP (multi-active cluster) Select one of the Functions supported by the system [A value is required.]

WAN Replication Connection Count 1 Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.]

X52\_SO  Prefer Network Element as spare

| Server | SG Inclusion                           | Preferred HA Role                               |
|--------|--|---|
| MP-2   | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare |
| MP-3   | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare |
| MP-4   | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare |
| MP-1   | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Prefer server as spare |

VIP Assignment

Single Server Configuration:

| Field                            | Value                           | Description  |
|----------------------------------|---------------------------------|--|
| Server Group Name                | MP1_grp *                       | Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character alphanumeric and underscore. Must contain at least one alpha and one digit.]                |
| Level                            | C *                             | Select one of the Levels supported by the system   |
| Parent                           | SO_grp *                        | Select an existing Server Group  |
| Function                         | UDR-MP (multi-active cluster) * | Select one of the Functions supported by the system  |
| WAN Replication Connection Count | 1                               | Specify the number of TCP connections that will be used by replication over any WAN connection associated with this Server Group. [Default = 1. Range = An integer between 1 and 8.] |

SO\_SUN\_05

| Server | SG Inclusion                           | Preferred HA Role                        |
|--------|--|--|
| MP1    | <input type="checkbox"/> Include in SG | <input type="checkbox"/> Preferred Spare |

VIP Assignment

VIP Address  Add

15.

**Active NOAMPVIP:**

Normal Capacity Configuration:

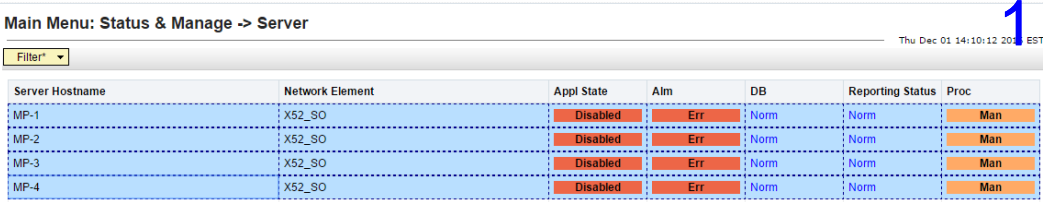
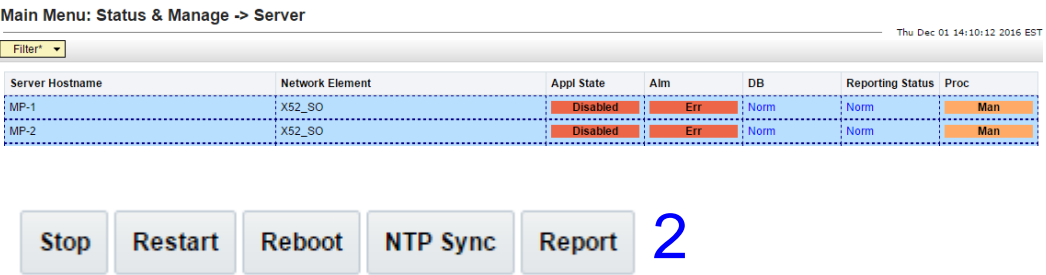
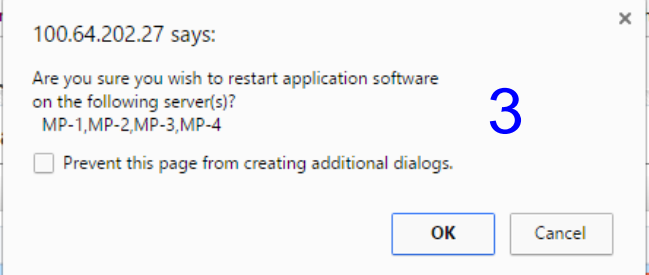
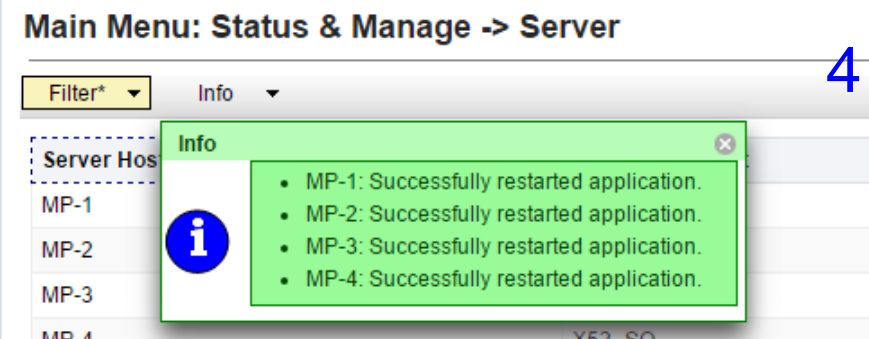
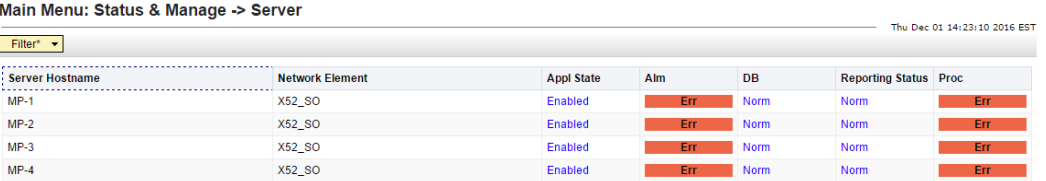
**Procedure 19: Configuring MP Server Groups**

| Step                                       | Procedure   | Result |
|--|---|--------|
| <p><input type="checkbox"/></p>            | <p>Leave the “Prefer Network Element as spare” box unchecked.</p> <p>Put a check mark in the box labeled <b>“Include in SG”</b> for each MP to be included in this Server Group.</p> <p>Note: Single Server Configurations have 1 MP.</p> |        |
| <p>16.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>1) The user should be presented with a banner information message stating <b>“Pre-Validation passed”</b>.</p> <p>2) Select the <b>“Apply”</b> dialogue button.</p>                                     |        |
| <p>17.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>The user should be presented with a banner information message stating <b>“Data committed”</b>.</p>  |        |

Procedure 19: Configuring MP Server Groups

| Step                                       | Procedure  | Result  |                 |                 |                  |      |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
|--|--|---|-----------------|-----------------|------------------|------|----|------------------|------|------|--------|----------|-----|------|------|-----|------|--------|----------|-----|------|------|-----|------|--------|----------|-----|------|------|-----|------|--------|----------|-----|------|------|-----|------|--------|---------|-----|------|------|------|------|--------|---------|-----|------|-----|------|------|--------|---------|------|------|------|------|------|--------|---------|-----|------|------|------|-----------------|-----------------|------------|-----|----|------------------|------|------|--------|----------|-----|------|------|-----|------|--------|----------|-----|------|------|-----|
| <p>18.</p> <p><input type="checkbox"/></p> | <p><b>IMPORTANT:</b><br/>Wait at least <b>5 minutes</b> before proceeding on to the next Step.</p>   | <ul style="list-style-type: none"> <li>Now that the Message Processor(s) have been placed within their respective Server Groups, each must establish DB replication with the Active SOAM server at the NE. It may take several minutes for this process to be completed.</li> <li>Oracle Communications User Data Repository process alarms may be present until Section 8.8 Configure SPR Application on MP (All SOAM Sites) is completed.</li> <li>Allow a minimum of <b>5 minutes</b> before continuing to the next Step.</li> </ul>   |                 |                 |                  |      |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| <p>19.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b><br/>Select...</p> <p><b>Main Menu</b><br/>→ Status &amp; Manage<br/>→ Server</p> <p>...as shown on the right.</p> <p><b>Note:</b> Single Server Configurations have 1 MP.</p>  | <p>Normal Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 14:10:12 2016 ES</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr><td>MP-1</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>MP-2</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>MP-3</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>MP-4</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>NO-A</td><td>X52_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> <tr><td>NO-B</td><td>X52_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Man</td><td>Norm</td></tr> <tr><td>SO-A</td><td>X52_SO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> <tr><td>SO-B</td><td>X52_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> </tbody> </table> <p>Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 14:10:12 2016 ES</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr><td>MP-1</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>MP-2</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> </tbody> </table>              | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | MP-1 | X52_SO | Disabled | Err | Norm | Norm | Man | MP-2 | X52_SO | Disabled | Err | Norm | Norm | Man | MP-3 | X52_SO | Disabled | Err | Norm | Norm | Man | MP-4 | X52_SO | Disabled | Err | Norm | Norm | Man | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm | SO-B | X52_SO | Enabled | Err | Norm | Norm | Norm | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | MP-1 | X52_SO | Disabled | Err | Norm | Norm | Man | MP-2 | X52_SO | Disabled | Err | Norm | Norm | Man |
| Server Hostname                            | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-1                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-2                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-3                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-4                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| NO-A                                       | X52_NO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| NO-B                                       | X52_NO   | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| SO-A                                       | X52_SO   | Enabled   | Warn            | Norm            | Norm             | Norm |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| SO-B                                       | X52_SO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| Server Hostname                            | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-1                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-2                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| <p>20.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b><br/>Verify that the “<b>DB &amp; Reporting Status</b>” status columns show “<b>Norm</b>” for the MPs at this point. The “<b>Proc</b>” column should show “<b>Man</b>”.</p> <p><b>Note:</b> Single Server Configurations have 1 MP.</p> | <p>Normal Capacity Server Configuration</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 14:10:12 2016 ES</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr><td>MP-1</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>MP-2</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>MP-3</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>MP-4</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>NO-A</td><td>X52_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> <tr><td>NO-B</td><td>X52_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Man</td><td>Norm</td></tr> <tr><td>SO-A</td><td>X52_SO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> <tr><td>SO-B</td><td>X52_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr> </tbody> </table> <p>Low Capacity Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 14:10:12 2016 ES</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr><td>MP-1</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> <tr><td>MP-2</td><td>X52_SO</td><td>Disabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Man</td></tr> </tbody> </table> | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | MP-1 | X52_SO | Disabled | Err | Norm | Norm | Man | MP-2 | X52_SO | Disabled | Err | Norm | Norm | Man | MP-3 | X52_SO | Disabled | Err | Norm | Norm | Man | MP-4 | X52_SO | Disabled | Err | Norm | Norm | Man | NO-A | X52_NO | Enabled | Err | Norm | Norm | Norm | NO-B | X52_NO | Enabled | Err | Norm | Man | Norm | SO-A | X52_SO | Enabled | Warn | Norm | Norm | Norm | SO-B | X52_SO | Enabled | Err | Norm | Norm | Norm | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | MP-1 | X52_SO | Disabled | Err | Norm | Norm | Man | MP-2 | X52_SO | Disabled | Err | Norm | Norm | Man |
| Server Hostname                            | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-1                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-2                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-3                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-4                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| NO-A                                       | X52_NO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| NO-B                                       | X52_NO   | Enabled   | Err             | Norm            | Man              | Norm |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| SO-A                                       | X52_SO   | Enabled   | Warn            | Norm            | Norm             | Norm |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| SO-B                                       | X52_SO   | Enabled   | Err             | Norm            | Norm             | Norm |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| Server Hostname                            | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-1                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |
| MP-2                                       | X52_SO   | Disabled  | Err             | Norm            | Norm             | Man  |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |          |     |      |      |     |      |        |         |     |      |      |      |      |        |         |     |      |     |      |      |        |         |      |      |      |      |      |        |         |     |      |      |      |                 |                 |            |     |    |                  |      |      |        |          |     |      |      |     |      |        |          |     |      |      |     |

Procedure 19: Configuring MP Server Groups

| Step                                       | Procedure  | Result  |
|--|--|---|
| <p>21.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>1) Select each “MP” with “Man” status using the mouse and holding the <b>Ctrl</b> key. The line entries should be highlighted</p> <p>2) Select the “Restart” dialogue button from the bottom left corner of the screen.</p> <p>3) Click the “OK” button on the confirmation dialogue box.</p> <p>4) The user should be presented with a confirmation message (in the banner area) stating: “<b>Successfully restarted application</b>”.</p> <p><b>NOTE:</b>The user may need to use the vertical scroll-bar in order to make the “Restart” dialogue button visible.</p> | <p>Normal Capacity Configuration:</p>  <p>Low Capacity Configuration:</p>    |
| <p>22.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Status &amp; Manage</b><br/>→ <b>Server</b></p> <p>...as shown on the right.</p>   |   |

Procedure 19: Configuring MP Server Groups

| Step  | Procedure  | Result  |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
|---|--|---|-----------------|-----------------|------------------|------|----|------------------|------|------|--------|---------|-----|------|------|-----|------|--------|---------|-----|------|------|-----|------|--------|---------|-----|------|------|-----|------|--------|---------|-----|------|------|-----|-----------------|-----------------|------------|-----|----|------------------|------|------|--------|---------|-----|------|------|-----|------|--------|---------|-----|------|------|-----|-----------------|-----------------|------------|-----|----|------------------|------|------|--------|---------|-----|------|------|-----|
| <p>23.</p> <p><input type="checkbox"/></p>      | <p><b>Active NOAMP VIP:</b><br/>Verify that the “<b>Appl State</b>” now shows “<b>Enabled</b>” and that the <b>DB &amp; "Reporting Status"</b> status columns all show “<b>Norm</b>” for the <b>MPs</b>. The “<b>Alm &amp;Proc</b>” columns may show “<b>Err</b>” at this point.</p> | <p>Normal Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 14:23:10 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>MP-1</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Err</td> </tr> <tr> <td>MP-2</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Err</td> </tr> <tr> <td>MP-3</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Err</td> </tr> <tr> <td>MP-4</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Err</td> </tr> </tbody> </table> <p>Low Capacity Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 14:23:10 2016 E</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>MP-1</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Err</td> </tr> <tr> <td>MP-2</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Err</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <p>Main Menu: Status &amp; Manage -&gt; Server</p> <p>Thu Dec 01 14:23:10 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>MP-1</td> <td>X52_SO</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Err</td> </tr> </tbody> </table> | Server Hostname | Network Element | Appl State       | Alm  | DB | Reporting Status | Proc | MP-1 | X52_SO | Enabled | Err | Norm | Norm | Err | MP-2 | X52_SO | Enabled | Err | Norm | Norm | Err | MP-3 | X52_SO | Enabled | Err | Norm | Norm | Err | MP-4 | X52_SO | Enabled | Err | Norm | Norm | Err | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | MP-1 | X52_SO | Enabled | Err | Norm | Norm | Err | MP-2 | X52_SO | Enabled | Err | Norm | Norm | Err | Server Hostname | Network Element | Appl State | Alm | DB | Reporting Status | Proc | MP-1 | X52_SO | Enabled | Err | Norm | Norm | Err |
| Server Hostname                                 | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| MP-1  | X52_SO   | Enabled   | Err             | Norm            | Norm             | Err  |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| MP-2  | X52_SO   | Enabled   | Err             | Norm            | Norm             | Err  |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| MP-3  | X52_SO   | Enabled   | Err             | Norm            | Norm             | Err  |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| MP-4  | X52_SO   | Enabled   | Err             | Norm            | Norm             | Err  |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| Server Hostname                                 | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| MP-1  | X52_SO   | Enabled   | Err             | Norm            | Norm             | Err  |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| MP-2  | X52_SO   | Enabled   | Err             | Norm            | Norm             | Err  |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| Server Hostname                                 | Network Element  | Appl State  | Alm             | DB              | Reporting Status | Proc |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| MP-1  | X52_SO   | Enabled   | Err             | Norm            | Norm             | Err  |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |   |                 |                 |                  |      |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |      |        |         |     |      |      |     |                 |                 |            |     |    |                  |      |      |        |         |     |      |      |     |



## 8.7 Configure MP Signaling Interfaces (All SOAM Sites)



This procedure configures XSI IP Interface and adds the XSI signaling route for all MP Servers.

### Requirements:

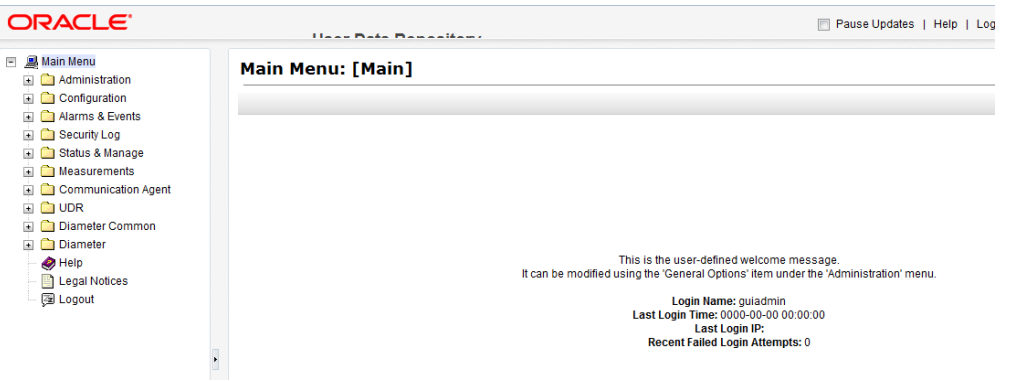
**Procedure 19: Configuring MP Server Groups** has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

### Procedure 20: Configure MP Signaling Interfaces

| Step   | Procedure   | Result  |
|--|---|---|
| <p>1.</p> <input type="checkbox"/>   | <p><b>Active NOAMPVIP</b></p> <p>Launch an approved web browser and connect to the <b>XMI Virtual IP Address(VIP)</b> of the <b>Active NOAMP site</b> using <a href="https://">https://</a></p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: <b>“Continue to this website (not recommended)”</b>.</p> |  <p>There is a problem with this website's security certificate</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p><a href="#">Go to my homepage instead</a></p> <p><a href="#">Continue to this webpage (not recommended)</a></p> |
| <p>2.</p> <input type="checkbox"/> | <p><b>Active NOAMPVIP</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>   |   |

Procedure 20: Configure MP Signaling Interfaces

| Step  | Procedure  | Result   |
|---|--|--|
| <p>3.</p> <p><input type="checkbox"/></p>                             | <p><b>Active NOAMPVIP</b></p> <p>The user should be presented the Main Menu as shown on the right.</p> |                                  |
| <p><b>Note: Repeat the steps below (Steps 4 - 9) for each MP.</b></p> |  |  |
| <p>4.</p> <p><input type="checkbox"/></p>                             | <p>Bring up xsi1 on the servers before executing steps below.</p>                                      | <p><b>NOTE: For any Low Capacity:</b></p> <p>Execute “ifup xsi1” on all the MP Servers:</p> <pre># ifup xsi1</pre> |

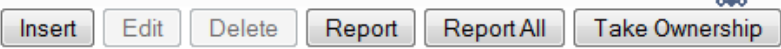
Procedure 20: Configure MP Signaling Interfaces

| Step                                      | Procedure  | Result  |   |                      |                |                        |                      |            |         |            |  |   |            |        |     |          |  |   |          |        |      |          |   |   |            |        |     |          |  |   |          |        |
|---|--|---|---|----------------------|----------------|------------------------|----------------------|------------|---------|------------|--|---|------------|--------|-----|----------|--|---|----------|--------|------|----------|---|---|------------|--------|-----|----------|--|---|----------|--------|
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Select...</p> <p><b>Main Menu</b><br/> → Configuration<br/> → Networking<br/> → Devices</p> <p>...as shown on the right.</p> | <p><b>Main Menu: Configuration -&gt; Networking -&gt; Devices</b></p> <p style="text-align: right;">Thu Jun 30 08:35:00 2016 EDT</p> <p>verona-no-b   verona-so-b   verona-mp3   verona-mp4</p> <table border="1"> <thead> <tr> <th>Device Name</th> <th>Device Type</th> <th>Device Options</th> <th>IP Interface (Network)</th> <th>Configuration Status</th> <th>Is Locked?</th> </tr> </thead> <tbody> <tr> <td>control</td> <td>"Ethernet"</td> <td>MTU = 1500<br/>bootProto = "dhcp"<br/>hwAddr = "02:5F:48:37:79:E9"<br/>onboot = "yes"</td> <td>192.168.1.22 (/24)<br/>fe80::5f:48ff:fe37:79e9 (/64)</td> <td>Discovered</td> <td>Locked</td> </tr> <tr> <td>imi</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>onboot = yes<br/>hwAddr = 02:4D:C1:4E:37:C0</td> <td>169.254.2.30 (IMI)<br/>fe80::4d:c1ff:fe4e:37c0 (/64)</td> <td>Deployed</td> <td>Locked</td> </tr> <tr> <td>xsi1</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = dhcp<br/>hwAddr = 02:59:B2:DE:3F:61<br/>onboot = yes<br/>persistent_dhclient = yes</td> <td>fd0d:deba:d97c:60a:59:b2ff:fe:3f61 (/64)<br/>fe80::59:b2ff:fe3f:61 (/64)</td> <td>Discovered</td> <td>Locked</td> </tr> <tr> <td>xmi</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>onboot = yes<br/>hwAddr = 02:10:9E:FC:21:14</td> <td>10.240.199.186 (XMI)<br/>2606:b400:605:b836:10:9eff:fe:c2114 (/64)<br/>fe80::10:9eff:fe:c2114 (/64)</td> <td>Deployed</td> <td>Locked</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• <b>"Check off"</b> the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> MP-1 (XSI-1)   <input type="checkbox"/> MP-2 (XSI-1)   <input type="checkbox"/> MP-3(XSI-1)   <input type="checkbox"/> MP-4(XSI-1) </p> <p> <input type="checkbox"/> MP-1 (XSI-2)   <input type="checkbox"/> MP-2 (XSI-2)   <input type="checkbox"/> MP-3(XSI-2)   <input type="checkbox"/> MP-4(XSI-2) </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5(XSI-1)   <input type="checkbox"/> MP-6(XSI-1) </p> <p> <input type="checkbox"/> MP-5(XSI-2)   <input type="checkbox"/> MP-6(XSI-2) </p> | Device Name   | Device Type          | Device Options | IP Interface (Network) | Configuration Status | Is Locked? | control | "Ethernet" | MTU = 1500<br>bootProto = "dhcp"<br>hwAddr = "02:5F:48:37:79:E9"<br>onboot = "yes" | 192.168.1.22 (/24)<br>fe80::5f:48ff:fe37:79e9 (/64) | Discovered | Locked | imi | Ethernet | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:4D:C1:4E:37:C0 | 169.254.2.30 (IMI)<br>fe80::4d:c1ff:fe4e:37c0 (/64) | Deployed | Locked | xsi1 | Ethernet | MTU = 1500<br>bootProto = dhcp<br>hwAddr = 02:59:B2:DE:3F:61<br>onboot = yes<br>persistent_dhclient = yes | fd0d:deba:d97c:60a:59:b2ff:fe:3f61 (/64)<br>fe80::59:b2ff:fe3f:61 (/64) | Discovered | Locked | xmi | Ethernet | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:10:9E:FC:21:14 | 10.240.199.186 (XMI)<br>2606:b400:605:b836:10:9eff:fe:c2114 (/64)<br>fe80::10:9eff:fe:c2114 (/64) | Deployed | Locked |
| Device Name                               | Device Type  | Device Options  | IP Interface (Network)  | Configuration Status | Is Locked?     |                        |                      |            |         |            |  |   |            |        |     |          |  |   |          |        |      |          |   |   |            |        |     |          |  |   |          |        |
| control                                   | "Ethernet"   | MTU = 1500<br>bootProto = "dhcp"<br>hwAddr = "02:5F:48:37:79:E9"<br>onboot = "yes"  | 192.168.1.22 (/24)<br>fe80::5f:48ff:fe37:79e9 (/64)   | Discovered           | Locked         |                        |                      |            |         |            |  |   |            |        |     |          |  |   |          |        |      |          |   |   |            |        |     |          |  |   |          |        |
| imi                                       | Ethernet   | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:4D:C1:4E:37:C0  | 169.254.2.30 (IMI)<br>fe80::4d:c1ff:fe4e:37c0 (/64)   | Deployed             | Locked         |                        |                      |            |         |            |  |   |            |        |     |          |  |   |          |        |      |          |   |   |            |        |     |          |  |   |          |        |
| xsi1                                      | Ethernet   | MTU = 1500<br>bootProto = dhcp<br>hwAddr = 02:59:B2:DE:3F:61<br>onboot = yes<br>persistent_dhclient = yes   | fd0d:deba:d97c:60a:59:b2ff:fe:3f61 (/64)<br>fe80::59:b2ff:fe3f:61 (/64)                           | Discovered           | Locked         |                        |                      |            |         |            |  |   |            |        |     |          |  |   |          |        |      |          |   |   |            |        |     |          |  |   |          |        |
| xmi                                       | Ethernet   | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:10:9E:FC:21:14  | 10.240.199.186 (XMI)<br>2606:b400:605:b836:10:9eff:fe:c2114 (/64)<br>fe80::10:9eff:fe:c2114 (/64) | Deployed             | Locked         |                        |                      |            |         |            |  |   |            |        |     |          |  |   |          |        |      |          |   |   |            |        |     |          |  |   |          |        |

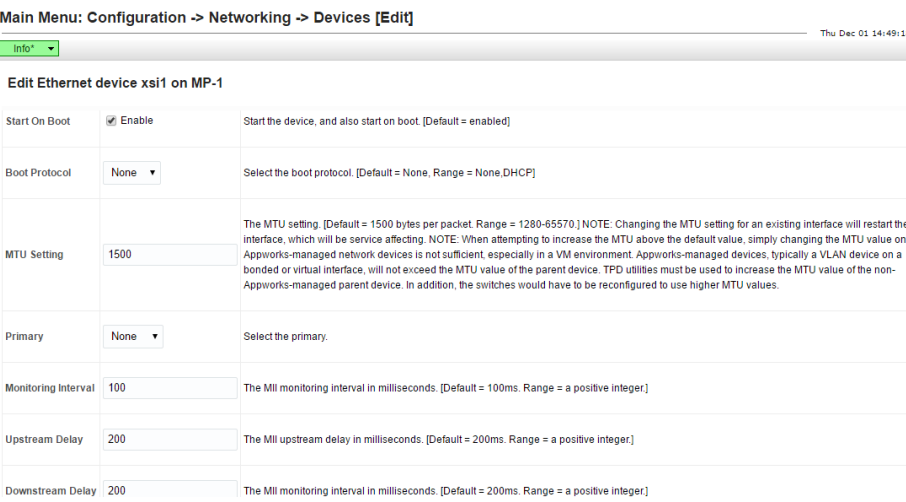
Procedure 20: Configure MP Signaling Interfaces

| Step                                      | Procedure  | Result   |  |                      |                |                        |                      |            |         |          |   |   |            |        |      |          |   |   |            |        |     |          |  |  |          |        |     |          |  |  |          |        |
|---|--|--|--|----------------------|----------------|------------------------|----------------------|------------|---------|----------|---|---|------------|--------|------|----------|---|---|------------|--------|-----|----------|--|--|----------|--------|-----|----------|--|--|----------|--------|
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Select the xsi device for the desired MP</p> | <p>Click on the desired <b>MP</b> tab.</p> <p>Select the <b>xsi1</b> device.</p> <p>Output similar to that shown below may be observed.</p> <p>Main Menu: Configuration -&gt; Networking -&gt; Devices <span style="float: right;">Thu Dec 01 14:48:06 2016</span></p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;"> <p style="text-align: center;">NO-A NO-B SO-A SO-B MP-2 MP-3 MP-4 <b>MP-1</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Device Name</th> <th>Device Type</th> <th>Device Options</th> <th>IP Interface (Network)</th> <th>Configuration Status</th> <th>Is Locked?</th> </tr> </thead> <tbody> <tr> <td>control</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = dhcp<br/>hwAddr = 02:5D:6A:BF:AC:0D<br/>onboot = yes<br/>persistent_dhclient = yes</td> <td>192.168.1.7 (24)<br/>fe80:5d6aff:febfac0d (64)</td> <td>Discovered</td> <td>Locked</td> </tr> <tr style="background-color: #e0f0ff;"> <td>xsi1</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>hwAddr = 02:58:4D:D0:68:38<br/>onboot = no</td> <td>f00d:deba:d97c:60a:58:4dff:fed0:6838 (64)<br/>fe80:584dff:fed0:6838 (64)</td> <td>Discovered</td> <td>Locked</td> </tr> <tr> <td>imi</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>onboot = yes<br/>hwAddr = 02:E8:15:13:43:F0</td> <td>169.254.2.4 (IMI)<br/>fe80:a8:15ff:fe13:43f0 (64)</td> <td>Deployed</td> <td>Locked</td> </tr> <tr> <td>xmi</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>onboot = yes<br/>hwAddr = 02:3C:9C:65:68:84</td> <td>10.240.199.160 (XMI)<br/>2606:b400:605:b836:3c9cff:fe65:6884 (64)<br/>fe80:3c9cff:fe65:6884 (64)</td> <td>Deployed</td> <td>Locked</td> </tr> </tbody> </table> </div> <ul style="list-style-type: none"> <li>• <b>“Check off”</b> the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> MP-1 (XSI-1)            <input type="checkbox"/> MP-2 (XSI-1)            <input type="checkbox"/> MP-3(XSI-1)            <input type="checkbox"/> MP-4(XSI-1)     </p> <p> <input type="checkbox"/> MP-1 (XSI-2)            <input type="checkbox"/> MP-2 (XSI-2)            <input type="checkbox"/> MP-3(XSI-2)            <input type="checkbox"/> MP-4(XSI-2)     </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5(XSI-1)            <input type="checkbox"/> MP-6(XSI-1)     </p> <p> <input type="checkbox"/> MP-5(XSI-2)            <input type="checkbox"/> MP-6(XSI-2)     </p> | Device Name  | Device Type          | Device Options | IP Interface (Network) | Configuration Status | Is Locked? | control | Ethernet | MTU = 1500<br>bootProto = dhcp<br>hwAddr = 02:5D:6A:BF:AC:0D<br>onboot = yes<br>persistent_dhclient = yes | 192.168.1.7 (24)<br>fe80:5d6aff:febfac0d (64) | Discovered | Locked | xsi1 | Ethernet | MTU = 1500<br>bootProto = none<br>hwAddr = 02:58:4D:D0:68:38<br>onboot = no | f00d:deba:d97c:60a:58:4dff:fed0:6838 (64)<br>fe80:584dff:fed0:6838 (64) | Discovered | Locked | imi | Ethernet | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:E8:15:13:43:F0 | 169.254.2.4 (IMI)<br>fe80:a8:15ff:fe13:43f0 (64) | Deployed | Locked | xmi | Ethernet | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:3C:9C:65:68:84 | 10.240.199.160 (XMI)<br>2606:b400:605:b836:3c9cff:fe65:6884 (64)<br>fe80:3c9cff:fe65:6884 (64) | Deployed | Locked |
| Device Name                               | Device Type  | Device Options   | IP Interface (Network)   | Configuration Status | Is Locked?     |                        |                      |            |         |          |   |   |            |        |      |          |   |   |            |        |     |          |  |  |          |        |     |          |  |  |          |        |
| control                                   | Ethernet   | MTU = 1500<br>bootProto = dhcp<br>hwAddr = 02:5D:6A:BF:AC:0D<br>onboot = yes<br>persistent_dhclient = yes  | 192.168.1.7 (24)<br>fe80:5d6aff:febfac0d (64)  | Discovered           | Locked         |                        |                      |            |         |          |   |   |            |        |      |          |   |   |            |        |     |          |  |  |          |        |     |          |  |  |          |        |
| xsi1                                      | Ethernet   | MTU = 1500<br>bootProto = none<br>hwAddr = 02:58:4D:D0:68:38<br>onboot = no  | f00d:deba:d97c:60a:58:4dff:fed0:6838 (64)<br>fe80:584dff:fed0:6838 (64)                        | Discovered           | Locked         |                        |                      |            |         |          |   |   |            |        |      |          |   |   |            |        |     |          |  |  |          |        |     |          |  |  |          |        |
| imi                                       | Ethernet   | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:E8:15:13:43:F0   | 169.254.2.4 (IMI)<br>fe80:a8:15ff:fe13:43f0 (64)   | Deployed             | Locked         |                        |                      |            |         |          |   |   |            |        |      |          |   |   |            |        |     |          |  |  |          |        |     |          |  |  |          |        |
| xmi                                       | Ethernet   | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:3C:9C:65:68:84   | 10.240.199.160 (XMI)<br>2606:b400:605:b836:3c9cff:fe65:6884 (64)<br>fe80:3c9cff:fe65:6884 (64) | Deployed             | Locked         |                        |                      |            |         |          |   |   |            |        |      |          |   |   |            |        |     |          |  |  |          |        |     |          |  |  |          |        |

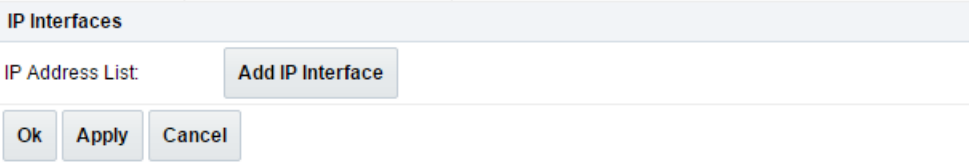
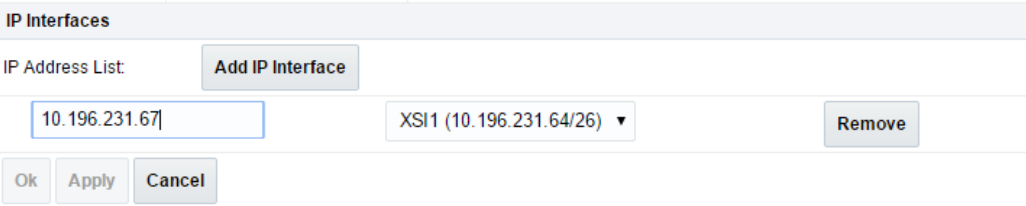
Procedure 20: Configure MP Signaling Interfaces

| Step   | Procedure  | Result  |
|--|--|---|
| <p>7.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>Edit the xsi device for the desired MP</p> | <div style="text-align: center;"> <span style="font-size: 2em; color: blue;">2</span> <span style="font-size: 2em; color: blue; margin-left: 200px;">1</span> </div>  <ol style="list-style-type: none"> <li>1. Click on the <b>Take Ownership</b> button.</li> <li>2. Re-select the <b>xsi1</b> device.</li> <li>3. Click on the <b>Edit</b> button.</li> </ol> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> MP-1 (XSI-1)             <input type="checkbox"/> MP-2 (XSI-1)             <input type="checkbox"/> MP-3(XSI-1)             <input type="checkbox"/> MP-4(XSI-1)         </p> <p> <input type="checkbox"/> MP-1 (XSI-2)             <input type="checkbox"/> MP-2 (XSI-2)             <input type="checkbox"/> MP-3(XSI-2)             <input type="checkbox"/> MP-4(XSI-2)         </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5(XSI-1)             <input type="checkbox"/> MP-6(XSI-1)         </p> <p> <input type="checkbox"/> MP-5(XSI-2)             <input type="checkbox"/> MP-6(XSI-2)         </p> |


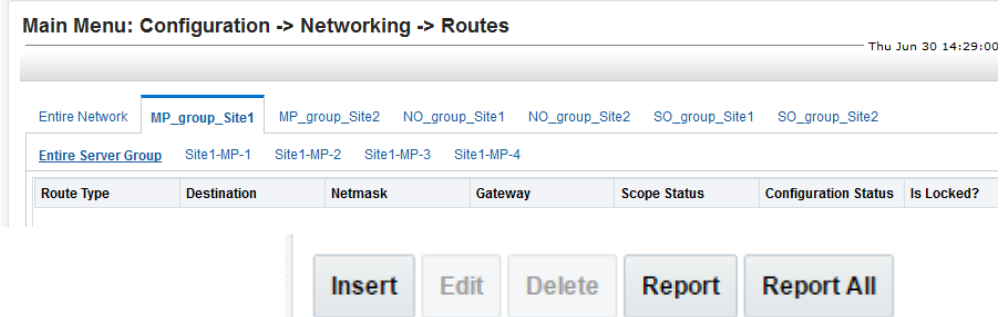
Procedure 20: Configure MP Signaling Interfaces

| Step                                      | Procedure  | Result   |
|---|--|--|
| <p>8.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Enable “Start On Boot”</p> | <p>Check the <b>Start on Boot</b> check box (to make it enabled).<br/>                     Output similar to that shown below may be observed.</p>  <p>Main Menu: Configuration -&gt; Networking -&gt; Devices [Edit] Thu Dec 01 14:49:11</p> <p>Info</p> <p>Edit Ethernet device xsi1 on MP-1</p> <p>Start On Boot <input checked="" type="checkbox"/> Enable Start the device, and also start on boot. [Default = enabled]</p> <p>Boot Protocol <input type="text" value="None"/> Select the boot protocol. [Default = None, Range = None,DHCP]</p> <p>MTU Setting <input type="text" value="1500"/> The MTU setting. [Default = 1500 bytes per packet, Range = 1280-65570.] NOTE: Changing the MTU setting for an existing interface will restart the interface, which will be service affecting. NOTE: When attempting to increase the MTU above the default value, simply changing the MTU value on Appworks-managed network devices is not sufficient, especially in a VM environment. Appworks-managed devices, typically a VLAN device on a bonded or virtual interface, will not exceed the MTU value of the parent device. TPD utilities must be used to increase the MTU value of the non-Appworks-managed parent device. In addition, the switches would have to be reconfigured to use higher MTU values.</p> <p>Primary <input type="text" value="None"/> Select the primary.</p> <p>Monitoring Interval <input type="text" value="100"/> The MII monitoring interval in milliseconds. [Default = 100ms, Range = a positive integer]</p> <p>Upstream Delay <input type="text" value="200"/> The MII upstream delay in milliseconds. [Default = 200ms, Range = a positive integer]</p> <p>Downstream Delay <input type="text" value="200"/> The MII monitoring interval in milliseconds. [Default = 200ms, Range = a positive integer]</p> <ul style="list-style-type: none"> <li>• <b>“Check off”</b> the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> MP-1 (XSI-1) <input type="checkbox"/> MP-2 (XSI-1) <input type="checkbox"/> MP-3(XSI-1) <input type="checkbox"/> MP-4(XSI-1)</p> <p><input type="checkbox"/> MP-1 (XSI-2) <input type="checkbox"/> MP-2 (XSI-2) <input type="checkbox"/> MP-3(XSI-2) <input type="checkbox"/> MP-4(XSI-2)</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5(XSI-1) <input type="checkbox"/> MP-6(XSI-1)</p> <p><input type="checkbox"/> MP-5(XSI-2) <input type="checkbox"/> MP-6(XSI-2)</p> |

**Procedure 20: Configure MP Signaling Interfaces**

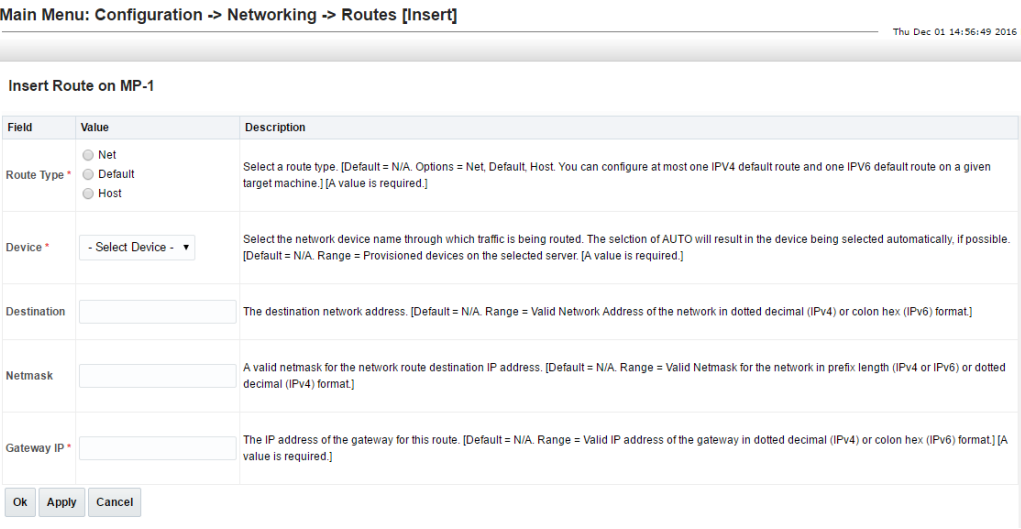
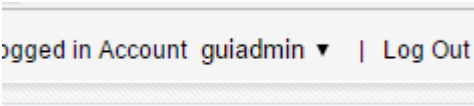
| Step   | Procedure  | Result  |
|--|--|---|
| <p>9.</p> <p><input type="checkbox"/></p>  | <p><b>Active NOAMP VIP</b></p> <p>Add an xsi IP Address.</p> | <p>Click on the <b>Add IP Interfaces</b> button</p>  <p>Set the Network Name to <b>xsi1</b>.<br/>Enter the <b>xsi1 IP Address</b>.<br/>Click on the <b>Ok</b> button.</p>  <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> MP-1 (XSI-1)   <input type="checkbox"/> MP-2 (XSI-1)   <input type="checkbox"/> MP-3(XSI-1)   <input type="checkbox"/> MP-4(XSI-1)<br/> <input type="checkbox"/> MP-1 (XSI-2)   <input type="checkbox"/> MP-2 (XSI-2)   <input type="checkbox"/> MP-3(XSI-2)   <input type="checkbox"/> MP-4(XSI-2)         </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5(XSI-1)   <input type="checkbox"/> MP-6(XSI-1)<br/> <input type="checkbox"/> MP-5(XSI-2)   <input type="checkbox"/> MP-6(XSI-2)         </p> |
| <p>Repeat <b>Steps</b> 4 - 9 for each MP and its Signaling network(s).</p> <p><b>NOTE:</b> If a second <b>XSI</b> network is present (XSI-2), steps 4 - 9 must be run for each MP’s XSI-2 network.</p> <p><b>NOTE:</b> If we configured IPV6 for XSI, then XSI network should be locked by clicking Lock button at GUI path - <b>Main Menu: Configuration -&gt; Networking -&gt; Networks</b></p> <p><b>NOTE:</b> If we configured IPV6 for XMI too, then XMI network should be locked by clicking Lock button at GUI path - <b>Main Menu: Configuration -&gt; Networking -&gt; Networks</b></p> |  |   |

Procedure 20: Configure MP Signaling Interfaces

| Step                                | Procedure   | Result  |
|-------------------------------------|---|---|
| <p>10.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>Select...</p> <p><b>Main Menu</b><br/> → Configuration<br/> → Networking<br/> → Routes</p> <p>...as shown on the right.</p> |   |
| <p>11.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>Insert a new route for the MP.</p>  | <p>Click on the desired <b>Server Group</b> tab on the top line.<br/> Then click on the <b>Entire Server Group</b> tab on the line below <b>Server Group</b> line.<br/> Output similar to that shown below may be observed.</p>  <p>Click on the <b>Insert</b> button</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Network</b>.</li> </ul> <p><input type="checkbox"/> XSI-1      <input type="checkbox"/> XSI-2</p> |



Procedure 20: Configure MP Signaling Interfaces

| Step  | Procedure  | Result  |
|---|--|---|
| <p>12.</p> <input type="checkbox"/>               | <p><b>Active NOAMP VIP</b></p> <p>Add xsi signaling route to MP</p>  | <p>Output similar to that shown below may be observed.</p>  <p>Set <b>Route Type</b> to desired value<br/> Set <b>Device</b> to <b>xsi1</b></p> <p>Enter <b>Destination</b>: This is the address of the Diameter Sh clients that will connect to Oracle Communications User Data Repository on the signaling network,<br/> Enter <b>Netmask</b> for the Diameter Sh client network.<br/> Enter <b>Gateway IP</b>: This is the gateway for Oracle Communications User Data Repository signaling network as configured in Procedure 3, Step 10.<br/> Click <b>Apply</b> button</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Network</b>.</li> </ul> <p><input type="checkbox"/> XSI-1      <input type="checkbox"/> XSI-2</p> |
| <p>Repeat <b>Step 11-12</b> for each Network.</p> |  |   |
| <p>13.</p> <input type="checkbox"/>               | <p>Repeat <b>Step 11-12</b> for MP ⇔ ComAgent communication intended to be configured on XSI1 as described in 8.11</p> <p>Configure Services on Signaling Network. This step is only needed for geo-redundant systems.</p> <p><b>Note:</b> Destination would be DR Site XSI1 Address if configuring Primary Site and vice-versa.<br/> <b>Note:</b> Netmask would be DR Site XSI1 Address if configuring Primary Site and vice-versa.<br/> <b>Note:</b> Gateway IP would be Primary Site XSI1 Gateway if configuring Primary Site and vice-versa.</p> |   |
| <p>14.</p> <input type="checkbox"/>               | <p><b>Active NOAMP VIP:</b></p> <p>Click the “<b>Logout</b>” link on the server GUI.</p>   |    |

**Procedure 20: Configure MP Signaling Interfaces**

| Step                                     | Procedure | Result |
|--|-----------|--------|
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |           |        |

**8.8 Configure SPR Application on MP (All SOAM Sites)**

This procedure configures the SPR application for MP Servers on each SOAM site.



**Requirements:**

**Procedure 20:**

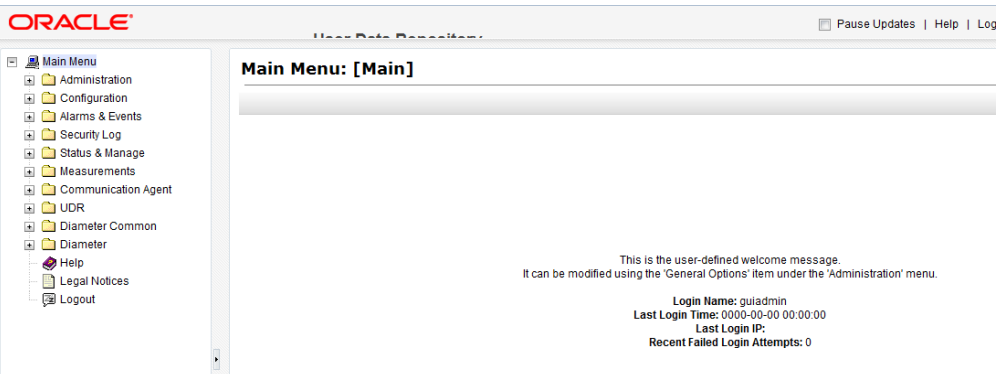
Configure MP Signaling Interfaces (All SOAM Sites) has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**Procedure 21: Configure SPR Application on MP**

| Step   | Procedure  | Result   |
|--|--|--|
| <p>1.</p> <input type="checkbox"/>   | <p><b>Active SOAM VIP</b></p> <p>Launch an approved web browser and connect to the <b>XMI Virtual IP Address(VIP)</b> of the <b>Active SOAM site</b> using <a href="https://">https://</a></p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: <b>“Continue to this website (not recommended)”</b>.</p> |  <p><b>There is a problem with this website's security certificate</b></p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p><a href="#">Go to my homepage instead</a></p> <p><a href="#">Continue to this webpage (not recommended)</a></p> |
| <p>2.</p> <input type="checkbox"/> | <p><b>Active SOAM VIP</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>  |    |

Procedure 21: Configure SPR Application on MP

| Step                                      | Procedure  | Result   |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
|---|--|--|--------|------------|---------------|------------|----------------|---|------------|----------------|---|------------|----------------|---|------------|----------------|---|--------|------------|---------------|------------|----------------|---|------------|----------------|---|--------|------------|---------------|------|----------------|---|
| <p>3.</p> <p><input type="checkbox"/></p> | <p><b>Active SOAM VIP</b></p> <p>The user should be presented the Main Menu as shown on the right.</p>   |    |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>Active SOAM VIP</b></p> <p>Select...</p> <p><b>Main Menu</b></p> <p>→ <b>Diameter Common</b></p> <p>→ <b>MPs</b></p> <p>→ <b>Profile Assignments</b></p> <p>Select profile as <b>UDRVM:Database</b> and click on <b>Assign</b> (for each MP)</p> | <p>Normal Capacity Configuration:</p> <p><b>Main Menu: Diameter Common -&gt; MPs -&gt; Profile Assignments</b></p> <p style="text-align: right;">Thu Jun 30 14:36:3</p> <table border="1"> <thead> <tr> <th>UDR-MP</th> <th>MP Profile</th> <th>current value</th> </tr> </thead> <tbody> <tr> <td>Site2-MP-1</td> <td>UDRVM:Database</td> <td>The current MP Profile for Site2-MP-1 is UDRVM:Database.<br/>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]</td> </tr> <tr> <td>Site2-MP-2</td> <td>UDRVM:Database</td> <td>The current MP Profile for Site2-MP-2 is UDRVM:Database.<br/>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]</td> </tr> <tr> <td>Site2-MP-3</td> <td>UDRVM:Database</td> <td>The current MP Profile for Site2-MP-3 is UDRVM:Database.<br/>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]</td> </tr> <tr> <td>Site2-MP-4</td> <td>UDRVM:Database</td> <td>The current MP Profile for Site2-MP-4 is UDRVM:Database.<br/>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]</td> </tr> </tbody> </table> <p>Low Capacity Configuration:</p> <p><b>Main Menu: Diameter Common -&gt; MPs -&gt; Profile Assignments</b></p> <table border="1"> <thead> <tr> <th>UDR-MP</th> <th>MP Profile</th> <th>current value</th> </tr> </thead> <tbody> <tr> <td>verona-mp3</td> <td>UDRVM:Database</td> <td>The current MP Profile for verona-mp3 is UDRVM:Database.<br/>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]</td> </tr> <tr> <td>verona-mp4</td> <td>UDRVM:Database</td> <td>The current MP Profile for verona-mp4 is UDRVM:Database.<br/>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]</td> </tr> </tbody> </table> <p>Assign Cancel</p> <p>Single Server Configuration:</p> <table border="1"> <thead> <tr> <th>UDR-MP</th> <th>MP Profile</th> <th>current value</th> </tr> </thead> <tbody> <tr> <td>MP-1</td> <td>UDRVM:Database</td> <td>This MP has not been assigned an MP Profile. [A value is required.]</td> </tr> </tbody> </table> | UDR-MP | MP Profile | current value | Site2-MP-1 | UDRVM:Database | The current MP Profile for Site2-MP-1 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.] | Site2-MP-2 | UDRVM:Database | The current MP Profile for Site2-MP-2 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.] | Site2-MP-3 | UDRVM:Database | The current MP Profile for Site2-MP-3 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.] | Site2-MP-4 | UDRVM:Database | The current MP Profile for Site2-MP-4 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.] | UDR-MP | MP Profile | current value | verona-mp3 | UDRVM:Database | The current MP Profile for verona-mp3 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.] | verona-mp4 | UDRVM:Database | The current MP Profile for verona-mp4 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.] | UDR-MP | MP Profile | current value | MP-1 | UDRVM:Database | This MP has not been assigned an MP Profile. [A value is required.] |
| UDR-MP                                    | MP Profile   | current value  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| Site2-MP-1                                | UDRVM:Database   | The current MP Profile for Site2-MP-1 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| Site2-MP-2                                | UDRVM:Database   | The current MP Profile for Site2-MP-2 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| Site2-MP-3                                | UDRVM:Database   | The current MP Profile for Site2-MP-3 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| Site2-MP-4                                | UDRVM:Database   | The current MP Profile for Site2-MP-4 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| UDR-MP                                    | MP Profile   | current value  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| verona-mp3                                | UDRVM:Database   | The current MP Profile for verona-mp3 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| verona-mp4                                | UDRVM:Database   | The current MP Profile for verona-mp4 is UDRVM:Database.<br>Virtualized UDR-MP on OCUDR Rack-Mount Server Series 30 running Database application [A value is required.]  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| UDR-MP                                    | MP Profile   | current value  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |
| MP-1                                      | UDRVM:Database   | This MP has not been assigned an MP Profile. [A value is required.]  |        |            |               |            |                |   |            |                |   |            |                |   |            |                |   |        |            |               |            |                |   |            |                |   |        |            |               |      |                |   |

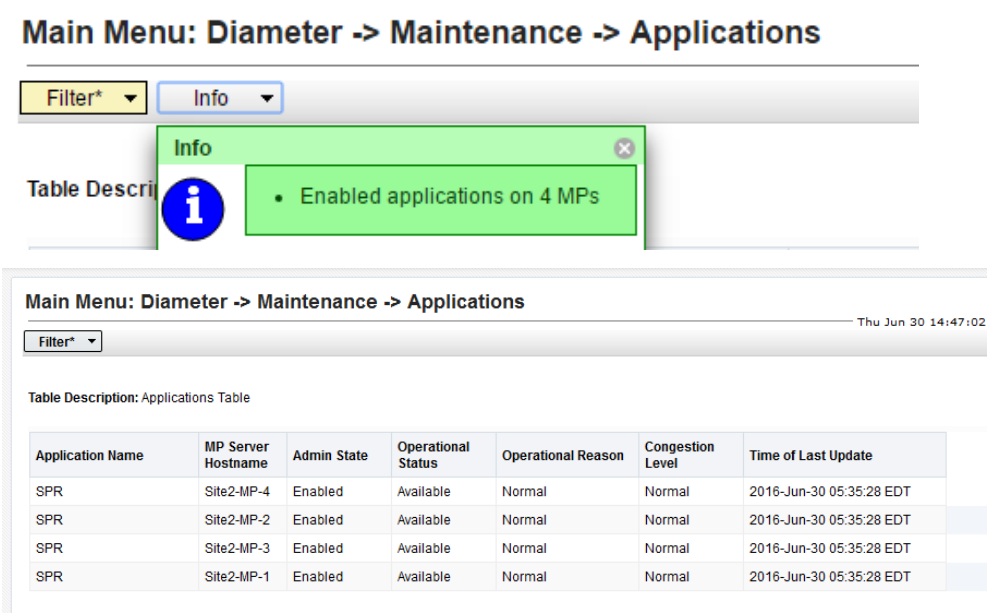
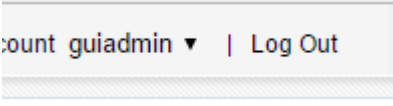
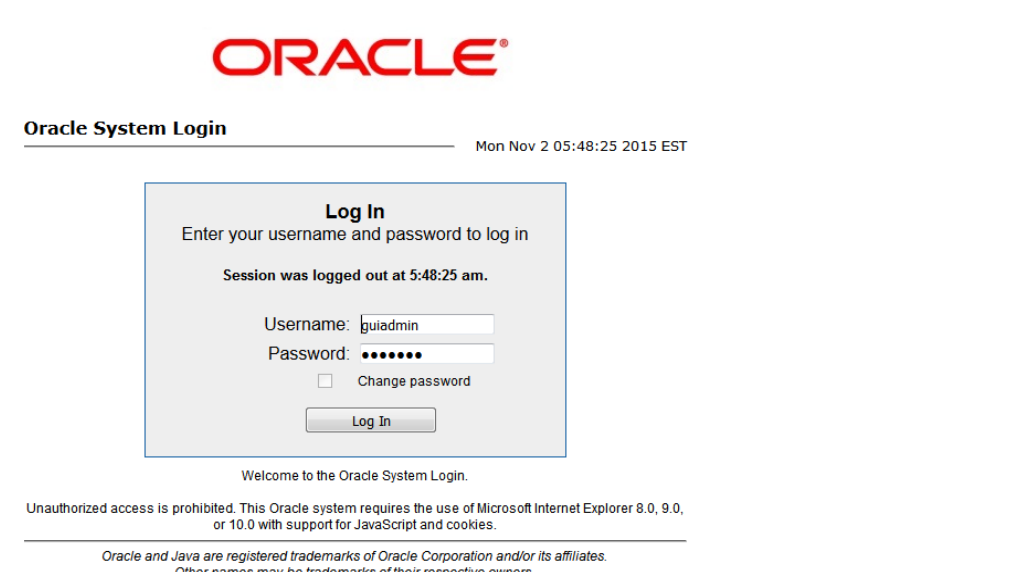
Procedure 21: Configure SPR Application on MP

| Step                                      | Procedure   | Result  |                    |                    |                  |                     |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |
|---|---|---|--------------------|--------------------|------------------|---------------------|--------------------|------------------|---------------------|-----|------|----------|-----|-----|-----|-----|-----|------|----------|-----|-----|-----|-----|-----|------|----------|-----|-----|-----|-----|-----|------|----------|-----|-----|-----|-----|
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>Active SOAM VIP</b></p> <p>Select...</p> <p><b>Main Menu</b></p> <p>→ <i>Diameter</i></p> <p>→ <i>Maintenance</i></p> <p>→ <i>Applications</i></p> <p>...as shown on the right.</p> | <p><b>Main Menu: Diameter -&gt; Maintenance -&gt; Applications</b></p> <p>Filter* ▼</p> <p>Table Description: Applications Table</p> <table border="1"> <thead> <tr> <th>Application Name</th> <th>MP Server Hostname</th> <th>Admin State</th> <th>Operational Status</th> <th>Operational Reason</th> <th>Congestion Level</th> <th>Time of Last Update</th> </tr> </thead> <tbody> <tr> <td>SPR</td> <td>MP-1</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> <tr> <td>SPR</td> <td>MP-4</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> <tr> <td>SPR</td> <td>MP-3</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> <tr> <td>SPR</td> <td>MP-2</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> </tbody> </table> | Application Name   | MP Server Hostname | Admin State      | Operational Status  | Operational Reason | Congestion Level | Time of Last Update | SPR | MP-1 | Disabled | Unk | Unk | Unk | Unk | SPR | MP-4 | Disabled | Unk | Unk | Unk | Unk | SPR | MP-3 | Disabled | Unk | Unk | Unk | Unk | SPR | MP-2 | Disabled | Unk | Unk | Unk | Unk |
| Application Name                          | MP Server Hostname  | Admin State   | Operational Status | Operational Reason | Congestion Level | Time of Last Update |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |
| SPR                                       | MP-1  | Disabled  | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |
| SPR                                       | MP-4  | Disabled  | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |
| SPR                                       | MP-3  | Disabled  | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |
| SPR                                       | MP-2  | Disabled  | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |


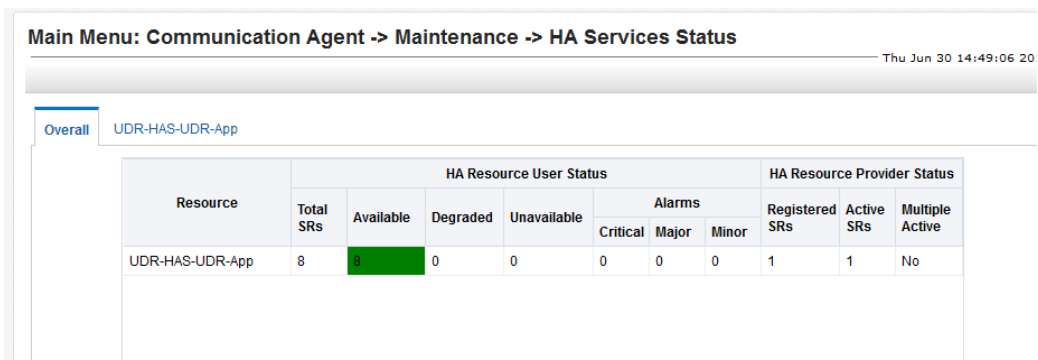

Procedure 21: Configure SPR Application on MP

| Step   | Procedure                     | Result   |                    |                    |                  |                     |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
|--|-------------------------------|--|--------------------|--------------------|------------------|---------------------|--------------------|------------------|---------------------|-----|------|----------|-----|-----|-----|-----|-----|------|----------|-----|-----|-----|-----|-----|------|----------|-----|-----|-----|-----|-----|------|----------|-----|-----|-----|-----|------------------|--------------------|-------------|--------------------|--------------------|------------------|---------------------|-----|------|----------|-----|-----|-----|-----|-----|------|----------|-----|-----|-----|-----|------------------|--------------------|-------------|--------------------|--------------------|------------------|---------------------|-----|------|----------|-----|-----|-----|-----|
| <p>6.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 5px;"></div> <p>1) Select the “SPR” Application on each “MP” using the mouse and holding the <b>Ctrl</b> key. The line entries should be highlighted</p> <p>2) Click on Enable Button</p> | <p><b>Active SOAM VIP</b></p> | <p>Normal Capacity Configuration:</p> <p><b>Main Menu: Diameter -&gt; Maintenance -&gt; Applications</b></p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>Filter* ▾</p> </div> <p>Table Description: Applications Table</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Application Name</th> <th>MP Server Hostname</th> <th>Admin State</th> <th>Operational Status</th> <th>Operational Reason</th> <th>Congestion Level</th> <th>Time of Last Update</th> </tr> </thead> <tbody> <tr> <td>SPR</td> <td>MP-1</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> <tr> <td>SPR</td> <td>MP-4</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> <tr> <td>SPR</td> <td>MP-3</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> <tr> <td>SPR</td> <td>MP-2</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> </tbody> </table> <p>Low Capacity Configuration:</p> <p><b>Main Menu: Diameter -&gt; Maintenance -&gt; Applications</b></p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>Filter* ▾</p> </div> <p>Table Description: Applications Table</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Application Name</th> <th>MP Server Hostname</th> <th>Admin State</th> <th>Operational Status</th> <th>Operational Reason</th> <th>Congestion Level</th> <th>Time of Last Update</th> </tr> </thead> <tbody> <tr> <td>SPR</td> <td>MP-1</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> <tr> <td>SPR</td> <td>MP-4</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> </tbody> </table> <p>Single Server Configuration:</p> <p><b>Main Menu: Diameter -&gt; Maintenance -&gt; Applications</b></p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>Filter* ▾</p> </div> <p>Table Description: Applications Table</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Application Name</th> <th>MP Server Hostname</th> <th>Admin State</th> <th>Operational Status</th> <th>Operational Reason</th> <th>Congestion Level</th> <th>Time of Last Update</th> </tr> </thead> <tbody> <tr> <td>SPR</td> <td>MP-1</td> <td>Disabled</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> <td>Unk</td> </tr> </tbody> </table> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid #ccc; padding: 5px 15px;">Enable</div> <div style="border: 1px solid #ccc; padding: 5px 15px;">Disable</div> </div> <div style="text-align: center; margin-top: 20px; font-size: 2em; color: blue;">2</div> | Application Name   | MP Server Hostname | Admin State      | Operational Status  | Operational Reason | Congestion Level | Time of Last Update | SPR | MP-1 | Disabled | Unk | Unk | Unk | Unk | SPR | MP-4 | Disabled | Unk | Unk | Unk | Unk | SPR | MP-3 | Disabled | Unk | Unk | Unk | Unk | SPR | MP-2 | Disabled | Unk | Unk | Unk | Unk | Application Name | MP Server Hostname | Admin State | Operational Status | Operational Reason | Congestion Level | Time of Last Update | SPR | MP-1 | Disabled | Unk | Unk | Unk | Unk | SPR | MP-4 | Disabled | Unk | Unk | Unk | Unk | Application Name | MP Server Hostname | Admin State | Operational Status | Operational Reason | Congestion Level | Time of Last Update | SPR | MP-1 | Disabled | Unk | Unk | Unk | Unk |
| Application Name   | MP Server Hostname            | Admin State  | Operational Status | Operational Reason | Congestion Level | Time of Last Update |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| SPR  | MP-1                          | Disabled   | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| SPR  | MP-4                          | Disabled   | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| SPR  | MP-3                          | Disabled   | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| SPR  | MP-2                          | Disabled   | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| Application Name   | MP Server Hostname            | Admin State  | Operational Status | Operational Reason | Congestion Level | Time of Last Update |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| SPR  | MP-1                          | Disabled   | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| SPR  | MP-4                          | Disabled   | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| Application Name   | MP Server Hostname            | Admin State  | Operational Status | Operational Reason | Congestion Level | Time of Last Update |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |
| SPR  | MP-1                          | Disabled   | Unk                | Unk                | Unk              | Unk                 |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |     |      |          |     |     |     |     |                  |                    |             |                    |                    |                  |                     |     |      |          |     |     |     |     |

Procedure 21: Configure SPR Application on MP

| Step                                      | Procedure  | Result  |                    |                    |                  |                          |                    |                  |                     |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |
|---|--|---|--------------------|--------------------|------------------|--------------------------|--------------------|------------------|---------------------|-----|------------|---------|-----------|--------|--------|--------------------------|-----|------------|---------|-----------|--------|--------|--------------------------|-----|------------|---------|-----------|--------|--------|--------------------------|-----|------------|---------|-----------|--------|--------|--------------------------|
| <p>7.</p> <p><input type="checkbox"/></p> | <p><b>Active SOAM VIP</b></p> <p>The user should be presented with a banner information message stating <b>“Enabled application”</b>.</p>                            |  <p><b>Main Menu: Diameter -&gt; Maintenance -&gt; Applications</b></p> <p>Filter* Info</p> <p>Table Description: Applications Table</p> <table border="1"> <thead> <tr> <th>Application Name</th> <th>MP Server Hostname</th> <th>Admin State</th> <th>Operational Status</th> <th>Operational Reason</th> <th>Congestion Level</th> <th>Time of Last Update</th> </tr> </thead> <tbody> <tr> <td>SPR</td> <td>Site2-MP-4</td> <td>Enabled</td> <td>Available</td> <td>Normal</td> <td>Normal</td> <td>2016-Jun-30 05:35:28 EDT</td> </tr> <tr> <td>SPR</td> <td>Site2-MP-2</td> <td>Enabled</td> <td>Available</td> <td>Normal</td> <td>Normal</td> <td>2016-Jun-30 05:35:28 EDT</td> </tr> <tr> <td>SPR</td> <td>Site2-MP-3</td> <td>Enabled</td> <td>Available</td> <td>Normal</td> <td>Normal</td> <td>2016-Jun-30 05:35:28 EDT</td> </tr> <tr> <td>SPR</td> <td>Site2-MP-1</td> <td>Enabled</td> <td>Available</td> <td>Normal</td> <td>Normal</td> <td>2016-Jun-30 05:35:28 EDT</td> </tr> </tbody> </table> | Application Name   | MP Server Hostname | Admin State      | Operational Status       | Operational Reason | Congestion Level | Time of Last Update | SPR | Site2-MP-4 | Enabled | Available | Normal | Normal | 2016-Jun-30 05:35:28 EDT | SPR | Site2-MP-2 | Enabled | Available | Normal | Normal | 2016-Jun-30 05:35:28 EDT | SPR | Site2-MP-3 | Enabled | Available | Normal | Normal | 2016-Jun-30 05:35:28 EDT | SPR | Site2-MP-1 | Enabled | Available | Normal | Normal | 2016-Jun-30 05:35:28 EDT |
| Application Name                          | MP Server Hostname   | Admin State   | Operational Status | Operational Reason | Congestion Level | Time of Last Update      |                    |                  |                     |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |
| SPR                                       | Site2-MP-4   | Enabled   | Available          | Normal             | Normal           | 2016-Jun-30 05:35:28 EDT |                    |                  |                     |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |
| SPR                                       | Site2-MP-2   | Enabled   | Available          | Normal             | Normal           | 2016-Jun-30 05:35:28 EDT |                    |                  |                     |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |
| SPR                                       | Site2-MP-3   | Enabled   | Available          | Normal             | Normal           | 2016-Jun-30 05:35:28 EDT |                    |                  |                     |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |
| SPR                                       | Site2-MP-1   | Enabled   | Available          | Normal             | Normal           | 2016-Jun-30 05:35:28 EDT |                    |                  |                     |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |
| <p>8.</p> <p><input type="checkbox"/></p> | <p><b>Active SOAM VIP</b></p> <p>Click the <b>“Logout”</b> link on the server GUI.</p>   |  <p>count_guiadmin   Log Out</p>  |                    |                    |                  |                          |                    |                  |                     |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |
| <p>9.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p> |  <p><b>ORACLE®</b></p> <p>Oracle System Login Mon Nov 2 05:48:25 2015 EST</p> <p><b>Log In</b></p> <p>Enter your username and password to log in</p> <p>Session was logged out at 5:48:25 am.</p> <p>Username: <input type="text" value="guiadmin"/></p> <p>Password: <input type="password" value="••••••"/></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>  |                    |                    |                  |                          |                    |                  |                     |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |     |            |         |           |        |        |                          |

Procedure 21: Configure SPR Application on MP

| Step  | Procedure  | Result   |          |           |                         |                             |        |   |                             |                |            |                 |          |             |        |  |  |                |            |                 |          |       |       |                 |   |   |   |   |   |   |   |   |   |    |
|---|--|--|----------|-----------|-------------------------|-----------------------------|--------|---|-----------------------------|----------------|------------|-----------------|----------|-------------|--------|--|--|----------------|------------|-----------------|----------|-------|-------|-----------------|---|---|---|---|---|---|---|---|---|----|
| <p>10.</p> <p><input type="checkbox"/></p>      | <p><b>Active NOAMP VIP</b></p> <p>The user should be presented the Oracle Communications User Data Repository Main Menu as shown on the right.</p>   |    |          |           |                         |                             |        |   |                             |                |            |                 |          |             |        |  |  |                |            |                 |          |       |       |                 |   |   |   |   |   |   |   |   |   |    |
| <p>11.</p> <p><input type="checkbox"/></p>      | <p><b>Active NOAMP VIP</b></p> <p>Verify service appears on NOAMP GUI page</p> <p>Select...</p> <p><b>Main Menu</b><br/> → Communication Agent<br/> → Maintenance<br/> → HA Services Status</p> <p>...as shown on the right.</p> |  <table border="1"> <thead> <tr> <th rowspan="3">Resource</th> <th rowspan="3">Total SRs</th> <th colspan="4">HA Resource User Status</th> <th colspan="3">HA Resource Provider Status</th> </tr> <tr> <th rowspan="2">Available</th> <th rowspan="2">Degraded</th> <th rowspan="2">Unavailable</th> <th colspan="3">Alarms</th> <th rowspan="2">Registered SRs</th> <th rowspan="2">Active SRs</th> <th rowspan="2">Multiple Active</th> </tr> <tr> <th>Critical</th> <th>Major</th> <th>Minor</th> </tr> </thead> <tbody> <tr> <td>UDR-HAS-UDR-App</td> <td>8</td> <td>8</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> <td>No</td> </tr> </tbody> </table> | Resource | Total SRs | HA Resource User Status |                             |        |   | HA Resource Provider Status |                |            | Available       | Degraded | Unavailable | Alarms |  |  | Registered SRs | Active SRs | Multiple Active | Critical | Major | Minor | UDR-HAS-UDR-App | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | No |
| Resource  | Total SRs  | HA Resource User Status  |          |           |                         | HA Resource Provider Status |        |   |                             |                |            |                 |          |             |        |  |  |                |            |                 |          |       |       |                 |   |   |   |   |   |   |   |   |   |    |
|   |  | Available  |          |           | Degraded                | Unavailable                 | Alarms |   |                             | Registered SRs | Active SRs | Multiple Active |          |             |        |  |  |                |            |                 |          |       |       |                 |   |   |   |   |   |   |   |   |   |    |
|   |  |  | Critical | Major     |                         |                             | Minor  |   |                             |                |            |                 |          |             |        |  |  |                |            |                 |          |       |       |                 |   |   |   |   |   |   |   |   |   |    |
| UDR-HAS-UDR-App                                 | 8  | 8  | 0        | 0         | 0                       | 0                           | 0      | 1 | 1                           | No             |            |                 |          |             |        |  |  |                |            |                 |          |       |       |                 |   |   |   |   |   |   |   |   |   |    |
| <p>12.</p> <p><input type="checkbox"/></p>      | <p><b>Active NOAMP VIP</b></p> <p>Click the “Logout” link on the server GUI.</p>   |   |          |           |                         |                             |        |   |                             |                |            |                 |          |             |        |  |  |                |            |                 |          |       |       |                 |   |   |   |   |   |   |   |   |   |    |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |          |           |                         |                             |        |   |                             |                |            |                 |          |             |        |  |  |                |            |                 |          |       |       |                 |   |   |   |   |   |   |   |   |   |    |



## 8.9 Configure NOAMP Signaling Interfaces (All NOAM Sites)

This procedure configures XSI IP Interface and adds the XSI signaling route for all NOAMP Servers. **ComAgent Service is required** to be configured on XSI Network. Normal Capacity C-Class Configurations use this procedure.

**Requirements:**

**Procedure 17: OAM Pairing for the Primary NOAMP Servers** has been completed.

**Procedure 18: Pairing the OAM Servers for SOAM or DR NOAMP sites**


**Procedure 19: Configuring MP Server Groups** has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.



### Procedure 22: Configure NOAMP Signaling Interfaces

| Step                           | Procedure   | Result  |
|--------------------------------|---|---|
| 1.<br><input type="checkbox"/> | Create bond interface for signaling network on NOAMP for <b>Topology 4 and Topology 4A ONLY</b>                                 | <b><u>For Topology 4 and Topology 4A ONLY:</u></b><br>Deployments with two pairs of enclosure switches ( <b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will host XSI on <b>bond1</b> :<br><br><b>Execute Step 2 - 7 on all NOAMP servers</b>   |
| 2.<br><input type="checkbox"/> | <b>NOAMP Server :</b><br><b>1)</b> Access the command prompt.<br><br><b>2)</b> Log into the NOAMP server as the "admusr" user.. | login as: <code>admusr</code><br>admusr@10.250.xx.yy's password:<admusr_password><br>Last login: Mon Jul 30 10:33:19 2012 from 10.25.80.199<br>[admusr@pc9040833-no-a ~]#   |
| 3.<br><input type="checkbox"/> | <b>NOAMP Server:</b><br><br>Output similar to that shown on the right will appear as the server access the command prompt.      | <b>*** TRUNCATED OUTPUT ***</b><br>VPATH=/opt/TKLCcomcol/runcm7.2.0:/opt/TKLCcomcol/cm7.2.0<br>PRODPATH=<br>RELEASE=7.2.0<br>RUNID=00<br>VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC/awpcom<br>mon:/usr/TKLC/awptransportmgr:/usr/TKLC/comagent-<br>gui:/usr/TKLC/comagent-<br>gui:/usr/TKLC/comagent:/usr/TKLC/awpss7:/usr/TKLC/ccl:/usr/TKLC/dpi:/us<br>r/TKLC/capm/prod/plugins<br>PRODPATH=/opt/comcol/prod<br>RUNID=00<br>[admusr@NO-A ~]\$ |
| 4.<br><input type="checkbox"/> | <b>NOAMP Server :</b><br><br>Switch to "root" user.   | [admusr@ pc9040833-no-a ~]\$ <code>su -</code><br>password: <root_password>   |

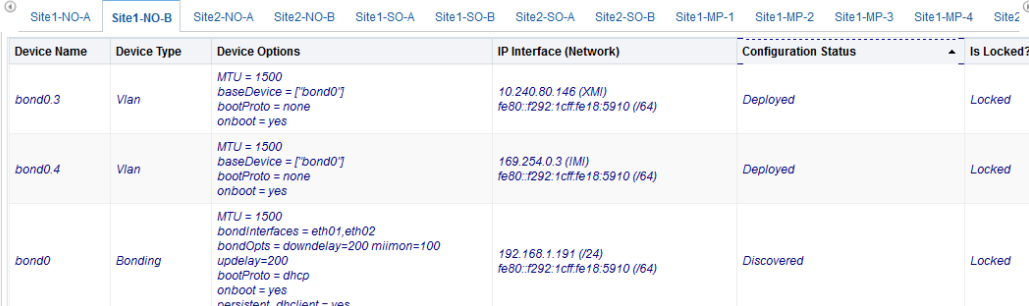
Procedure 22: Configure NOAMP Signaling Interfaces

| Step                               | Procedure   | Result  |
|------------------------------------|---|---|
| <p>5.</p> <input type="checkbox"/> | <p><b>NOAMP Server:</b></p> <p>Add bond for signaling</p> <p>[Topology 4 only]</p>  | <p><b>Topology 4 and Topology 4A ONLY:</b></p> <p>Deployments with two pairs of enclosure switches (<b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will host XSI on <b>bond1</b>:</p> <pre>#netAdm add --device=bond1 --onboot=yes --bootproto=none</pre> <p>Interface bond1 added</p>  |
| <p>6.</p> <input type="checkbox"/> | <p><b>NOAMP Server:</b></p> <p>Bond interfaces eth11 and eth12 for signaling</p> <p>[Topology 4 only]</p>   | <p><b>Topology 4 and Topology 4A ONLY:</b></p> <p>Deployments with two pairs of enclosure switches (<b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will host XSI on <b>bond1</b>:</p> <pre>#netAdm set --device=bond1 --bondInterfaces=eth11,eth12</pre> <p>Interface bond1 updated</p>   |
| <p>7.</p> <input type="checkbox"/> | <p><b>NOAMP Server:</b></p> <p>Bring up bond1 on the server</p> <p><b>Note:</b> Output similar to that shown on the right may be observed</p>                               | <p>Restart the network interfaces:</p> <pre>#ifup bond1</pre> <p>RTNETLINK answers: File exists</p>   |
| <p>8.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>Launch an approved web browser and connect to the <b>XMI Virtual IP Address(VIP)</b> of the <b>Active NOAMP site</b> using “https://”</p> |  <p>There is a problem with this website's security certificate</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p><a href="#">Go to my homepage instead</a></p> <p><a href="#">Continue to this webpage (not recommended)</a></p> |

Procedure 22: Configure NOAMP Signaling Interfaces

| Step                                       | Procedure  | Result  |
|--|--|---|
| <p>9.</p> <p><input type="checkbox"/></p>  | <p><b>Active NOAMP VIP</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p> |   |
| <p>10.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>The user should be presented the Main Menu as shown on the right.</p>  |  |


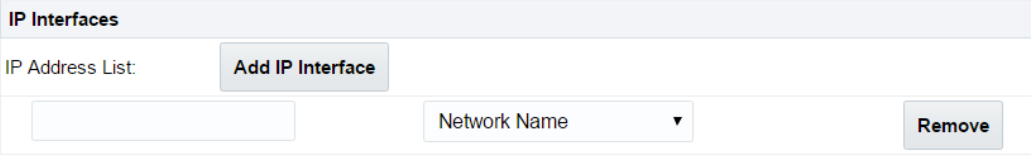
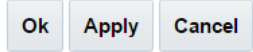

Procedure 22: Configure NOAMP Signaling Interfaces

| Step                                       | Procedure  | Result   |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
|--|--|--|-------|-------|-------------|-------------|--|---|---------------|--|---|---------------|------|---|-------------|------|---|---------|------|---------------------|---------------------|-----|--|----------------|-----|---|
| <p>11.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>                     → Configuration<br/>                     → Networking<br/>                     → Devices</p> <p>...as shown on the right.</p> | <p>For Normal Capacity C-Class Configuration:</p> <p><b>Main Menu: Configuration -&gt; Networking -&gt; Devices</b></p> <p style="text-align: right;">Thu Jun 30 14:54:30 2016</p>  <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B(XSI-1)</p>   |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
| <p>12.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Click on Insert.</p>   | <p>Click on the desired <b>NOAMP</b> tab.</p> <p>Output similar to that shown below may be observed.</p> <p><b>Main Menu: Configuration -&gt; Networking -&gt; Devices [Insert]</b></p> <p style="text-align: right;">Thu Jun 30 14:55:36 2016</p> <p>Insert Device on Site1-NO-B</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Device Type</td> <td> <input type="radio"/> Bonding<br/> <input type="radio"/> Vlan<br/> <input type="radio"/> Alias                 </td> <td>Select the device type. It cannot be changed after device is created. [Default = N/A, Range = Bonding, Vlan, Alias]</td> </tr> <tr> <td>Start On Boot</td> <td><input checked="" type="checkbox"/> Enable</td> <td>Start the device, and also start on boot. [Default = enabled]</td> </tr> <tr> <td>Boot Protocol</td> <td>None</td> <td>Select the boot protocol. [Default = None, Range = None,DHCP]</td> </tr> <tr> <td>MTU Setting</td> <td>1500</td> <td>The MTU setting. [Default = 1500 bytes per packet, Range = 1280-65570.] NOTE: Changing the MTU setting for an existing interface will restart the interface, which will be service affecting. NOTE: When attempting to increase the MTU above the default value, simply changing the MTU value on Appworks-managed network devices is not sufficient, especially in a VM environment. Appworks-managed devices, typically a VLAN device on a bonded or virtual interface, will not exceed the MTU value of the parent device. TPD utilities must be used to increase the MTU value of the non-Appworks-managed parent device. In addition, the switches would have to be reconfigured to use higher MTU values.</td> </tr> <tr> <td>Primary</td> <td>None</td> <td>Select the primary.</td> </tr> <tr> <td>Monitoring Interval</td> <td>100</td> <td>The MII monitoring interval in milliseconds. [Default = 100ms, Range = a positive integer]</td> </tr> <tr> <td>Upstream Delay</td> <td>200</td> <td>The MII upstream delay in milliseconds. [Default = 200ms, Range = a positive integer]</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B(XSI-1)</p> | Field | Value | Description | Device Type | <input type="radio"/> Bonding<br><input type="radio"/> Vlan<br><input type="radio"/> Alias | Select the device type. It cannot be changed after device is created. [Default = N/A, Range = Bonding, Vlan, Alias] | Start On Boot | <input checked="" type="checkbox"/> Enable | Start the device, and also start on boot. [Default = enabled] | Boot Protocol | None | Select the boot protocol. [Default = None, Range = None,DHCP] | MTU Setting | 1500 | The MTU setting. [Default = 1500 bytes per packet, Range = 1280-65570.] NOTE: Changing the MTU setting for an existing interface will restart the interface, which will be service affecting. NOTE: When attempting to increase the MTU above the default value, simply changing the MTU value on Appworks-managed network devices is not sufficient, especially in a VM environment. Appworks-managed devices, typically a VLAN device on a bonded or virtual interface, will not exceed the MTU value of the parent device. TPD utilities must be used to increase the MTU value of the non-Appworks-managed parent device. In addition, the switches would have to be reconfigured to use higher MTU values. | Primary | None | Select the primary. | Monitoring Interval | 100 | The MII monitoring interval in milliseconds. [Default = 100ms, Range = a positive integer] | Upstream Delay | 200 | The MII upstream delay in milliseconds. [Default = 200ms, Range = a positive integer] |
| Field                                      | Value  | Description  |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
| Device Type                                | <input type="radio"/> Bonding<br><input type="radio"/> Vlan<br><input type="radio"/> Alias   | Select the device type. It cannot be changed after device is created. [Default = N/A, Range = Bonding, Vlan, Alias]  |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
| Start On Boot                              | <input checked="" type="checkbox"/> Enable   | Start the device, and also start on boot. [Default = enabled]  |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
| Boot Protocol                              | None   | Select the boot protocol. [Default = None, Range = None,DHCP]  |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
| MTU Setting                                | 1500   | The MTU setting. [Default = 1500 bytes per packet, Range = 1280-65570.] NOTE: Changing the MTU setting for an existing interface will restart the interface, which will be service affecting. NOTE: When attempting to increase the MTU above the default value, simply changing the MTU value on Appworks-managed network devices is not sufficient, especially in a VM environment. Appworks-managed devices, typically a VLAN device on a bonded or virtual interface, will not exceed the MTU value of the parent device. TPD utilities must be used to increase the MTU value of the non-Appworks-managed parent device. In addition, the switches would have to be reconfigured to use higher MTU values.  |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
| Primary                                    | None   | Select the primary.  |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
| Monitoring Interval                        | 100  | The MII monitoring interval in milliseconds. [Default = 100ms, Range = a positive integer]   |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |
| Upstream Delay                             | 200  | The MII upstream delay in milliseconds. [Default = 200ms, Range = a positive integer]  |       |       |             |             |  |   |               |  |   |               |      |   |             |      |   |         |      |                     |                     |     |  |                |     |   |

Procedure 22: Configure NOAMP Signaling Interfaces

| Step                                       | Procedure  | Result   |       |       |             |             |   |  |               |  |   |               |        |   |             |      |   |             |  |   |
|--|--|--|-------|-------|-------------|-------------|---|--|---------------|--|---|---------------|--------|---|-------------|------|---|-------------|--|---|
| <p>13.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <ol style="list-style-type: none"> <li>Select Device Type as Vlan and</li> <li>Select Base Device for the Signaling Bond Interface</li> </ol> | <p>Select Device Type as <b>Vlan</b> and<br/>                     Select Base Device as Signaling Bond Interface i.e. <b>bond0</b> on Topology 1/1A and Topology 3/3A or <b>bond1</b> on Topology 4/4A<br/>                     Output similar to that shown below may be observed.</p> <hr/> <p><b>Main Menu: Configuration -&gt; Networking -&gt; Devices [Insert]</b> <span style="float: right;">Thu Jun 30 14:58:07 2016</span></p> <p><input type="button" value="Info"/> ▾</p> <p><b>Insert Device on Site2-NO-A</b></p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Device Type</td> <td> <input type="radio"/> Bonding<br/> <input checked="" type="radio"/> Vlan<br/> <input type="radio"/> Alias                 </td> <td>Select the device type. It cannot be changed after device is created. [Default = N/A. Range = Bonding, Vlan, Alias.]</td> </tr> <tr> <td>Start On Boot</td> <td><input checked="" type="checkbox"/> Enable</td> <td>Start the device, and also start on boot. [Default = enabled]</td> </tr> <tr> <td>Boot Protocol</td> <td>None ▾</td> <td>Select the boot protocol. [Default = None, Range = None,DHCP]</td> </tr> <tr> <td>MTU Setting</td> <td>1500</td> <td>The MTU setting. [Default = 1500 bytes per packet. Range = 1280-65570.] NOTE: Changing the MTU setting for an existing interface will restart the interface, which will be service affecting. NOTE: When attempting to increase the MTU above the default value, simply changing the MTU value on Appworks-managed network devices is not sufficient, especially in a VM environment. Appworks-managed devices, typically a VLAN device on a bonded or virtual interface, will not exceed the MTU value of the parent device. TPD utilities must be used to increase the MTU value of the non-Appworks-managed parent device. In addition, the switches would have to be reconfigured to use higher MTU values.</td> </tr> <tr> <td>Base Device</td> <td> <input checked="" type="radio"/> bond0<br/> <input type="radio"/> eth01<br/> <input type="radio"/> eth02<br/> <input type="radio"/> eth21<br/> <input type="radio"/> eth22                 </td> <td>The base device for a Vlan device. Vlan devices require 1 selection. It cannot be changed after device is created. [Default = N/A. Range = available base devices per device type.]</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>“<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B(XSI-1)</p> | Field | Value | Description | Device Type | <input type="radio"/> Bonding<br><input checked="" type="radio"/> Vlan<br><input type="radio"/> Alias | Select the device type. It cannot be changed after device is created. [Default = N/A. Range = Bonding, Vlan, Alias.] | Start On Boot | <input checked="" type="checkbox"/> Enable | Start the device, and also start on boot. [Default = enabled] | Boot Protocol | None ▾ | Select the boot protocol. [Default = None, Range = None,DHCP] | MTU Setting | 1500 | The MTU setting. [Default = 1500 bytes per packet. Range = 1280-65570.] NOTE: Changing the MTU setting for an existing interface will restart the interface, which will be service affecting. NOTE: When attempting to increase the MTU above the default value, simply changing the MTU value on Appworks-managed network devices is not sufficient, especially in a VM environment. Appworks-managed devices, typically a VLAN device on a bonded or virtual interface, will not exceed the MTU value of the parent device. TPD utilities must be used to increase the MTU value of the non-Appworks-managed parent device. In addition, the switches would have to be reconfigured to use higher MTU values. | Base Device | <input checked="" type="radio"/> bond0<br><input type="radio"/> eth01<br><input type="radio"/> eth02<br><input type="radio"/> eth21<br><input type="radio"/> eth22 | The base device for a Vlan device. Vlan devices require 1 selection. It cannot be changed after device is created. [Default = N/A. Range = available base devices per device type.] |
| Field                                      | Value  | Description  |       |       |             |             |   |  |               |  |   |               |        |   |             |      |   |             |  |   |
| Device Type                                | <input type="radio"/> Bonding<br><input checked="" type="radio"/> Vlan<br><input type="radio"/> Alias  | Select the device type. It cannot be changed after device is created. [Default = N/A. Range = Bonding, Vlan, Alias.]   |       |       |             |             |   |  |               |  |   |               |        |   |             |      |   |             |  |   |
| Start On Boot                              | <input checked="" type="checkbox"/> Enable   | Start the device, and also start on boot. [Default = enabled]  |       |       |             |             |   |  |               |  |   |               |        |   |             |      |   |             |  |   |
| Boot Protocol                              | None ▾   | Select the boot protocol. [Default = None, Range = None,DHCP]  |       |       |             |             |   |  |               |  |   |               |        |   |             |      |   |             |  |   |
| MTU Setting                                | 1500   | The MTU setting. [Default = 1500 bytes per packet. Range = 1280-65570.] NOTE: Changing the MTU setting for an existing interface will restart the interface, which will be service affecting. NOTE: When attempting to increase the MTU above the default value, simply changing the MTU value on Appworks-managed network devices is not sufficient, especially in a VM environment. Appworks-managed devices, typically a VLAN device on a bonded or virtual interface, will not exceed the MTU value of the parent device. TPD utilities must be used to increase the MTU value of the non-Appworks-managed parent device. In addition, the switches would have to be reconfigured to use higher MTU values.  |       |       |             |             |   |  |               |  |   |               |        |   |             |      |   |             |  |   |
| Base Device                                | <input checked="" type="radio"/> bond0<br><input type="radio"/> eth01<br><input type="radio"/> eth02<br><input type="radio"/> eth21<br><input type="radio"/> eth22           | The base device for a Vlan device. Vlan devices require 1 selection. It cannot be changed after device is created. [Default = N/A. Range = available base devices per device type.]  |       |       |             |             |   |  |               |  |   |               |        |   |             |      |   |             |  |   |

Procedure 22: Configure NOAMP Signaling Interfaces

| Step   | Procedure   | Result  |
|--|---|---|
| <p>14.</p> <p><input type="checkbox"/></p>   | <p><b>Active NOAMP VIP</b></p> <p>Add an xsi IP Address.</p>  | <p>Click on the <b>IP Interfaces</b> button.</p>  <p>IP Address List: <b>Add IP Interface</b></p> <p>Output similar to that shown below may be observed.</p>  <p>Set the Network Name to <b>xsi1</b>.<br/>Enter the <b>xsi1 IP Address</b>.<br/>Click on the <b>Ok</b> button.</p>  <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B(XSI-1)</p> |
| <p>Repeat <b>Steps 11-14</b> for each NOAMP and its Signaling network to be used for ComAgent.<br/><b>Note: Steps 15-20</b> are only required for geo-redundant systems.</p> |   |   |
| <p>15.</p> <p><input type="checkbox"/></p>   | <p><b>Active NOAMP VIP</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ <b>Configuration</b><br/>→ <b>Networking</b><br/>→ <b>Routes</b></p> <p>...as shown on the right.</p> | <p>Main Menu: Configuration -&gt; Networking -&gt; Routes</p>   |

Procedure 22: Configure NOAMP Signaling Interfaces

| Step                                       | Procedure   | Result   |                |             |             |                      |             |             |                      |            |         |         |  |                |     |        |            |        |
|--|---|--|----------------|-------------|-------------|----------------------|-------------|-------------|----------------------|------------|---------|---------|--|----------------|-----|--------|------------|--------|
| <p>16.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Insert a new route for the NOAMP for <b>Primary Site</b>.</p> | <p>Click on the desired <b>Primary Site Server Group</b> tab on the top line.</p> <p>Then click on the <b>Entire Server Group</b> tab on the line below <b>Server Group</b> line.</p> <p>Output similar to that shown below may be observed.</p> <p>Main Menu: Configuration -&gt; Networking -&gt; Routes <span style="float: right;">Fri Dec 02 09:1</span></p> <hr/> <p>Entire Network <a href="#">MP_grp</a> <a href="#">NO_grp</a> <a href="#">SO_grp</a></p> <p>Entire Server Group <a href="#">NO-A</a> <a href="#">NO-B</a></p> <table border="1"> <thead> <tr> <th>Route Type</th> <th>Destination</th> <th>Netmask</th> <th>Gateway</th> <th>Device Name</th> <th>Route Scope</th> <th>Configuration Status</th> <th>Is Locked?</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>0.0.0.0</td> <td></td> <td>10.240.199.129</td> <td>xmi</td> <td>Server</td> <td>Discovered</td> <td>Locked</td> </tr> </tbody> </table> <p style="text-align: center;"> <input type="text"/> </p> <p style="text-align: center;"> <input type="button" value="Insert"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Report"/> <input type="button" value="Report All"/> </p> <p>Click on the <b>Insert</b> button</p> <ul style="list-style-type: none"> <li>• <b>“Check off”</b> the associated <b>Check Box</b> as addition is completed for each <b>Network</b>.</li> </ul> <p><input type="checkbox"/> XSI-1</p> | Route Type     | Destination | Netmask     | Gateway              | Device Name | Route Scope | Configuration Status | Is Locked? | default | 0.0.0.0 |  | 10.240.199.129 | xmi | Server | Discovered | Locked |
| Route Type                                 | Destination   | Netmask  | Gateway        | Device Name | Route Scope | Configuration Status | Is Locked?  |             |                      |            |         |         |  |                |     |        |            |        |
| default                                    | 0.0.0.0   |  | 10.240.199.129 | xmi         | Server      | Discovered           | Locked      |             |                      |            |         |         |  |                |     |        |            |        |

Procedure 22: Configure NOAMP Signaling Interfaces

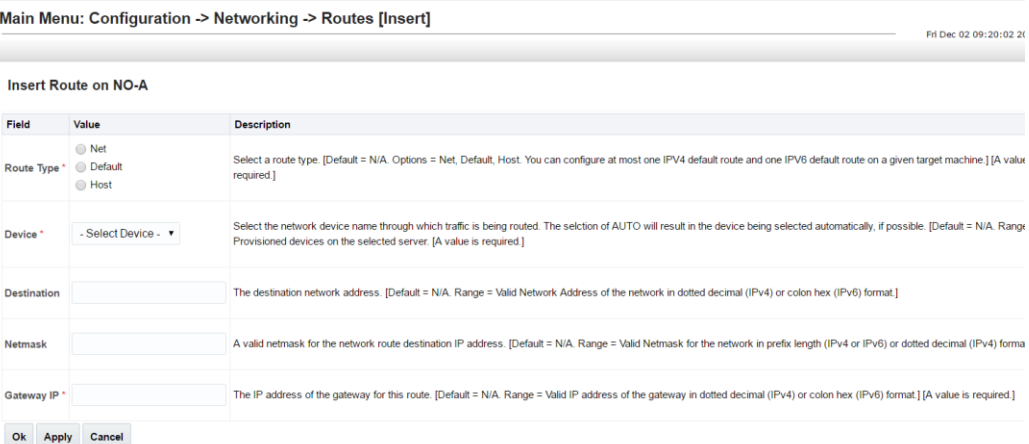
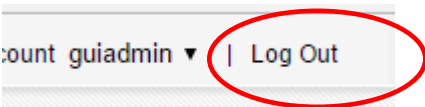
| Step                                       | Procedure  | Result   |       |       |             |              |  |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
|--|--|--|-------|-------|-------------|--------------|--|---|----------|---------------------|---|-------------|----------------------|---|---------|----------------------|---|--------------|----------------------|--|
| <p>17.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Add xsi signaling route to NOAMP for <b>Primary Site</b></p> | <p>Output similar to that shown below may be observed.</p> <p>Main Menu: Configuration -&gt; Networking -&gt; Routes [Insert] <span style="float: right;">Thu Dec 01 15:48:14 2016 F</span></p> <hr/> <p>Insert Route on NO-A</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Route Type *</td> <td> <input type="radio"/> Net<br/> <input type="radio"/> Default<br/> <input type="radio"/> Host                 </td> <td>Select a route type. [Default = N/A. Options = Net, Default, Host. You can configure at most one IPv4 default route and one IPv6 default route on a given target machine.] [A value is required.]</td> </tr> <tr> <td>Device *</td> <td>- Select Device - ▾</td> <td>Select the network device name through which traffic is being routed. The selection of AUTO will result in the device being selected automatically, if possible. [Default = N/A. Range = Provisioned devices on the selected server. [A value is required.]</td> </tr> <tr> <td>Destination</td> <td><input type="text"/></td> <td>The destination network address. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.]</td> </tr> <tr> <td>Netmask</td> <td><input type="text"/></td> <td>A valid netmask for the network route destination IP address. [Default = N/A. Range = Valid Netmask for the network in prefix length (IPv4 or IPv6) or dotted decimal (IPv4) format.]</td> </tr> <tr> <td>Gateway IP *</td> <td><input type="text"/></td> <td>The IP address of the gateway for this route. [Default = N/A. Range = Valid IP address of the gateway in dotted decimal (IPv4) or colon hex (IPv6) format.] [A value is required.]</td> </tr> </tbody> </table> <p>Ok Apply Cancel</p> <p>Set <b>Route Type</b> to desired value<br/> Set <b>Device</b> to <b>Signaling Interface</b><br/> Enter <b>Destination</b>: This is the address of the DR Site Signaling network address of MPs that will connect to Primary Site NOAMP on the signaling network,<br/> Enter <b>Netmask</b> for the DR Site Signaling network.<br/> Enter <b>Gateway IP</b> : This is the gateway for Oracle Communications User Data Repository Primary Site signaling network as configured in Procedure 3, Step 10.<br/> Click <b>Apply</b> button</p> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Network</b>.</li> </ul> <p><input type="checkbox"/> XSI-1</p> | Field | Value | Description | Route Type * | <input type="radio"/> Net<br><input type="radio"/> Default<br><input type="radio"/> Host | Select a route type. [Default = N/A. Options = Net, Default, Host. You can configure at most one IPv4 default route and one IPv6 default route on a given target machine.] [A value is required.] | Device * | - Select Device - ▾ | Select the network device name through which traffic is being routed. The selection of AUTO will result in the device being selected automatically, if possible. [Default = N/A. Range = Provisioned devices on the selected server. [A value is required.] | Destination | <input type="text"/> | The destination network address. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.] | Netmask | <input type="text"/> | A valid netmask for the network route destination IP address. [Default = N/A. Range = Valid Netmask for the network in prefix length (IPv4 or IPv6) or dotted decimal (IPv4) format.] | Gateway IP * | <input type="text"/> | The IP address of the gateway for this route. [Default = N/A. Range = Valid IP address of the gateway in dotted decimal (IPv4) or colon hex (IPv6) format.] [A value is required.] |
| Field                                      | Value  | Description  |       |       |             |              |  |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Route Type *                               | <input type="radio"/> Net<br><input type="radio"/> Default<br><input type="radio"/> Host       | Select a route type. [Default = N/A. Options = Net, Default, Host. You can configure at most one IPv4 default route and one IPv6 default route on a given target machine.] [A value is required.]  |       |       |             |              |  |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Device *                                   | - Select Device - ▾  | Select the network device name through which traffic is being routed. The selection of AUTO will result in the device being selected automatically, if possible. [Default = N/A. Range = Provisioned devices on the selected server. [A value is required.]  |       |       |             |              |  |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Destination                                | <input type="text"/>   | The destination network address. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.]  |       |       |             |              |  |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Netmask                                    | <input type="text"/>   | A valid netmask for the network route destination IP address. [Default = N/A. Range = Valid Netmask for the network in prefix length (IPv4 or IPv6) or dotted decimal (IPv4) format.]  |       |       |             |              |  |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Gateway IP *                               | <input type="text"/>   | The IP address of the gateway for this route. [Default = N/A. Range = Valid IP address of the gateway in dotted decimal (IPv4) or colon hex (IPv6) format.] [A value is required.]   |       |       |             |              |  |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |



Procedure 22: Configure NOAMP Signaling Interfaces

| Step                                       | Procedure   | Result  |                |             |             |                      |             |             |                      |           |         |         |  |                |     |        |            |        |
|--|---|---|----------------|-------------|-------------|----------------------|-------------|-------------|----------------------|-----------|---------|---------|--|----------------|-----|--------|------------|--------|
| <p>18.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Insert a new route for the NOAMP for DR Site.</p> | <p>Click on the desired <b>DR Site Server Group</b> tab on the top line.</p> <p>Then click on the <b>Entire Server Group</b> tab on the line below <b>Server Group</b> line.</p> <p>Output similar to that shown below may be observed.</p> <p>Main Menu: Configuration -&gt; Networking -&gt; Routes <span style="float: right;">Fri Dec 0:</span></p> <hr/> <p>Entire Network   MP_grp   NO_grp   SO_grp</p> <p>NO-A   NO-B   SO-A   SO-B   MP-2   MP-3   MP-4   MP-1</p> <table border="1"> <thead> <tr> <th>Route Type</th> <th>Destination</th> <th>Netmask</th> <th>Gateway</th> <th>Device Name</th> <th>Route Scope</th> <th>Configuration Status</th> <th>Is Locked</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>0.0.0.0</td> <td></td> <td>10.240.199.129</td> <td>xmi</td> <td>Server</td> <td>Discovered</td> <td>Locked</td> </tr> </tbody> </table> <p style="text-align: center;"> <input type="button" value="Insert"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Report"/> <input type="button" value="Report All"/> </p> <p>Click on the <b>Insert</b> button</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Network</b>.</li> </ul> <p><input type="checkbox"/> XSI-1</p> | Route Type     | Destination | Netmask     | Gateway              | Device Name | Route Scope | Configuration Status | Is Locked | default | 0.0.0.0 |  | 10.240.199.129 | xmi | Server | Discovered | Locked |
| Route Type                                 | Destination   | Netmask   | Gateway        | Device Name | Route Scope | Configuration Status | Is Locked   |             |                      |           |         |         |  |                |     |        |            |        |
| default                                    | 0.0.0.0   |   | 10.240.199.129 | xmi         | Server      | Discovered           | Locked      |             |                      |           |         |         |  |                |     |        |            |        |

Procedure 22: Configure NOAMP Signaling Interfaces

| Step  | Procedure   | Result   |
|---|---|--|
| <p>19.</p> <p><input type="checkbox"/></p>      | <p><b>Active NOAMP VIP</b></p> <p>Add xsi signaling route to NOAMP for <b>DR Site</b></p> | <p>Output similar to that shown below may be observed.</p>  <p>Set <b>Route Type</b> to desired value</p> <p>Set <b>Device</b> to <b>Signaling Interface</b></p> <p>Enter <b>Destination</b>: This is the address of the Primary Site Signaling network address of MPs that will connect to DR Site NOAMP on the signaling network,</p> <p>Enter <b>Netmask</b> for the Primary Site Signaling network.</p> <p>Enter <b>Gateway IP</b> : This is the gateway for Oracle Communications User Data Repository DR Site signaling network as configured in Procedure 3, Step 10.</p> <p>Click <b>Apply</b> button</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Network</b>.</li> </ul> <p><input type="checkbox"/> XSI-1</p> |
| <p>20.</p> <p><input type="checkbox"/></p>      | <p><b>Active NOAMP VIP:</b></p> <p>Click the “<b>Logout</b>” link on the server GUI.</p>  |   |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |   |  |

8.10 Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity Systems)

This procedure configures XSI IP Interface and adds the XSI signaling route for all NOAMP Virtual Servers on RMS.

Requirements:


- **Procedure 17: OAM Pairing for the Primary NOAMP Servers** has been completed.
- **Procedure 18: OAM pairing for SOAM and DR sites (All SOAM and DR Sites)** has been completed.

**Oracle Communications User Data Repository Installation and Configuration Guide**

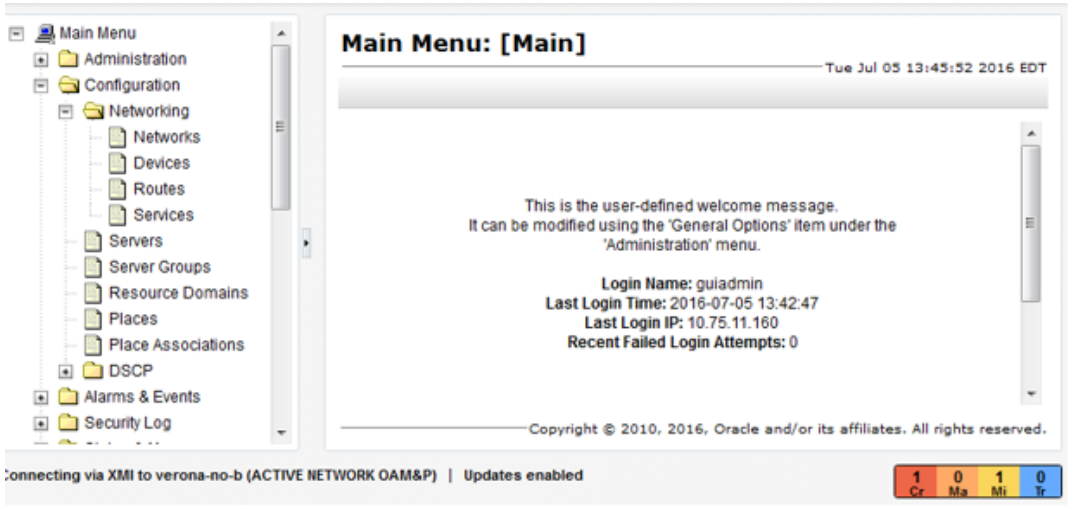
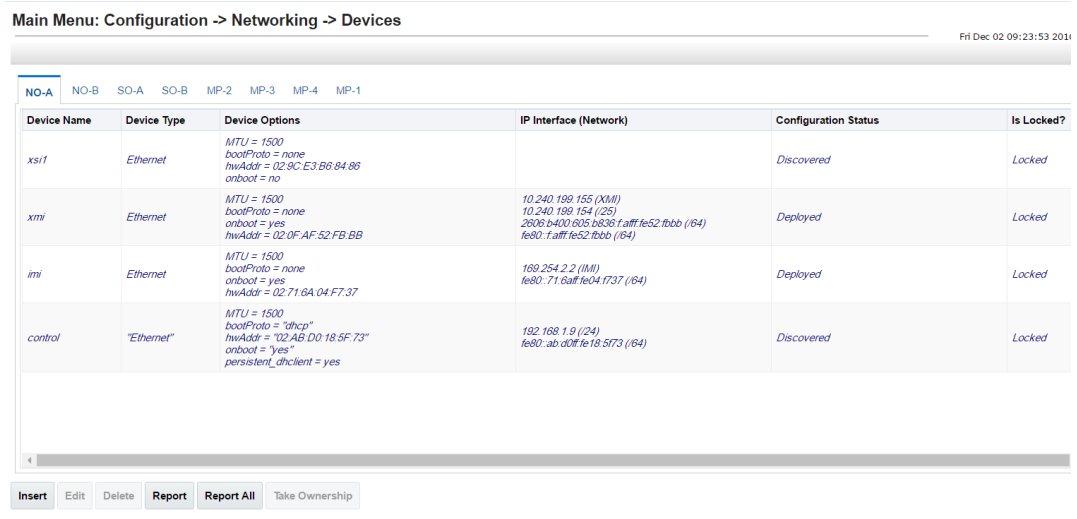
- **Procedure 19: Configuring MP Server Groups (All SOAM sites)** has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.


**Procedure 23: Configure NOAMP Signaling Interfaces**(virtual NOAMP servers on Low Capacity Systems)

| Step   | Procedure  | Result   |
|--|--|--|
| <p>1.</p> <input type="checkbox"/>   | <p><b>Active NOAMP VIP</b></p> <p>Launch an approved web browser and connect to the <b>XMI Virtual IP Address(VIP)</b> of the <b>Active NOAMP site</b> using <a href="https://">https://</a></p> <p><b>NOTE:</b>If presented with the “security certificate” warning screen shown to the right, choose the following option:<br/> <b>“Continue to this website (not recommended)”</b>.</p> |  <p><b>There is a problem with this website's security certificate</b></p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p> <a href="#">Go to my homepage instead</a></p> <p> <a href="#">Continue to this webpage (not recommended)</a></p> |
| <p>2.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>   |    |

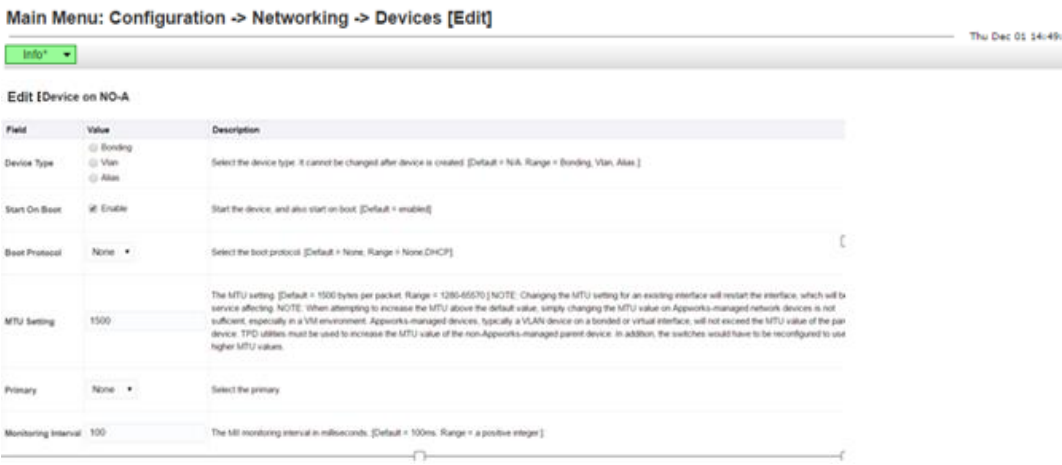
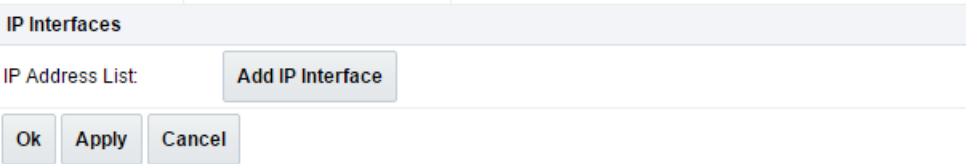
**Procedure 23: Configure NOAMP Signaling Interfaces**(virtual NOAMP servers on Low Capacity Systems)

| Step   | Procedure  | Result   |  |                      |                |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |
|--|--|--|--|----------------------|----------------|------------------------|----------------------|------------|------|----------|---|--|------------|--------|-----|----------|--|--|----------|--------|-----|----------|--|---|----------|--------|---------|------------|---|--|------------|--------|
| <p>3.</p> <div style="border: 1px solid black; width: 30px; height: 30px; margin-left: 10px;"></div> | <p><b>Active NOAMP VIP</b></p> <p>The user should be presented the Main Menu as shown on the right.</p>  |  <p><b>Main Menu: [Main]</b> Tue Jul 05 13:45:52 2016 EDT</p> <p>This is the user-defined welcome message. It can be modified using the 'General Options' item under the 'Administration' menu.</p> <p>Login Name: guiladmin<br/>         Last Login Time: 2016-07-05 13:42:47<br/>         Last Login IP: 10.75.11.160<br/>         Recent Failed Login Attempts: 0</p> <p>Copyright © 2010, 2016, Oracle and/or its affiliates. All rights reserved.</p> <p>Connecting via XMI to verona-no-b (ACTIVE NETWORK OAM&amp;P)   Updates enabled</p>   |  |                      |                |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |
| <p>4.</p> <div style="border: 1px solid black; width: 30px; height: 30px; margin-left: 10px;"></div> | <p>Bring up xsi1 on the servers before executing steps below.</p>  | <p><b>NOTE: For Low Capacity Servers only:</b></p> <p>Execute "ifup xsi1" on all NO Servers:<br/>         (switch to root)<br/>         # ifup xsi1</p>  |  |                      |                |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |
| <p><b>Note:</b> Repeat the steps below (<b>Steps 5 - 9</b>) for each NOAMP.</p>                      |  |  |  |                      |                |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |
| <p>5.</p> <div style="border: 1px solid black; width: 30px; height: 30px; margin-left: 10px;"></div> | <p><b>Active NOAMP VIP</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>         → Configuration<br/>         → Networking<br/>         → Devices</p> <p>...as shown on the right.</p> |  <p>Main Menu: Configuration -&gt; Networking -&gt; Devices Fri Dec 02 09:23:53 2011</p> <table border="1"> <thead> <tr> <th>Device Name</th> <th>Device Type</th> <th>Device Options</th> <th>IP Interface (Network)</th> <th>Configuration Status</th> <th>Is Locked?</th> </tr> </thead> <tbody> <tr> <td>xsi1</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>hwAddr = 02:9C:E3:B6:84:86<br/>onboot = no</td> <td></td> <td>Discovered</td> <td>Locked</td> </tr> <tr> <td>xmi</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>onboot = yes<br/>hwAddr = 02:0F:AF:52:FB:BB</td> <td>10.240.199.155 (XMI)<br/>10.240.199.154 (25)<br/>2806:b400:605:b836:faff:fe52:fbbb (/64)<br/>fe80::faff:fe52:fbbb (/64)</td> <td>Deployed</td> <td>Locked</td> </tr> <tr> <td>imi</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>onboot = yes<br/>hwAddr = 02:71:8A:04:F7:37</td> <td>189.254.2.2 (MI)<br/>fe80::71:8aff:fe04:f737 (/64)</td> <td>Deployed</td> <td>Locked</td> </tr> <tr> <td>control</td> <td>"Ethernet"</td> <td>MTU = 1500<br/>bootProto = "dhcp"<br/>hwAddr = "02:AB:D0:18:5F:73"<br/>onboot = "yes"<br/>persistent_dhclient = yes</td> <td>192.168.1.9 (/24)<br/>fe80::ab:d0ff:fe18:5f73 (/64)</td> <td>Discovered</td> <td>Locked</td> </tr> </tbody> </table> <p>Insert Edit Delete Report Report All Take Ownership</p> <ul style="list-style-type: none"> <li>• "Check off" the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B (XSI-1)</p> | Device Name  | Device Type          | Device Options | IP Interface (Network) | Configuration Status | Is Locked? | xsi1 | Ethernet | MTU = 1500<br>bootProto = none<br>hwAddr = 02:9C:E3:B6:84:86<br>onboot = no |  | Discovered | Locked | xmi | Ethernet | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:0F:AF:52:FB:BB | 10.240.199.155 (XMI)<br>10.240.199.154 (25)<br>2806:b400:605:b836:faff:fe52:fbbb (/64)<br>fe80::faff:fe52:fbbb (/64) | Deployed | Locked | imi | Ethernet | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:71:8A:04:F7:37 | 189.254.2.2 (MI)<br>fe80::71:8aff:fe04:f737 (/64) | Deployed | Locked | control | "Ethernet" | MTU = 1500<br>bootProto = "dhcp"<br>hwAddr = "02:AB:D0:18:5F:73"<br>onboot = "yes"<br>persistent_dhclient = yes | 192.168.1.9 (/24)<br>fe80::ab:d0ff:fe18:5f73 (/64) | Discovered | Locked |
| Device Name  | Device Type  | Device Options   | IP Interface (Network)   | Configuration Status | Is Locked?     |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |
| xsi1   | Ethernet   | MTU = 1500<br>bootProto = none<br>hwAddr = 02:9C:E3:B6:84:86<br>onboot = no  |  | Discovered           | Locked         |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |
| xmi  | Ethernet   | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:0F:AF:52:FB:BB   | 10.240.199.155 (XMI)<br>10.240.199.154 (25)<br>2806:b400:605:b836:faff:fe52:fbbb (/64)<br>fe80::faff:fe52:fbbb (/64) | Deployed             | Locked         |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |
| imi  | Ethernet   | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:71:8A:04:F7:37   | 189.254.2.2 (MI)<br>fe80::71:8aff:fe04:f737 (/64)  | Deployed             | Locked         |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |
| control  | "Ethernet"   | MTU = 1500<br>bootProto = "dhcp"<br>hwAddr = "02:AB:D0:18:5F:73"<br>onboot = "yes"<br>persistent_dhclient = yes  | 192.168.1.9 (/24)<br>fe80::ab:d0ff:fe18:5f73 (/64)   | Discovered           | Locked         |                        |                      |            |      |          |   |  |            |        |     |          |  |  |          |        |     |          |  |   |          |        |         |            |   |  |            |        |

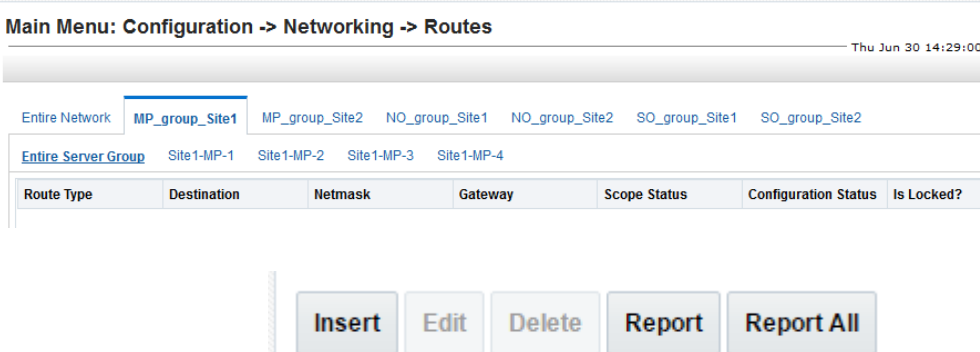
**Procedure 23: Configure NOAMP Signaling Interfaces**(virtual NOAMP servers on Low Capacity Systems)

| Step   | Procedure   | Result   |   |                      |                |                        |                      |            |      |          |   |  |            |        |     |          |  |   |          |        |     |          |  |   |          |        |         |            |   |   |            |        |
|--|---|--|---|----------------------|----------------|------------------------|----------------------|------------|------|----------|---|--|------------|--------|-----|----------|--|---|----------|--------|-----|----------|--|---|----------|--------|---------|------------|---|---|------------|--------|
| <p>6.</p> <input type="checkbox"/>   | <p><b>Active NOAMP VIP</b></p> <p>Select the xsi device for the desired NOAMP</p> | <p>Click on the desired <b>NOAMP</b> tab.</p> <p>Select the <b>xsi1</b> device.</p> <p>Output similar to that shown below may be observed.</p> <p>Main Menu: Configuration -&gt; Networking -&gt; Devices <span style="float: right;">Fri Dec 02 09:24:53 201</span></p> <table border="1"> <thead> <tr> <th>Device Name</th> <th>Device Type</th> <th>Device Options</th> <th>IP Interface (Network)</th> <th>Configuration Status</th> <th>Is Locked?</th> </tr> </thead> <tbody> <tr> <td>xsi1</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>hwAddr = 02:9C:E3:B6:84:86<br/>onboot = no</td> <td>1002:deba:d97c:60a:9c:e3ff:feb6:8486 (/64)<br/>fe80:9c:e3ff:feb6:8486 (/64)</td> <td>Discovered</td> <td>Locked</td> </tr> <tr> <td>xmi</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>onboot = yes<br/>hwAddr = 02:0F:AF:52:FB:BB</td> <td>10.240.199.155 (XMI)<br/>10.240.199.154 (25)<br/>2005:1400:805:1838:1:aff:fe52:fbbb (/64)<br/>fe80:1:aff:fe52:fbbb (/64)</td> <td>Deployed</td> <td>Locked</td> </tr> <tr> <td>imi</td> <td>Ethernet</td> <td>MTU = 1500<br/>bootProto = none<br/>onboot = yes<br/>hwAddr = 02:71:6A:04:F7:37</td> <td>169.254.2.2 (IMI)<br/>fe80:71:6aff:fe04:f737 (/64)</td> <td>Deployed</td> <td>Locked</td> </tr> <tr> <td>control</td> <td>"Ethernet"</td> <td>MTU = 1500<br/>bootProto = "dhcp"<br/>hwAddr = "02:AB:D0:18:5F:73"<br/>onboot = "yes"<br/>persistent dhcpclient = yes</td> <td>192.168.1.9 (/24)<br/>fe80:ab:d0ff:fe18:5f73 (/64)</td> <td>Discovered</td> <td>Locked</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• <b>“Check off”</b> the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B (XSI-1)</p> | Device Name   | Device Type          | Device Options | IP Interface (Network) | Configuration Status | Is Locked? | xsi1 | Ethernet | MTU = 1500<br>bootProto = none<br>hwAddr = 02:9C:E3:B6:84:86<br>onboot = no | 1002:deba:d97c:60a:9c:e3ff:feb6:8486 (/64)<br>fe80:9c:e3ff:feb6:8486 (/64) | Discovered | Locked | xmi | Ethernet | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:0F:AF:52:FB:BB | 10.240.199.155 (XMI)<br>10.240.199.154 (25)<br>2005:1400:805:1838:1:aff:fe52:fbbb (/64)<br>fe80:1:aff:fe52:fbbb (/64) | Deployed | Locked | imi | Ethernet | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:71:6A:04:F7:37 | 169.254.2.2 (IMI)<br>fe80:71:6aff:fe04:f737 (/64) | Deployed | Locked | control | "Ethernet" | MTU = 1500<br>bootProto = "dhcp"<br>hwAddr = "02:AB:D0:18:5F:73"<br>onboot = "yes"<br>persistent dhcpclient = yes | 192.168.1.9 (/24)<br>fe80:ab:d0ff:fe18:5f73 (/64) | Discovered | Locked |
| Device Name  | Device Type   | Device Options   | IP Interface (Network)  | Configuration Status | Is Locked?     |                        |                      |            |      |          |   |  |            |        |     |          |  |   |          |        |     |          |  |   |          |        |         |            |   |   |            |        |
| xsi1   | Ethernet  | MTU = 1500<br>bootProto = none<br>hwAddr = 02:9C:E3:B6:84:86<br>onboot = no  | 1002:deba:d97c:60a:9c:e3ff:feb6:8486 (/64)<br>fe80:9c:e3ff:feb6:8486 (/64)  | Discovered           | Locked         |                        |                      |            |      |          |   |  |            |        |     |          |  |   |          |        |     |          |  |   |          |        |         |            |   |   |            |        |
| xmi  | Ethernet  | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:0F:AF:52:FB:BB   | 10.240.199.155 (XMI)<br>10.240.199.154 (25)<br>2005:1400:805:1838:1:aff:fe52:fbbb (/64)<br>fe80:1:aff:fe52:fbbb (/64) | Deployed             | Locked         |                        |                      |            |      |          |   |  |            |        |     |          |  |   |          |        |     |          |  |   |          |        |         |            |   |   |            |        |
| imi  | Ethernet  | MTU = 1500<br>bootProto = none<br>onboot = yes<br>hwAddr = 02:71:6A:04:F7:37   | 169.254.2.2 (IMI)<br>fe80:71:6aff:fe04:f737 (/64)   | Deployed             | Locked         |                        |                      |            |      |          |   |  |            |        |     |          |  |   |          |        |     |          |  |   |          |        |         |            |   |   |            |        |
| control  | "Ethernet"  | MTU = 1500<br>bootProto = "dhcp"<br>hwAddr = "02:AB:D0:18:5F:73"<br>onboot = "yes"<br>persistent dhcpclient = yes  | 192.168.1.9 (/24)<br>fe80:ab:d0ff:fe18:5f73 (/64)   | Discovered           | Locked         |                        |                      |            |      |          |   |  |            |        |     |          |  |   |          |        |     |          |  |   |          |        |         |            |   |   |            |        |
| <p>7.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>Edit the xsi device for the desired NOAMP</p>   |  <ol style="list-style-type: none"> <li>1. Click on the <b>Take Ownership</b> button.</li> <li>2. Re-select the <b>xsi1</b> device.</li> <li>3. Click on the <b>Edit</b> button.</li> </ol> <ul style="list-style-type: none"> <li>• <b>“Check off”</b> the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B (XSI-1)</p>  |   |                      |                |                        |                      |            |      |          |   |  |            |        |     |          |  |   |          |        |     |          |  |   |          |        |         |            |   |   |            |        |

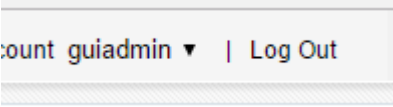
**Procedure 23: Configure NOAMP Signaling Interfaces**(virtual NOAMP servers on Low Capacity Systems)

| Step  | Procedure  | Result  |
|---|--|---|
| <p>8.</p> <p><input type="checkbox"/></p>   | <p><b>Active NOAMP VIP</b></p> <p>Enable “Start On Boot”</p> | <p>Check the <b>Start on Boot</b> check box (to make it enabled).<br/>Output similar to that shown below may be observed.</p>  <p>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</p> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B (XSI-1)</p>  |
| <p>9.</p> <p><input type="checkbox"/></p>   | <p><b>Active NOAMP VIP</b></p> <p>Add an xsi IP Address.</p> | <p>Click on the <b>IP Interfaces</b> tab.<br/>Output similar to that shown below may be observed.</p>  <p>Set the Network Name to <b>xsi1</b>.<br/>Enter the <b>xsi1 IP Address</b>.<br/>Click on the <b>Ok</b> button.</p> <p>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</p> <p><input type="checkbox"/> NOAMP-A (XSI-1) <input type="checkbox"/> NOAMP-B (XSI-1)</p> |
| <p>Repeat <b>Steps 5 - 9</b> for each NOAMP and its Signaling network(s).</p> <p><b>NOTE:</b> If a second <b>XSI</b> network is present (XSI-2), Steps 5 – 9 must be run for each NOAMP’s XSI-2 network.</p> <p><b>NOTE:</b> Steps 10-12 are only needed for geo-redundant systems.</p> |  |   |

**Procedure 23: Configure NOAMP Signaling Interfaces**(virtual NOAMP servers on Low Capacity Systems)

| Step  | Procedure  | Result  |
|---|--|---|
| <p>10.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>Select...</p> <p><b>Main Menu</b><br/> → <b>Configuration</b><br/> → <b>Networking</b><br/> → <b>Routes</b></p> <p>...as shown on the right.</p> |   |
| <p>11.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>Insert a new route for the MP.</p>   | <p>Click on the desired <b>Server Group</b> tab on the top line.<br/> Then click on the <b>Entire Server Group</b> tab on the line below <b>Server Group</b> line.<br/> Output similar to that shown below may be observed.</p>  <p>Click on the <b>Insert</b> button</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Network</b>.</li> </ul> <p><input type="checkbox"/> XSI-1</p> |

**Procedure 23: Configure NOAMP Signaling Interfaces**(virtual NOAMP servers on Low Capacity Systems)

| Step  | Procedure   | Result   |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
|---|---|--|-------|-------|-------------|--------------|---|---|----------|---------------------|---|-------------|----------------------|---|---------|----------------------|---|--------------|----------------------|--|
| <p>12.</p> <div style="border: 1px solid black; width: 30px; height: 30px; margin-left: 10px;"></div> | <p><b>Active NOAMP VIP</b></p> <p>Add xsi signaling route to MP</p>                                 | <p>Output similar to that shown below may be observed.</p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;"> <p>Main Menu: Configuration -&gt; Networking -&gt; Routes [Insert] <span style="float: right;">Fri Dec 02 09:39:18 2011</span></p> <hr/> <p style="text-align: center;">Insert Route on NO-A</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Field</th> <th>Value</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Route Type *</td> <td> <input type="radio"/> Net<br/> <input checked="" type="radio"/> Default<br/> <input type="radio"/> Host                 </td> <td>Select a route type. [Default = N/A. Options = Net, Default, Host. You can configure at most one IPv4 default route and one IPv6 default route on a given target machine.] [A value is required.]</td> </tr> <tr> <td>Device *</td> <td>- Select Device - ▾</td> <td>Select the network device name through which traffic is being routed. The selection of AUTO will result in the device being selected automatically, if possible. [Default = N/A. Range = Provisioned devices on the selected server. [A value is required.]</td> </tr> <tr> <td>Destination</td> <td><input type="text"/></td> <td>The destination network address. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.]</td> </tr> <tr> <td>Netmask</td> <td><input type="text"/></td> <td>A valid netmask for the network route destination IP address. [Default = N/A. Range = Valid Netmask for the network in prefix length (IPv4 or IPv6) or dotted decimal (IPv4) format.]</td> </tr> <tr> <td>Gateway IP *</td> <td><input type="text"/></td> <td>The IP address of the gateway for this route. [Default = N/A. Range = Valid IP address of the gateway in dotted decimal (IPv4) or colon hex (IPv6) format.] [A value is required.]</td> </tr> </tbody> </table> <p style="text-align: center;"> <input type="button" value="Ok"/> <input type="button" value="Apply"/> <input type="button" value="Cancel"/> </p> </div> <p>Set <b>Route Type</b> to desired value<br/> Set <b>Device</b> to <b>xsi1</b><br/> Enter <b>Destination</b>: This is the address of the Diameter Sh clients that will connect to Oracle Communications User Data Repository on the signaling network,<br/> Enter <b>Netmask</b> for the Diameter Sh client network.<br/> Enter <b>Gateway IP</b>: This is the gateway for Oracle Communications User Data Repository signaling network as configured in Procedure 3, Step 10.<br/> Click <b>Apply</b> button</p> <ul style="list-style-type: none"> <li>• <b>“Check off”</b> the associated <b>Check Box</b> as addition is completed for each <b>Network</b>.</li> </ul> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px; width: fit-content;"> <input type="checkbox"/> XSI-1         </div> | Field | Value | Description | Route Type * | <input type="radio"/> Net<br><input checked="" type="radio"/> Default<br><input type="radio"/> Host | Select a route type. [Default = N/A. Options = Net, Default, Host. You can configure at most one IPv4 default route and one IPv6 default route on a given target machine.] [A value is required.] | Device * | - Select Device - ▾ | Select the network device name through which traffic is being routed. The selection of AUTO will result in the device being selected automatically, if possible. [Default = N/A. Range = Provisioned devices on the selected server. [A value is required.] | Destination | <input type="text"/> | The destination network address. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.] | Netmask | <input type="text"/> | A valid netmask for the network route destination IP address. [Default = N/A. Range = Valid Netmask for the network in prefix length (IPv4 or IPv6) or dotted decimal (IPv4) format.] | Gateway IP * | <input type="text"/> | The IP address of the gateway for this route. [Default = N/A. Range = Valid IP address of the gateway in dotted decimal (IPv4) or colon hex (IPv6) format.] [A value is required.] |
| Field   | Value   | Description  |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Route Type *  | <input type="radio"/> Net<br><input checked="" type="radio"/> Default<br><input type="radio"/> Host | Select a route type. [Default = N/A. Options = Net, Default, Host. You can configure at most one IPv4 default route and one IPv6 default route on a given target machine.] [A value is required.]  |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Device *  | - Select Device - ▾   | Select the network device name through which traffic is being routed. The selection of AUTO will result in the device being selected automatically, if possible. [Default = N/A. Range = Provisioned devices on the selected server. [A value is required.]  |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Destination   | <input type="text"/>  | The destination network address. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.]  |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Netmask   | <input type="text"/>  | A valid netmask for the network route destination IP address. [Default = N/A. Range = Valid Netmask for the network in prefix length (IPv4 or IPv6) or dotted decimal (IPv4) format.]  |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Gateway IP *  | <input type="text"/>  | The IP address of the gateway for this route. [Default = N/A. Range = Valid IP address of the gateway in dotted decimal (IPv4) or colon hex (IPv6) format.] [A value is required.]   |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| Repeat <b>Step 11-12</b> for each Network.  |   |  |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| <p>13.</p>  | <p><b>Active NOAMP VIP:</b></p> <p>Click the <b>“Logout”</b> link on the server GUI.</p>            |  <p>The screenshot shows a user interface element with the text 'ount guidadmin ▾   Log Out'.</p>   |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b>  |   |  |       |       |             |              |   |   |          |                     |   |             |                      |   |         |                      |   |              |                      |  |



## 8.11 Configure Services on Signaling Network

This procedure configures ComAgent communication between NOAMP and MP to use Signaling Network. **ComAgent Service is required to be configured on XSI Network.** This procedure also configures dual path HA heartbeat to use the XSI network.

**Requirements:**

- **Procedure 20:**

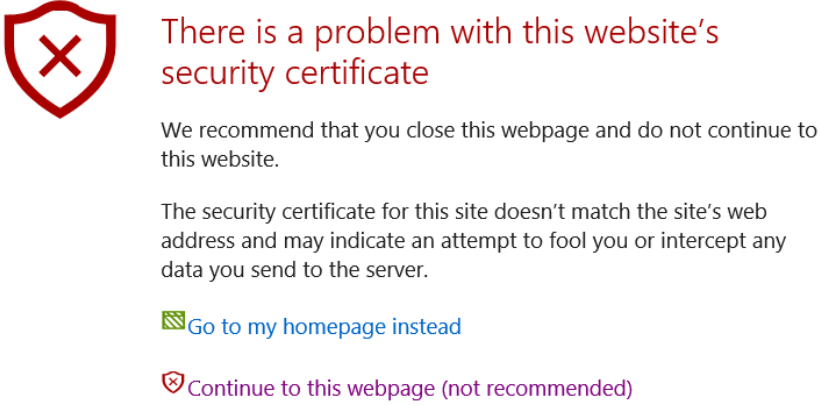

- **Configure MP Signaling Interfaces (All SOAM Sites)** has been completed.

**Oracle Communications User Data Repository Installation and Configuration Guide**

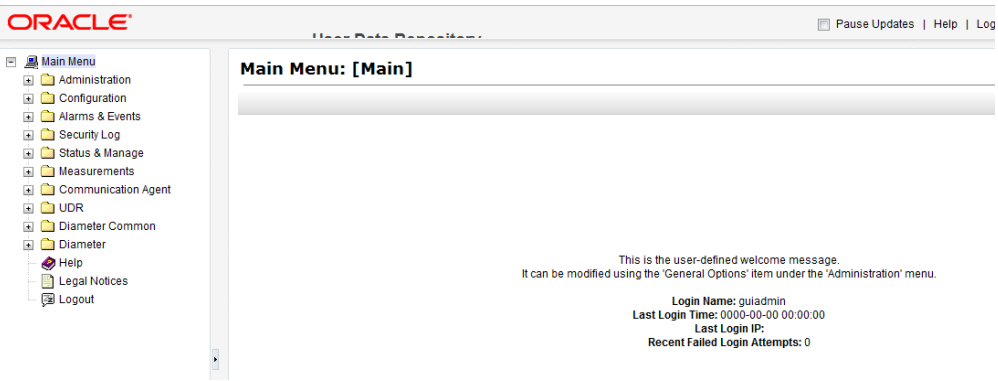
- Configure NOAMP Signaling Interfaces (All NOAM Sites) **Procedure 22: Configure NOAMP Signaling Interfaces (All NOAM Sites)** has been completed.
- **Procedure 23: Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity Systems)** has been completed.

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**Procedure 24: Configure Services on Signaling Network**

| Step   | Procedure   | Result   |
|--|---|--|
| <p>1.</p> <input type="checkbox"/>   | <p><b>Active NOAMP VIP</b></p> <p>Launch an approved web browser and connect to the <b>XMI Virtual IP Address(VIP)</b> of the <b>Active NOAMP site</b> using https://</p> <p><b>NOTE:</b> If presented with the “security certificate” warning screen shown to the right, choose the following option: <b>“Continue to this website (not recommended)”</b>.</p> |  <p>There is a problem with this website's security certificate</p> <p>We recommend that you close this webpage and do not continue to this website.</p> <p>The security certificate for this site doesn't match the site's web address and may indicate an attempt to fool you or intercept any data you send to the server.</p> <p><a href="#">Go to my homepage instead</a></p> <p><a href="#">Continue to this webpage (not recommended)</a></p>   |
| <p>2.</p> <input type="checkbox"/> | <p><b>Active NOAMP VIP</b></p> <p>The user should be presented the login screen shown on the right.</p> <p>Login to the GUI using the default user and password.</p>  |  <p><b>ORACLE®</b></p> <p><b>Oracle System Login</b> <span style="float: right;">Mon Nov 2 05:48:25 2015 EST</span></p> <div style="border: 1px solid gray; padding: 10px; width: fit-content; margin: 10px auto;"> <p style="text-align: center;"><b>Log In</b></p> <p style="text-align: center;">Enter your username and password to log in</p> <p style="text-align: center;">Session was logged out at 5:48:25 am.</p> <p>Username: <input type="text" value="guiadmin"/></p> <p>Password: <input type="password" value="••••••"/></p> <p><input type="checkbox"/> Change password</p> <p style="text-align: center;"><input type="button" value="Log In"/></p> </div> <p style="text-align: center;">Welcome to the Oracle System Login.</p> <p><small>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.</small></p> <p style="text-align: center;"><small>Oracle and Java are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.</small></p> |

Procedure 24: Configure Services on Signaling Network

| Step                                      | Procedure  | Result  |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
|---|--|---|------|------------------|------------------|-----|-----|-----|-------------|-----|-----|-----------|-------------|-------------|--------------|-----|-----|-----------------|-----|-----|----------------|-----|-----|----------|-----|-----|
| <p>3.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>The user should be presented the Main Menu as shown on the right.</p>  |   |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>Active NOAMP VIP</b></p> <p>Select...</p> <p><b>Main Menu</b><br/> <b>→ Configuration</b><br/> <b>→ Networking</b><br/> <b>→ Services</b></p> <p>...as shown on the right.</p> | <p><b>Main Menu: Configuration -&gt; Networking -&gt; Services</b></p> <table border="1"> <thead> <tr> <th>Name</th> <th>Intra-NE Network</th> <th>Inter-NE Network</th> </tr> </thead> <tbody> <tr> <td>OAM</td> <td>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   |      |                  |                  |     |     |     |             |     |     |           |             |             |              |     |     |                 |     |     |                |     |     |          |     |     |

5.

**NOAMP Server A:**

1) Set two services values as shown on the right.

Inter-NE  
**HA\_Secondary → XSI1**  
 Inter-NE  
**ComAgent → XSI1**

2) Select the “Apply” dialogue button.

3) Select the “OK” dialogue button in the popup window.

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

**Services**

| 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 ▼            |

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

OK Cancel

NOAMP and MP Servers need to be restarted.

**Note:**

**For Topology 1 and Topology 3**, either of the following configurations can be used for ComAgent service :

Intra-NE Network : Inter-NE Network

IMI : XSI1

XSI1 : XSI1

**For Topology 4**, the following configuration should be used for ComAgent service :

Intra-NE Network : Inter-NE Network

XSI1 : XSI1

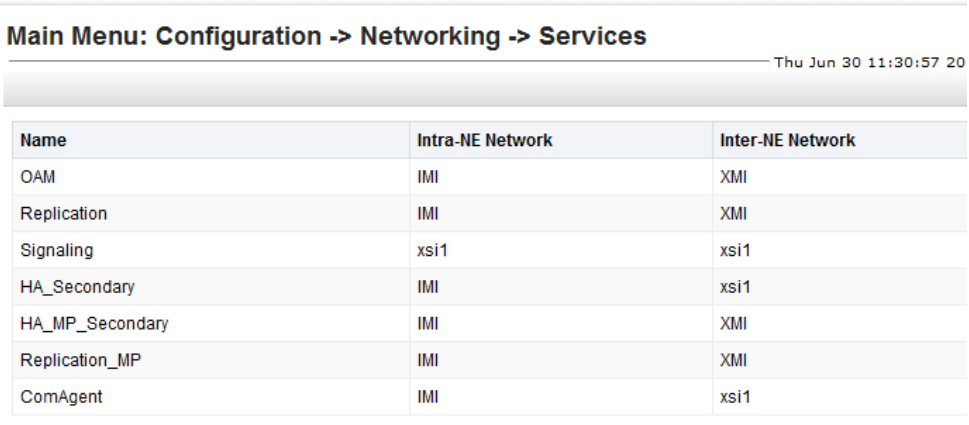
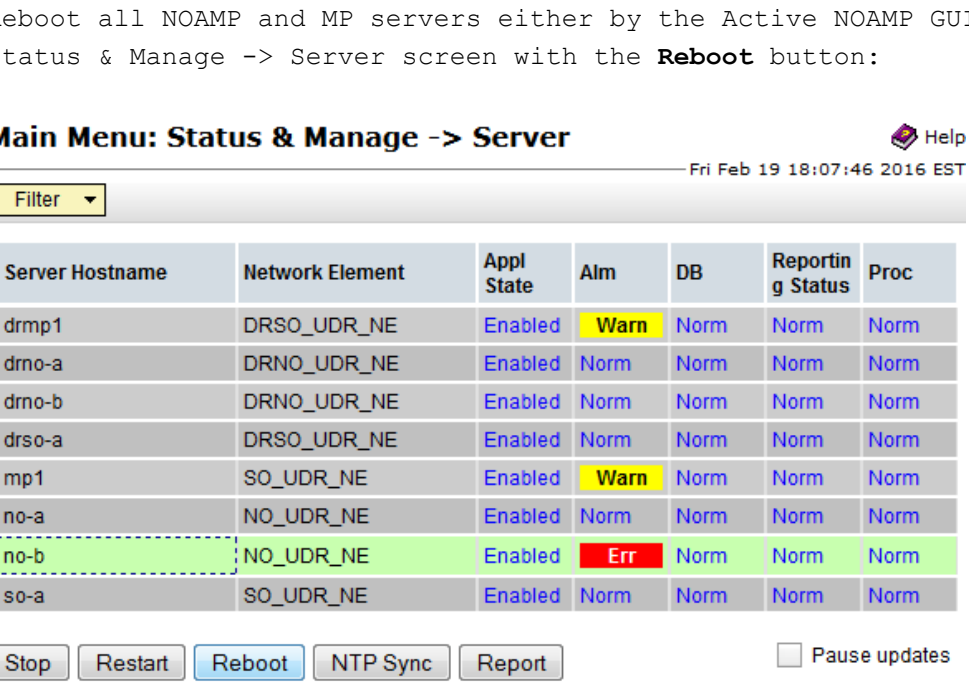
**For Topology 7**, either of the following configurations can be used for ComAgent service:

Intra-NE Network : Inter-NE Network

IMI : XSI1

XSI1 : XSI1

Procedure 24: Configure Services on Signaling Network

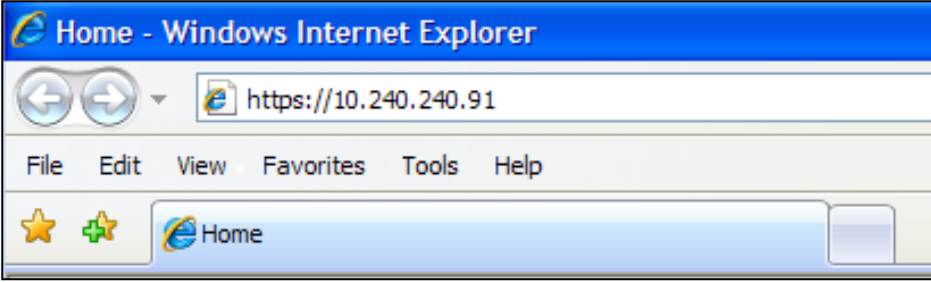
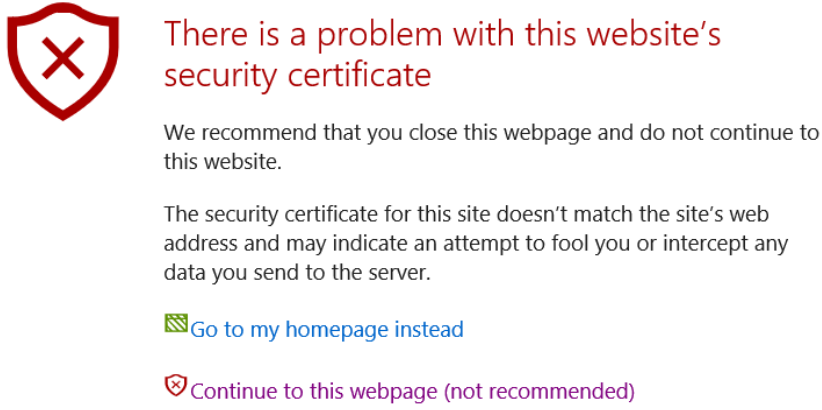

| Step  | Procedure  | Result   |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
|---|--|--|-----------------|------------------|------------------|------|-----|------------------|-------------|-------|-------------|-----------|------|------|--------------|------|--------|-----------------|---------|------|----------------|------|------|----------|-------------|---------|------|------|------|------|--------|-------------|---------|------|------|------|------|-----|-----------|---------|------|------|------|------|------|-----------|---------|------|------|------|------|------|-----------|---------|-----|------|------|------|------|-----------|---------|------|------|------|------|
| <p>6.</p> <p><input type="checkbox"/></p>       | <p><b>Active NOAMP VIP</b></p> <p>The user will be presented with the “<b>Services</b>” configuration screen as shown on the right</p> |  <p><b>Main Menu: Configuration -&gt; Networking -&gt; Services</b> Thu Jun 30 11:30:57 20</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>xsi1</td> <td>xsi1</td> </tr> <tr> <td>HA_Secondary</td> <td>IMI</td> <td>xsi1</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>xsi1</td> </tr> </tbody> </table>   | Name            | Intra-NE Network | Inter-NE Network | OAM  | IMI | XMI              | Replication | IMI   | XMI         | Signaling | xsi1 | xsi1 | HA_Secondary | IMI  | xsi1   | HA_MP_Secondary | IMI     | XMI  | Replication_MP | IMI  | XMI  | ComAgent | IMI         | xsi1    |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| Name  | Intra-NE Network   | Inter-NE Network   |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| OAM   | IMI  | XMI  |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| Replication                                     | IMI  | XMI  |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| Signaling                                       | xsi1   | xsi1   |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| HA_Secondary                                    | IMI  | xsi1   |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| HA_MP_Secondary                                 | IMI  | XMI  |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| Replication_MP                                  | IMI  | XMI  |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| ComAgent  | IMI  | xsi1   |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| <p>7.</p> <p><input type="checkbox"/></p>       | <p><b>Reboot all NOAMP and MP Servers</b></p>  | <p>Reboot all NOAMP and MP servers either by the Active NOAMP GUI’s Status &amp; Manage -&gt; Server screen with the <b>Reboot</b> button:</p>  <p><b>Main Menu: Status &amp; Manage -&gt; Server</b> Help Fri Feb 19 18:07:46 2016 EST</p> <table border="1"> <thead> <tr> <th>Server Hostname</th> <th>Network Element</th> <th>Appl State</th> <th>Alm</th> <th>DB</th> <th>Reporting Status</th> <th>Proc</th> </tr> </thead> <tbody> <tr> <td>drmp1</td> <td>DRSO_UDR_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>drno-a</td> <td>DRNO_UDR_NE</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>drno-b</td> <td>DRNO_UDR_NE</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>drso-a</td> <td>DRSO_UDR_NE</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>mp1</td> <td>SO_UDR_NE</td> <td>Enabled</td> <td>Warn</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>no-a</td> <td>NO_UDR_NE</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>no-b</td> <td>NO_UDR_NE</td> <td>Enabled</td> <td>Err</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> <tr> <td>so-a</td> <td>SO_UDR_NE</td> <td>Enabled</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> <td>Norm</td> </tr> </tbody> </table> <p>Stop Restart <b>Reboot</b> NTP Sync Report <input type="checkbox"/> Pause updates</p> <p>Or on the terminal of each server with the reboot command:</p> <pre>\$ sudo reboot</pre> <p>Note: This should be executed on all NOAMPs and MPs.</p> | Server Hostname | Network Element  | Appl State       | Alm  | DB  | Reporting Status | Proc        | drmp1 | DRSO_UDR_NE | Enabled   | Warn | Norm | Norm         | Norm | drno-a | DRNO_UDR_NE     | Enabled | Norm | Norm           | Norm | Norm | drno-b   | DRNO_UDR_NE | Enabled | Norm | Norm | Norm | Norm | drso-a | DRSO_UDR_NE | Enabled | Norm | Norm | Norm | Norm | mp1 | SO_UDR_NE | Enabled | Warn | Norm | Norm | Norm | no-a | NO_UDR_NE | Enabled | Norm | Norm | Norm | Norm | no-b | NO_UDR_NE | Enabled | Err | Norm | Norm | Norm | so-a | SO_UDR_NE | Enabled | Norm | Norm | Norm | Norm |
| Server Hostname                                 | Network Element  | Appl State   | Alm             | DB               | Reporting Status | Proc |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| drmp1   | DRSO_UDR_NE  | Enabled  | Warn            | Norm             | Norm             | Norm |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| drno-a  | DRNO_UDR_NE  | Enabled  | Norm            | Norm             | Norm             | Norm |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| drno-b  | DRNO_UDR_NE  | Enabled  | Norm            | Norm             | Norm             | Norm |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| drso-a  | DRSO_UDR_NE  | Enabled  | Norm            | Norm             | Norm             | Norm |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| mp1   | SO_UDR_NE  | Enabled  | Warn            | Norm             | Norm             | Norm |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| no-a  | NO_UDR_NE  | Enabled  | Norm            | Norm             | Norm             | Norm |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| no-b  | NO_UDR_NE  | Enabled  | Err             | Norm             | Norm             | Norm |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| so-a  | SO_UDR_NE  | Enabled  | Norm            | Norm             | Norm             | Norm |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |                 |                  |                  |      |     |                  |             |       |             |           |      |      |              |      |        |                 |         |      |                |      |      |          |             |         |      |      |      |      |        |             |         |      |      |      |      |     |           |         |      |      |      |      |      |           |         |      |      |      |      |      |           |         |     |      |      |      |      |           |         |      |      |      |      |

## 9. APPENDIX

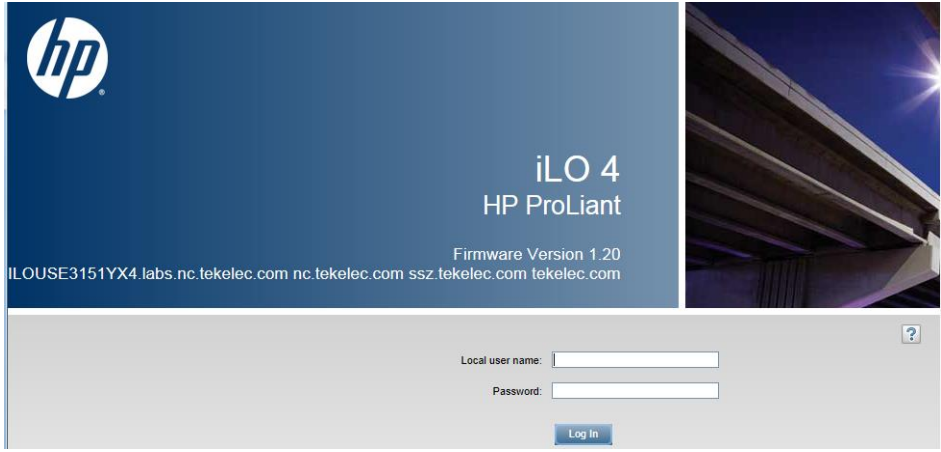
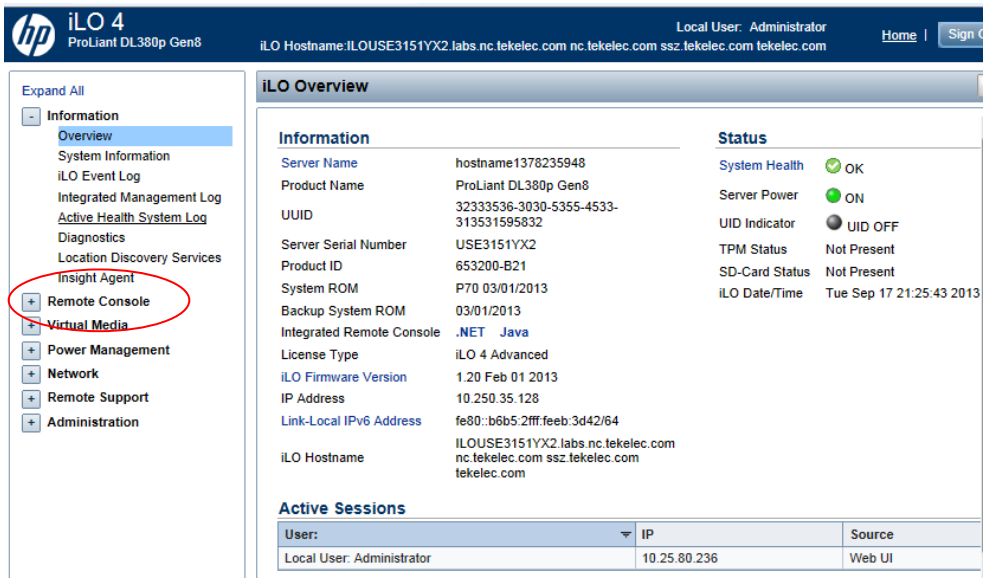
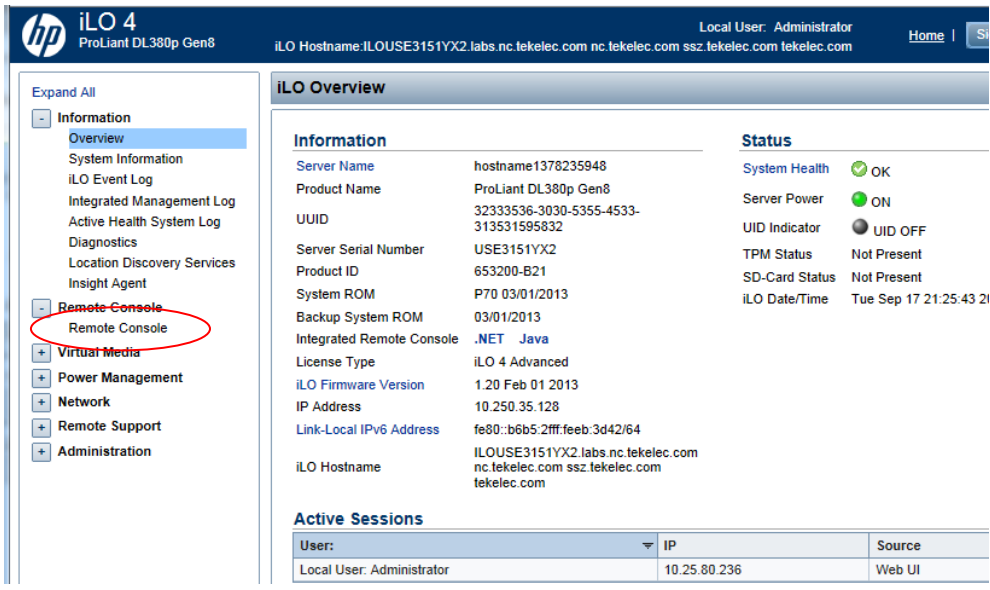
### Appendix A. Accessing the iLO VGA Redirection Window

#### A.1 Accessing the iLo VGA Redirection Window for HP

##### Appendix A.1: Accessing the iLO VGA Redirection Window for HP

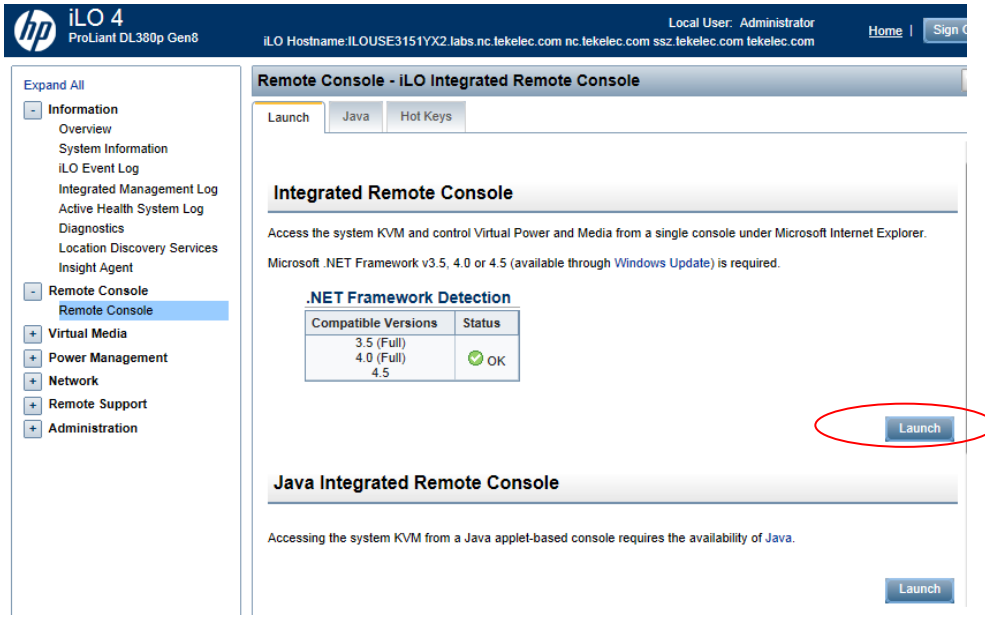
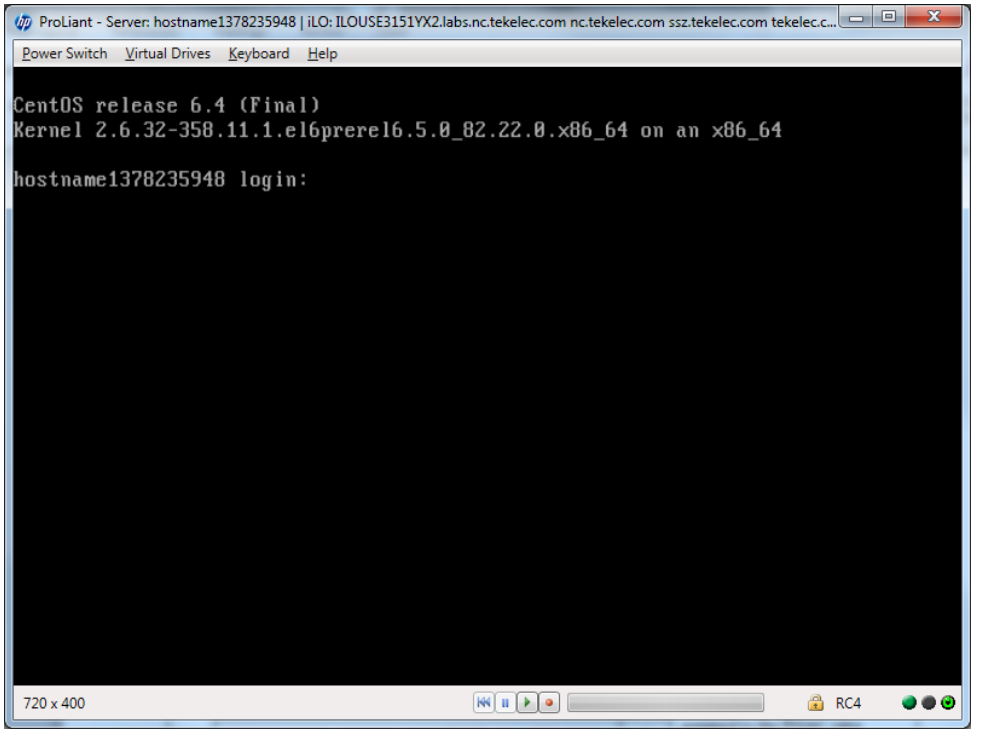
| Step                               | Procedure  | Result   |
|------------------------------------|--|--|
| <p>1.</p> <input type="checkbox"/> | <p>Launch an approved web browser and connect to the iLO interface</p> <p><b>NOTE:</b> Always use <i>https://</i> for iLO GUI access..</p> |    |
| <p>2.</p> <input type="checkbox"/> | <p>The web browser will display a warning message regarding the Security Certificate.</p>  |   |
| <p>3.</p> <input type="checkbox"/> | <p>Select the option to "Continue to this webpage (not recommended)"</p>   |  |

Appendix A.1: Accessing the iLO VGA Redirection Window for HP

| <p>4.</p> <p><input type="checkbox"/></p>             | <p>Login to the iLO console as "Administrator"</p>  |    |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
|---|---|--|-------------|--------|---------------------------------|--|------------------------------------|---|--|--|----------------------------------|-------------------------|------------------------|-----------------------------|----------------------------|---|-------------------------------|--|--------------------------------------|--|------------------------------|--|--|--|---------------------------|--|---|--|---|--|--|--|-----------------|--|--|-------|----|--------|---------------------------|--------------|--------|
| <p>5.</p> <p><input type="checkbox"/></p>             | <p>The admin GUI is displayed.</p> <p>Expand the "Remote Console" tab in the left panel of the GUI.</p> |  <p><b>iLO Overview</b></p> <table border="1"> <thead> <tr> <th>Information</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>Server Name: hostname1378235948</td> <td>System Health: <span style="color: green;">✔</span> OK</td> </tr> <tr> <td>Product Name: ProLiant DL380p Gen8</td> <td>Server Power: <span style="color: green;">●</span> ON</td> </tr> <tr> <td>UUID: 32333536-3030-5355-4533-313531595832</td> <td>UID Indicator: <span style="color: grey;">●</span> UID OFF</td> </tr> <tr> <td>Server Serial Number: USE3151YX2</td> <td>TPM Status: Not Present</td> </tr> <tr> <td>Product ID: 653200-B21</td> <td>SD-Card Status: Not Present</td> </tr> <tr> <td>System ROM: P70 03/01/2013</td> <td>iLO Date/Time: Tue Sep 17 21:25:43 2013</td> </tr> <tr> <td>Backup System ROM: 03/01/2013</td> <td></td> </tr> <tr> <td>Integrated Remote Console: .NET Java</td> <td></td> </tr> <tr> <td>License Type: iLO 4 Advanced</td> <td></td> </tr> <tr> <td>iLO Firmware Version: 1.20 Feb 01 2013</td> <td></td> </tr> <tr> <td>IP Address: 10.250.35.128</td> <td></td> </tr> <tr> <td>Link-Local IPv6 Address: fe80::b6b5:2fff:feeb:3d42/64</td> <td></td> </tr> <tr> <td>iLO Hostname: ILOUSE3151YX2.labs.nc.tekelec.com</td> <td></td> </tr> <tr> <td></td> <td>nc.tekelec.com ssz.tekelec.com tekelec.com</td> </tr> </tbody> </table><br><table border="1"> <thead> <tr> <th colspan="3">Active Sessions</th> </tr> <tr> <th>User:</th> <th>IP</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>Local User: Administrator</td> <td>10.25.80.236</td> <td>Web UI</td> </tr> </tbody> </table> | Information | Status | Server Name: hostname1378235948 | System Health: <span style="color: green;">✔</span> OK | Product Name: ProLiant DL380p Gen8 | Server Power: <span style="color: green;">●</span> ON | UUID: 32333536-3030-5355-4533-313531595832 | UID Indicator: <span style="color: grey;">●</span> UID OFF | Server Serial Number: USE3151YX2 | TPM Status: Not Present | Product ID: 653200-B21 | SD-Card Status: Not Present | System ROM: P70 03/01/2013 | iLO Date/Time: Tue Sep 17 21:25:43 2013 | Backup System ROM: 03/01/2013 |  | Integrated Remote Console: .NET Java |  | License Type: iLO 4 Advanced |  | iLO Firmware Version: 1.20 Feb 01 2013 |  | IP Address: 10.250.35.128 |  | Link-Local IPv6 Address: fe80::b6b5:2fff:feeb:3d42/64 |  | iLO Hostname: ILOUSE3151YX2.labs.nc.tekelec.com |  |  | nc.tekelec.com ssz.tekelec.com tekelec.com | Active Sessions |  |  | User: | IP | Source | Local User: Administrator | 10.25.80.236 | Web UI |
| Information   | Status  |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Server Name: hostname1378235948                       | System Health: <span style="color: green;">✔</span> OK  |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Product Name: ProLiant DL380p Gen8                    | Server Power: <span style="color: green;">●</span> ON   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| UUID: 32333536-3030-5355-4533-313531595832            | UID Indicator: <span style="color: grey;">●</span> UID OFF  |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Server Serial Number: USE3151YX2                      | TPM Status: Not Present   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Product ID: 653200-B21                                | SD-Card Status: Not Present   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| System ROM: P70 03/01/2013                            | iLO Date/Time: Tue Sep 17 21:25:43 2013   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Backup System ROM: 03/01/2013                         |   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Integrated Remote Console: .NET Java                  |   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| License Type: iLO 4 Advanced                          |   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| iLO Firmware Version: 1.20 Feb 01 2013                |   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| IP Address: 10.250.35.128                             |   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Link-Local IPv6 Address: fe80::b6b5:2fff:feeb:3d42/64 |   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| iLO Hostname: ILOUSE3151YX2.labs.nc.tekelec.com       |   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
|   | nc.tekelec.com ssz.tekelec.com tekelec.com  |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Active Sessions                                       |   |  |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| User:   | IP  | Source   |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| Local User: Administrator                             | 10.25.80.236  | Web UI   |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |
| <p>6.</p> <p><input type="checkbox"/></p>             | <p>The Remote Console tab is expanded</p> <p>Click on the "Remote Console" option</p>                   |    |             |        |                                 |  |                                    |   |  |  |                                  |                         |                        |                             |                            |   |                               |  |                                      |  |                              |  |  |  |                           |  |   |  |   |  |  |  |                 |  |  |       |    |        |                           |              |        |



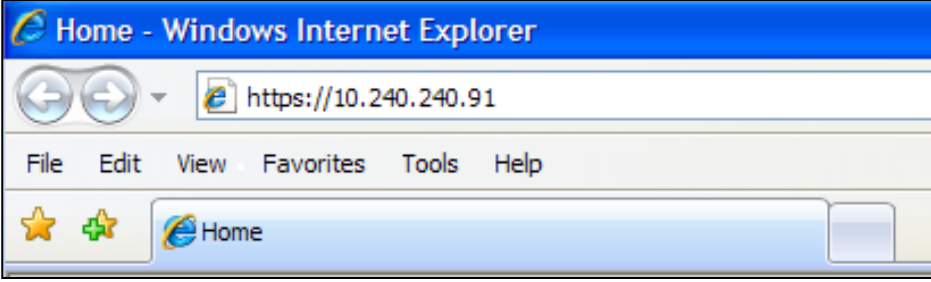
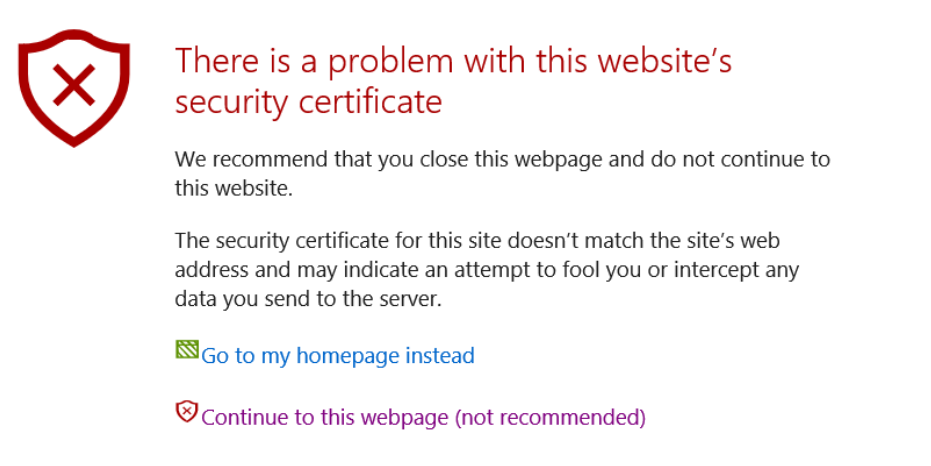
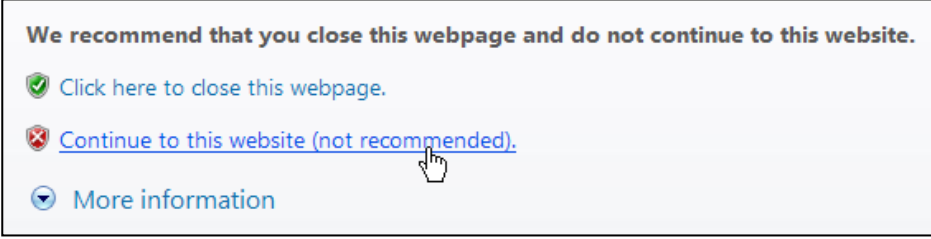
Appendix A.1: Accessing the iLO VGA Redirection Window for HP

|   |  |   |
|---|--|---|
| <p>7.</p> <p><input type="checkbox"/></p> | <p>The Remote Console GUI is displayed</p> <p>Click on the “<b>Launch</b>” button under “<b>Integrated Remote Console</b>”</p>                               |  <p>The screenshot shows the HP iLO 4 ProLiant DL380p Gen8 interface. The left sidebar contains a navigation menu with categories like Information, Remote Console, Virtual Media, Power Management, Network, Remote Support, and Administration. The 'Remote Console' category is expanded, showing sub-items: Remote Console, Virtual Media, Power Management, Network, Remote Support, and Administration. The 'Remote Console' sub-item is selected. The main content area is titled 'Remote Console - iLO Integrated Remote Console' and has tabs for 'Launch', 'Java', and 'Hot Keys'. The 'Launch' tab is active. Below the tabs, there is a section for 'Integrated Remote Console' with a description and a '.NET Framework Detection' table. The table shows compatible versions (3.5, 4.0, 4.5) and a status of 'OK'. A 'Launch' button is circled in red in the bottom right corner of the main content area.</p> |
| <p>8.</p> <p><input type="checkbox"/></p> | <p>The iLO Console window is displayed.</p> <p><b>NOTE:</b> <i>The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</i></p> |  <p>The screenshot shows a terminal window titled 'ProLiant - Server: hostname1378235948   iLO: ILOUSE3151YX2.labs.nc.tekelec.com nct.tekelec.com ssz.tekelec.com tekelec.c...'. The terminal displays the following text: 'CentOS release 6.4 (Final)', 'Kernel 2.6.32-358.11.1.el6prere16.5.0_82.22.0.x86_64 on an x86_64', and 'hostname1378235948 login:'. The terminal window has a title bar with 'Power Switch', 'Virtual Drives', 'Keyboard', and 'Help' buttons. The bottom status bar shows '720 x 400', 'RC4', and system icons.</p>  |

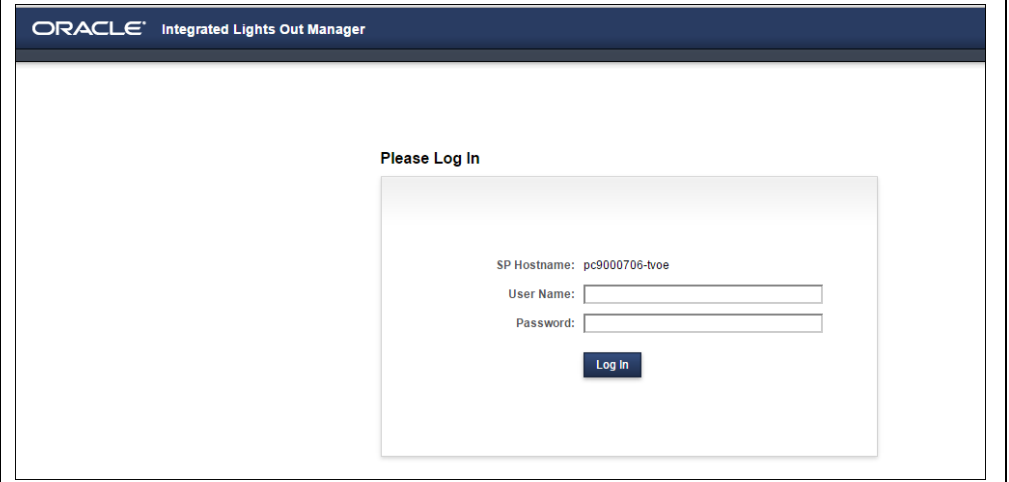
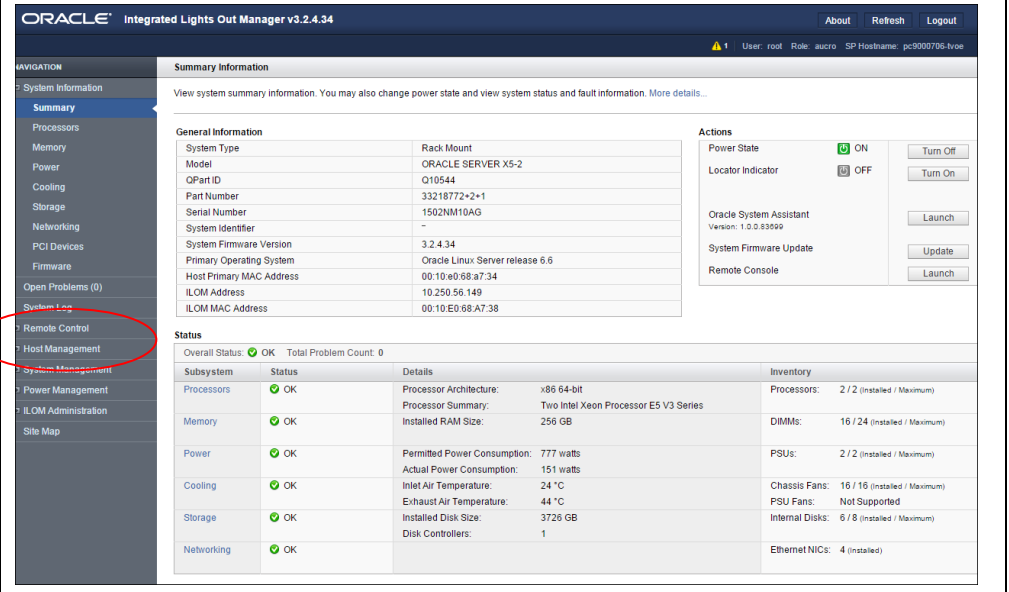
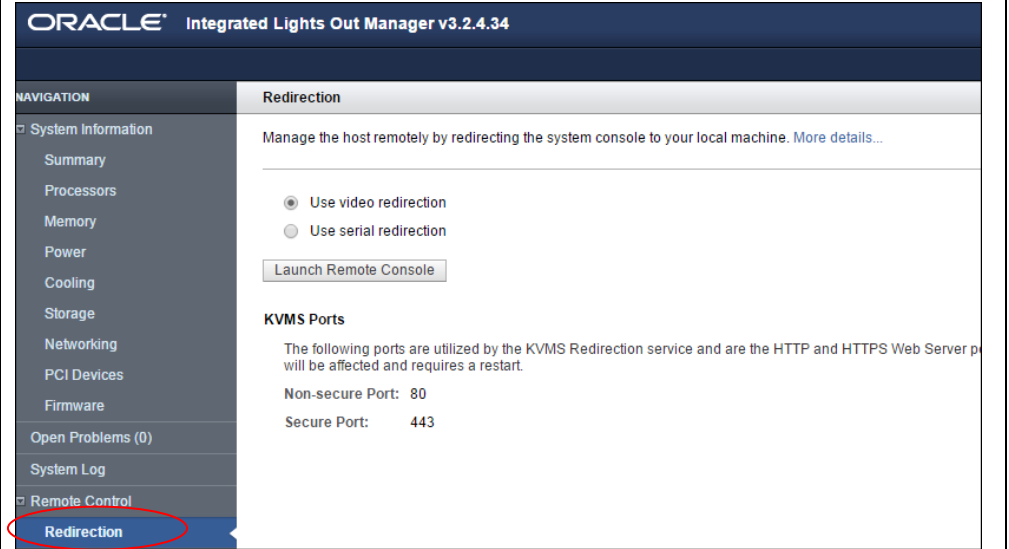
THIS PROCEDURE HAS BEEN COMPLETED

## A.2 Accessing the iLo VGA Redirection Window for Oracle RMS Servers

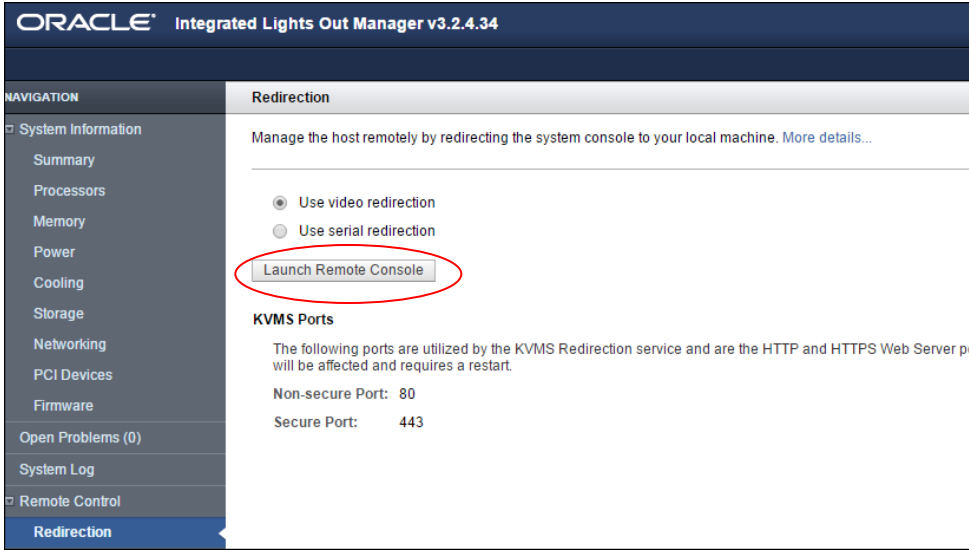
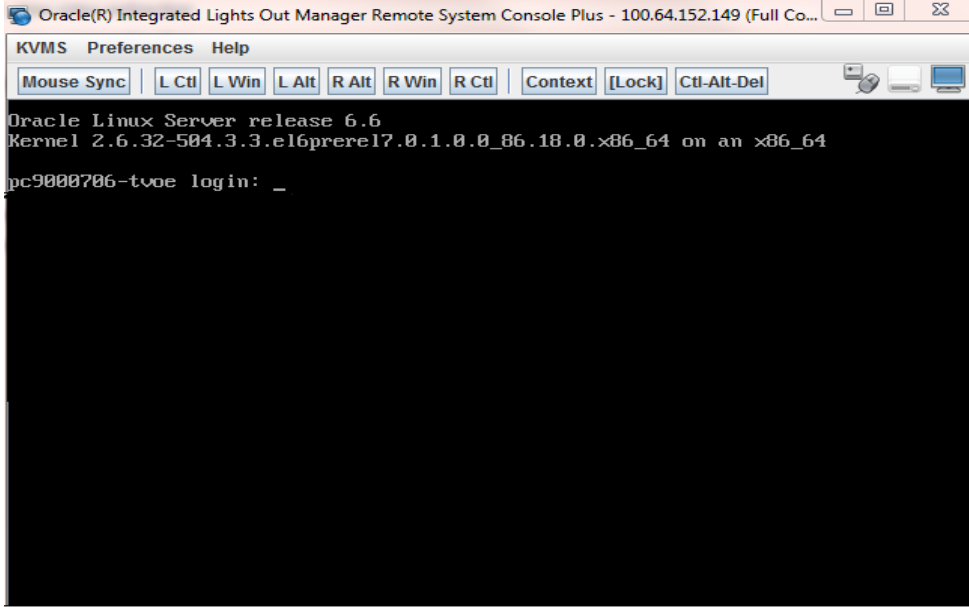
### Appendix A.2: Accessing the iLO VGA Redirection Window for Oracle RMS Servers

| Step                               | Procedure  | Result   |
|------------------------------------|--|--|
| <p>1.</p> <input type="checkbox"/> | <p>Launch an approved web browser and connect to the iLO interface</p> <p><b>NOTE:</b> Always use <i>https://</i> for iLO GUI access..</p> |    |
| <p>2.</p> <input type="checkbox"/> | <p>The web browser will display a warning message regarding the Security Certificate.</p>  |   |
| <p>3.</p> <input type="checkbox"/> | <p>Select the option to "Continue to the website (not recommended)"</p>  |  |

Appendix A.2: Accessing the iLO VGA Redirection Window for Oracle RMS Servers

|   |  |  |
|---|--|--|
| <p>4.</p> <p><input type="checkbox"/></p> | <p>Login to the iLO console as "Administrator"</p>   |    |
| <p>5.</p> <p><input type="checkbox"/></p> | <p>The admin GUI is displayed.</p> <p>Expand the "Remote Control" tab in the left panel of the GUI.</p>  |   |
| <p>6.</p> <p><input type="checkbox"/></p> | <p>The Remote Control tab is expanded</p> <p>Click on the "Redirection" option</p> <p>Verify "Use Video redirection" radio button is selected.</p> |  |

Appendix A.2: Accessing the iLO VGA Redirection Window for Oracle RMS Servers

|   |   |   |
|---|---|---|
| <p>7.</p> <p><input type="checkbox"/></p>       | <p>The Remote Control GUI is displayed</p> <p>Click on the “<b>Launch Remote Console</b>” button</p> <p><b>** Note:</b> Some security pop-up windows may appear – accept them to continue with opening the console.</p> |   |
| <p>8.</p> <p><input type="checkbox"/></p>       | <p>The iLO Console window is displayed.</p> <p><b>NOTE:</b> <i>The console window resembles an MS-DOS window but DOES NOT have a scroll-back buffer.</i></p>  |  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |   |   |

### A.3 Accessing the iLo Console for Oracle RMS Servers

#### Appendix A.3: Accessing the iLO Console for Oracle RMS Servers

| Step   | Procedure   | Result  |
|--|---|---|
| <p>1.</p> <input type="checkbox"/> | <p>Login to the Server ILO console</p> <p><b>NOTE:</b> Output similar to that shown on the right will appear.</p> | <p>Login to server using iLO IP address:<br/> <b>login as: root</b><br/> <b>Password:xxxxxxxx</b></p> <p>Oracle(R) Integrated Lights Out Manager<br/> Version 3.2.4.10 r94551<br/> Copyright (c) 2014, Oracle and/or its affiliates. All rights reserved.<br/> <b>Hostname: pc9000705-tvoe</b><br/> -&gt;</p>   |
| <p>2.</p> <input type="checkbox"/> | <p>CD to console directory</p>  | <p>-&gt;<b>cd HOST/console</b><br/> /HOST/console</p>   |
| <p>3.</p> <input type="checkbox"/> | <p>Start the /HOST/console</p> <p><b>NOTE:</b> Output similar to that shown on the right will appear.</p>         | <p>-&gt;<b>start</b><br/> Are you sure you want to start /HOST/console (y/n)? <b>y</b><br/> Serial console started. To stop, type ESC (<br/> <b>Hit enter key</b><br/> Oracle Linux Server release 6.6<br/> Kernel 2.6.32-504.1.3.el6prere17.0.1.0.0_86.16.0.x86_64 on an<br/> x86_64</p> <p><b>hostnameb2b8de74dc20 login: admusr</b><br/> <b>Password:xxxxxxxx</b><br/> Last login: Thu May 7 13:30:24 on tty1<br/> [admusr@hostnameb2b8de74dc20 ~]\$</p> |

## Appendix B. Accessing the Oracle Communications User Data Repository GUI

The user can now launch an approved web browser on this laptop and connect to [https://<XMI\\_IP\\_Address\\_for\\_NO\\_A>](https://<XMI_IP_Address_for_NO_A>) to access the Oracle Communications User Data Repository GUI using a temporary IP address.

### B.1 Creating Temporary External XMI IP Address

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

#### Appendix B.1: Creating Temporary External XMI IP Address

| Step                                     | In this procedure you will configure a temporary external XMI IP Address for NOAMP Server A for the 1 <sup>st</sup> NOAMP site. The user will use this IP Address in a web browser to access the GUI to configure the first Oracle Communications User Data Repository server. |  |
|--|--|--|
| 1.<br><input type="checkbox"/>           | Log onto the Server ILO as indicated in <b>Appendix A.1</b><br><br><b>NOTE:</b> Output similar to that shown on the right will appear.   | CentOS release 5.6 (Final)<br>Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64<br><br>hostname1260476221 login: <b>root</b><br>Password: <b>&lt;root_password&gt;</b>          |
| 2.<br><input type="checkbox"/>           | <b>Server ILO:</b><br><br>Add XMI VLAN to the first server (NOAMP-A)   | <b>#netAdm add --device=bond0.&lt;xmi_vlan&gt;--onboot=yes --netmask=&lt;XMI_NETMASK&gt; --address=&lt;XMI_IP_Address_for_NOAMP_A&gt;</b><br><br>Interface bond0.# added                 |
| 3.<br><input type="checkbox"/>           | <b>Server ILO:</b><br><br>Add route to the default gateway for the first site  | <b># netAdm add --device=bond0.&lt;xmi_vlan&gt;--route=default --gateway=&lt;XMI_IP_Address_for_default_gateway&gt;</b><br><br>Route to bond0.# added                                    |
| 4.<br><input type="checkbox"/>           | <b>Server ILO:</b><br><br>Restart the network on the server  | Restart the network by running the following:<br><br><b>#service network restart</b>   |
| 5.<br><input type="checkbox"/>           | <b>Server ILO:</b><br><br>Ping the default gateway to ensure connectivity.   | <b>[root@hostname1260476221 ~]#ping &lt;XMI_IP_Address_for_default_gateway&gt;</b><br><b>[root@hostname1260476221 ~]#</b>  |
| 6.<br><input type="checkbox"/>           | <b>Server ILO</b><br><br>Log off the ILO   | <b>[root@hostname1260476221 ~]#exit</b><br><br>CentOS release 5.6 (Final)<br>Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64<br><br><b>[root@hostname1260476221 ~] login:</b> |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |  |  |

## B.2 Creating Temporary External XMI IP Address without Interface Bonding

**Note:** This section presents a recommendation to accommodate lab environments that, due to equipment constraint, do not have the support of switches capable of providing bonded interfaces. **This configuration is not meant or implied to be an officially supported topology for Oracle Communications User Data Repository deployments.**

**Note:** Interconnects should conform to Section 8 of reference [4].

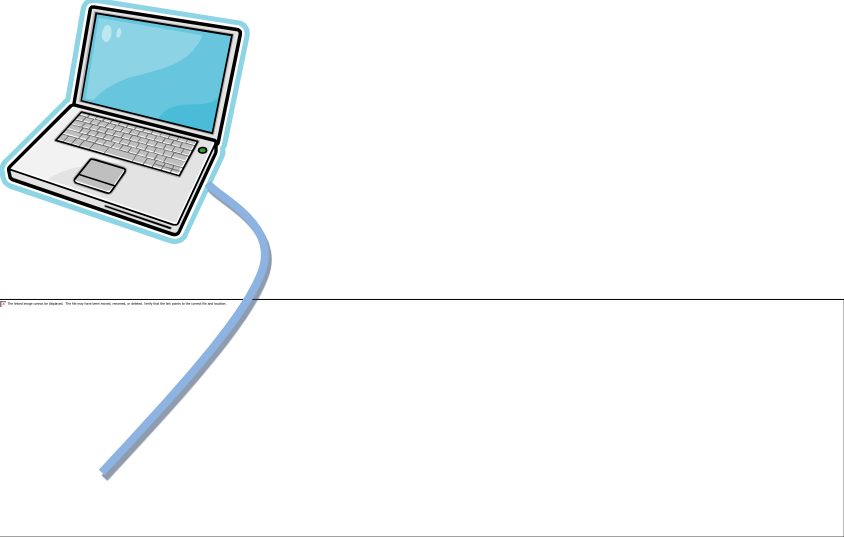
### Appendix B.2: Creating Temporary External XMI IP Address without Interface Bonding

| Step  | In this procedure you will configure a temporary external XMI IP Address for NOAMP Server A for the 1 <sup>st</sup> NOAMP site. The user will use this IP Address in a web browser to access the GUI to configure the first server. |   |
|---|---|---|
| <p>1.</p> <input type="checkbox"/>              | <p>Log onto the Server A ILO as indicated in <b>Appendix A.1</b>.</p> <p><b>NOTE:</b> Output similar to that shown on the right will appear.</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: root Password: &lt;root_password&gt;</pre>  |
| <p>2.</p> <input type="checkbox"/>              | <p><b>Server ILO:</b></p> <p>Add XMI IP address to the first server (NOAMP-A) and have it use interface eth01</p>   | <pre>[root@hostname1260476221 ~]#netAdm set --device=eth01 --onboot=yes --netmask=&lt;XMI_NETMASK&gt; --address=&lt;XMI_IP_Address_for_NOAMP_A&gt; Interface eth01 updated [root@hostname1260476221 ~]#</pre> |
| <p>3.</p> <input type="checkbox"/>              | <p><b>Server ILO:</b></p> <p>Add route to the default gateway for the first site</p>  | <pre>[root@hostname1260476221 ~]#netAdm add --device=eth01 --route=default --gateway=&lt;XMI_IP_Address_for_default_gateway&gt; Route to eth01 added [root@hostname1260476221 ~]#</pre>                       |
| <p>4.</p> <input type="checkbox"/>              | <p><b>Server ILO:</b></p> <p>Restart the network on the server</p>  | <p>Restart the network by running the following:</p> <pre>#service network restart</pre>  |
| <p>5.</p> <input type="checkbox"/>              | <p><b>Server ILO:</b></p> <p>Ping the default gateway to ensure connectivity.</p>   | <pre>[root@hostname1260476221 ~]#ping &lt;XMI_IP_Address_for_default_gateway&gt; [root@hostname1260476221 ~]#</pre>   |
| <p>6.</p> <input type="checkbox"/>              | <p><b>Server ILO</b></p> <p>Log off the ILO</p>   | <pre>[root@hostname1260476221 ~]#exit  CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prere15.0.0_72.22.0 on an x86_64  [root@hostname1260476221 ~] login:</pre>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |   |   |

### B.3 Establishing a Local Connection for Accessing the GUI (RMS only)

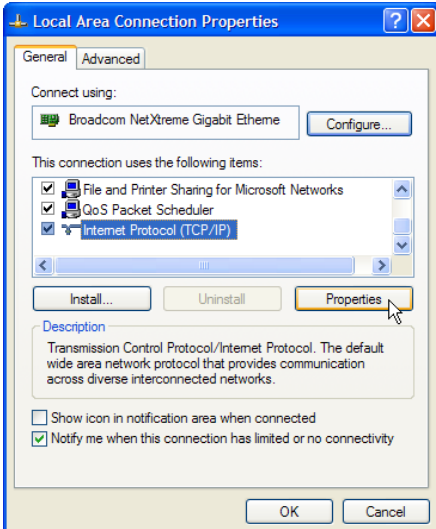
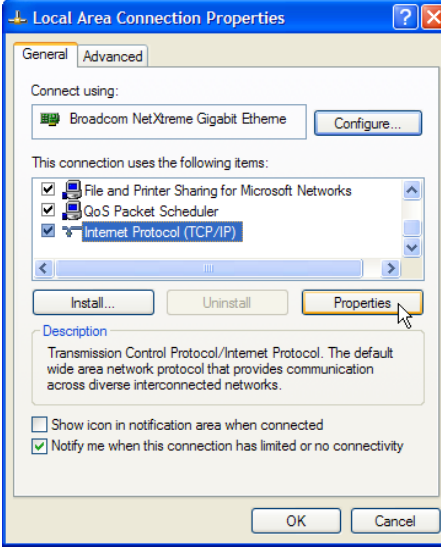
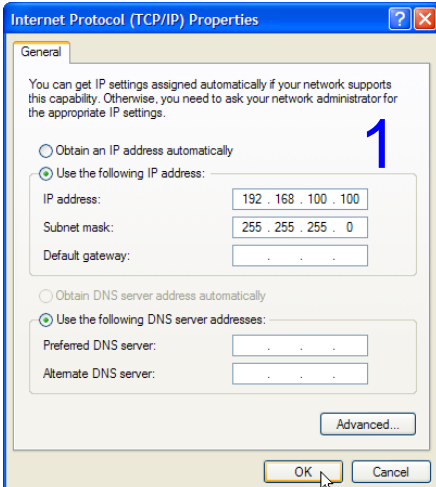
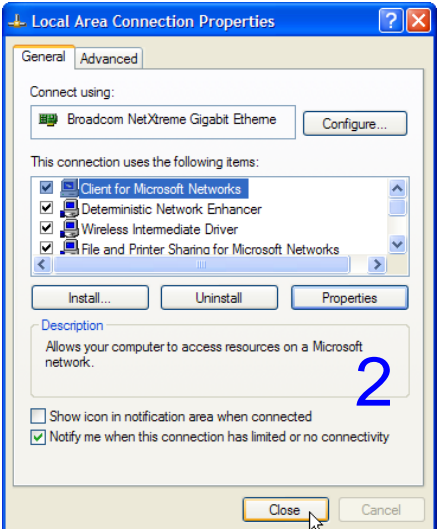
This procedure contains steps to connect a laptop to the rack mount server via a directly cabled Ethernet connection and setting the IP address of the laptop. This procedure enables the user to use the laptop for accessing the Oracle Communications User Data Repository GUI prior to configuring the first server.

#### Appendix B.3: Establishing a Local Connection for Accessing GUI (RMS only)

|                                |   |  |
|--------------------------------|---|--|
| <b>Step</b>                    | In this procedure you will configure a temporary external XMI IP Address for NOAMP Server A for the 1 <sup>st</sup> NOAMP site. The user will use this IP Address in a web browser to access the GUI to configure the first server. |  |
| 1.<br><input type="checkbox"/> | Access the server's console.  | Connect to the Oracle Communications User Data Repository server's console using one of the access methods described in <b>Section 2.1.2</b> .                   |
| 2.<br><input type="checkbox"/> | <p>1) Access the command prompt.</p> <p>2) Log into the server as the "root" user.</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: root Password: &lt;root_password&gt;</pre> |
| 3.<br><input type="checkbox"/> | Configure static IP 192.168.100.11 on the eth14 port of the server.   | <pre>[root@hostname1260476221 ~]# netAdm set --device=eth14 -- address=192.168.100.11 --netmask=255.255.255.0 --onboot=yes [root@hostname1260476221 ~]#</pre>    |
| 4.<br><input type="checkbox"/> | <p>1) Plug in one end of the Ethernet cable (straight-thru) into the back of server ETH14 (top left port).</p> <p>2) Plug the other end of the Ethernet cable into the laptop's Ethernet jack.</p>                                  |    |



Appendix B.3: Establishing a Local Connection for Accessing GUI (RMS only)

|   |   |   |   |
|---|---|---|---|
| <p>5.</p> <p><input type="checkbox"/></p>       | <p>Access the laptop network interface card's TCP/IP "Properties" screen.</p> <p><b>NOTE:</b> For this step follow the instruction specific to the laptop's OS (XP, Vista or Win 7).</p>  | <p><b>Windows XP</b></p> <ul style="list-style-type: none"> <li>Go to Control Panel</li> <li>Double-click on Network Connections</li> <li>Right-click the wired Ethernet Interface icon and select "Properties"</li> </ul> <p>Select "Internet Protocol (TCP/IP)" and select "Properties"</p>   | <p><b>Windows Vista / Win 7</b></p> <ul style="list-style-type: none"> <li>Go to Control Panel.</li> <li>Double-click on Network and Sharing Center</li> <li>Select Manage Network Connections (left menu)</li> <li>Right-click the wired Ethernet Interface icon and select "Properties"</li> </ul> <p>Select "Internet Protocol Version 4 (TCP/IPv4)"</p>  |
| <p>6.</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><b>Internet Protocol (TCP/IP) Properties</b></p> <p>Use the following IP address:</p> <p>IP address: 192 . 168 . 100 . 100</p> <p>Subnet mask: 255 . 255 . 255 . 0</p> <p>Default gateway: . . .</p> <p>Use the following DNS server addresses:</p> <p>Preferred DNS server: . . .</p> <p>Alternate DNS server: . . .</p> <p>Advanced...</p> <p>OK</p>  | <p><b>Local Area Connection Properties</b></p> <p>Client for Microsoft Networks</p> <p>Close</p>    |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |   |   |   |


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

## Appendix C. Mounting Media on HP Servers

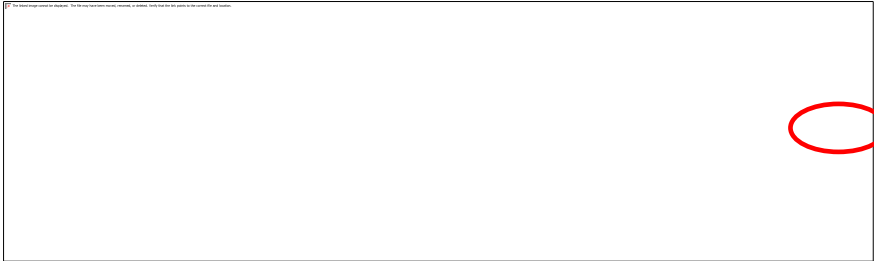
### C.1 Mounting Physical Media on HP Servers (RMS only)

This procedure contains steps to mount electronic and physical media on HP rack mount servers.

#### Appendix C.1: Mounting Physical Media on HP Rack Mount Servers

| Step                           | In this procedure you will mount media on HP rack mount servers, for ISO access or other file transfer.   |   |
|--------------------------------|---|---|
| 1.<br><input type="checkbox"/> | Access the server's console.  | Connect to the server's console using one of the access methods described in <b>Section 2.1.2</b> .   |
| 2.<br><input type="checkbox"/> | <p>1) Access the command prompt.</p> <p>2) Log into the server as the "root" user.</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: root Password: &lt;root_password&gt;</pre>                                |
| 3.<br><input type="checkbox"/> | <p><b>HP Server:</b></p> <p>Insert the USB flash drive containing the server configuration file into the USB port on the front panel of <b>HP Server</b>.</p>   |  <p style="text-align: center;"><b>Figure 6 -HP DL380 Front Panel: USB Port</b></p>                          |
| 4.<br><input type="checkbox"/> | <p><b>HP Server:</b></p> <p>Output similar to that shown on the right will appear as the USB flash drive is inserted into the <b>HP Server</b> front USB port.</p> <p>Press the <b>&lt;ENTER&gt;</b> key to return to the command prompt.</p> | <pre>[root@hostname1260476099 ~]# sd 3:0:0:0: [sdb] Assuming drive cache: write through sd 3:0:0:0: [sdb] Assuming drive cache: write through &lt;ENTER&gt;  [root@hostname1260476099 ~]#</pre> |
| 5.<br><input type="checkbox"/> | <p><b>HP Server:</b></p> <p>Verify that the USB flash drive's partition has been mounted by the OS: Search <b>df</b> for the device named in the previous step's output .</p>   | <pre>[root@hostname1260476099 ~]# df  grep sdb /dev/sdb1          2003076      82003068 1% /media/sdb1 [root@hostname1260476099 ~]#</pre>   |

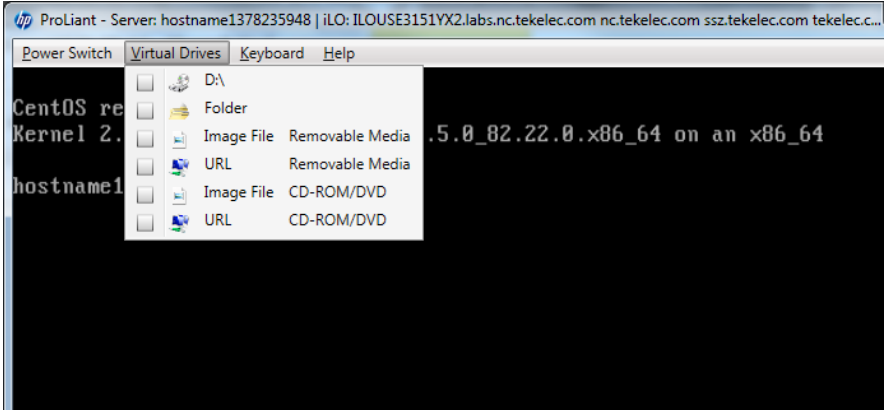
Appendix C.1: Mounting Physical Media on HP Rack Mount Servers

|   |   |   |
|---|---|---|
| <p>6.</p> <input type="checkbox"/>              | <p><b>HP Server:</b></p> <p>UDB media may be accessed via the path shown</p>  | <pre>[root@hostname1260476099 ~]# cd /media/sdb1</pre> <pre>[root@hostname1260476099 ~]#</pre>  |
| <p>7.</p> <input type="checkbox"/>              | <p><b>HP Server:</b></p> <p>When you are finished using the mounted drive, remove the USB flash drive from the USB port on the front panel of the server.</p> |  <p style="text-align: center;"><b>Figure 7 -HP DL380 Front Panel: USB Port</b></p> |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |   |   |

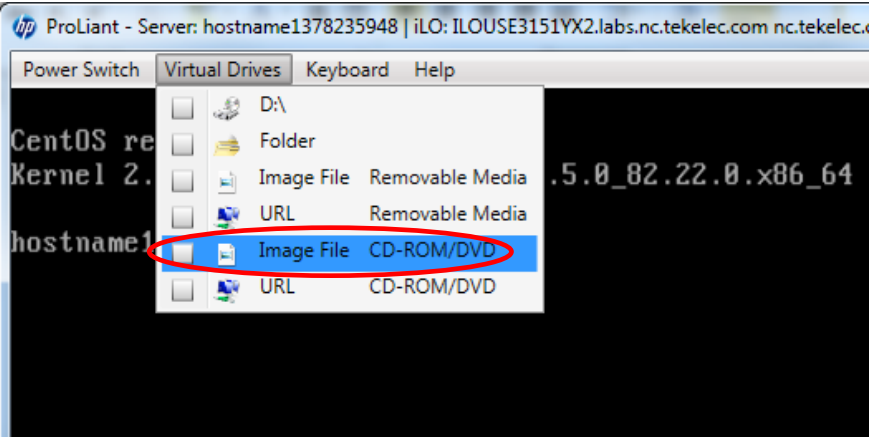
C.2 Mounting Virtual Media on HP Servers

This procedure contains steps to mount virtual media on HP rack mount servers via ILO.

Appendix C.2: Mounting Virtual Media on HP Rack Mount Servers

| Step                               | In this procedure you will mount media on HP rack mount servers via ILO, for ISO access or other file transfer. |  |
|------------------------------------|---|--|
| <p>1.</p> <input type="checkbox"/> | <p>Access the server's ILO VGA.</p>   | <p>Connect to the server's ILO VGA using the access method described in <b>Appendix A.1</b>.</p> |
| <p>2.</p> <input type="checkbox"/> | <p><b>ILO Remote Console:</b></p> <p>Select "<b>Virtual Drives</b>" from the top menu bar.</p>                  |              |

Appendix C.2: Mounting Virtual Media on HP Rack Mount Servers

|                                    |  |  |
|------------------------------------|--|--|
| <p>3.</p> <input type="checkbox"/> | <p><b>HP Server:</b></p> <p>Select from the menu options presented:</p> <p><b>Image File</b> to access files on your laptop client machine.</p> <p><b>URL</b> to access files on the network.</p> <p><b>Folder</b> to open a directory on your client machine.</p> <p><b>CD-ROM/DVD</b> to mount ISO type files.</p> <p><b>Removable Media</b> for other file types.</p> |  <p>Select the image(ISO) file...</p>  |
| <p>4.</p> <input type="checkbox"/> | <p><b>HP Server:</b></p> <p><b>Folder</b> mounting will cause device information to display to console.</p> <p><b>or</b></p> <p><b>CD-ROM/DVD</b> media may be accessed via the device shown by <b>getCDROM</b></p>  | <pre>[root@pc9000724-no-a ~]# sd 4:0:0:0: [sdel] Assuming drive sd 4:0:0:0: [sdel] Assuming drive cache: write through sd 4:0:0:0: [sdel] Assuming drive cache: write through</pre> <pre>[root@hostname1260476099 ~]# <b>getCDROM</b> Virtual_DVD-ROM sr0 /dev/sr0</pre> |

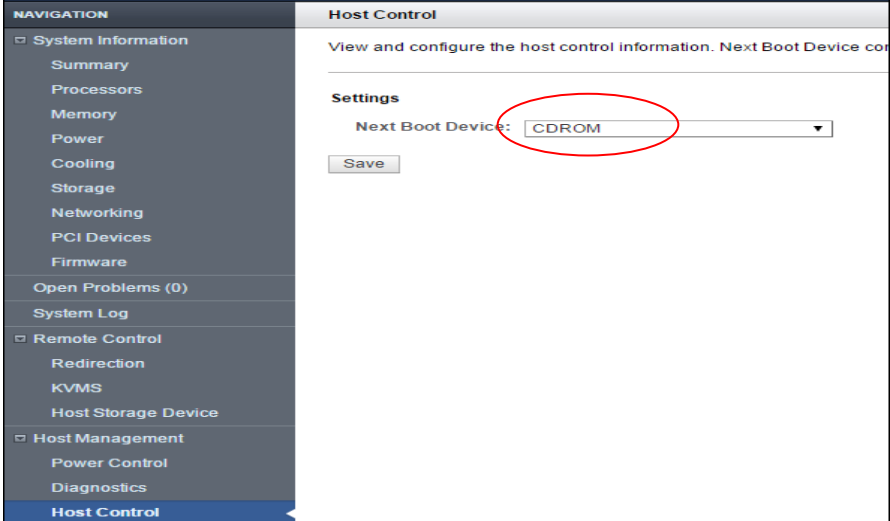
Appendix C.2: Mounting Virtual Media on HP Rack Mount Servers

|   |  |   |
|---|--|---|
| <p>5.</p> <input type="checkbox"/>              | <p><b>HP Server:</b></p> <p><b>Mount device to access its data</b></p> | <pre>[root@pc9000724-no-a ~]# sd 4:0:0:0: [sde] Assuming drive sd 4:0:0:0: [sde] Assuming drive cache: write through sd 4:0:0:0: [sde] Assuming drive cache: write through</pre> <p># <code>mount /dev/&lt;device_name&gt;/mnt/&lt;mount_name&gt;</code></p> <p>mount: block device /dev/sde is write-protected, mounting read-only</p> |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |   |

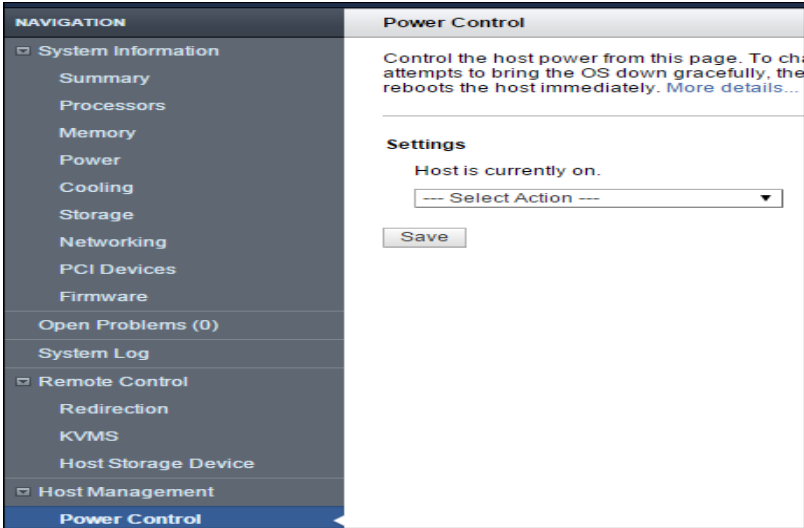
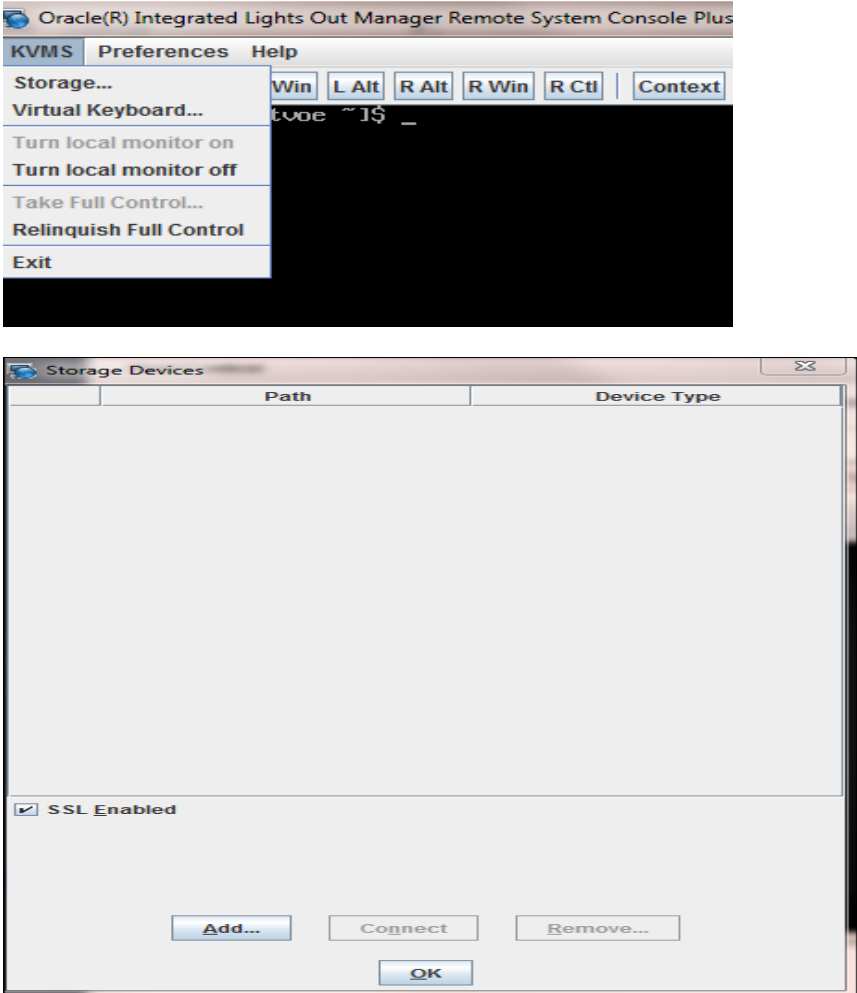
C.3 Mounting Virtual Media on Oracle RMS Servers

This procedure contains steps to mount virtual media on Oracle RMS servers via ILO.

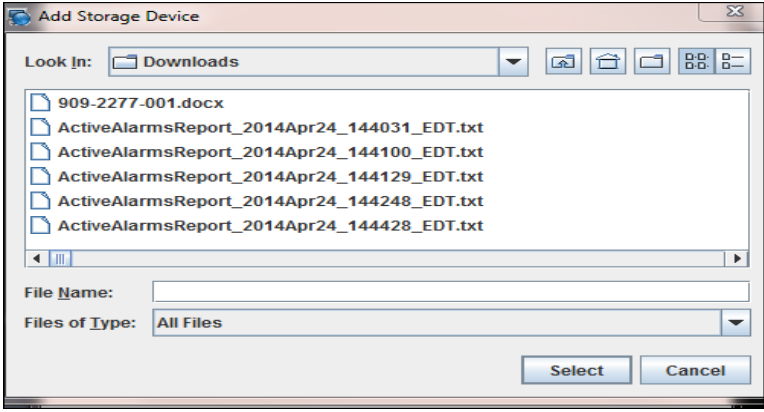
Appendix C.3: Mounting Virtual Media on Oracle RMS Servers

|                                    |   |  |
|------------------------------------|---|--|
| <p><b>Step</b></p>                 | <p>In this procedure you will mount media on Oracle RMS servers via ILO, for ISO access or other file transfer.</p>   |  |
| <p>1.</p> <input type="checkbox"/> | <p>Access the server's ILO VGA.</p>   | <p>Connect to the server's ILO VGA using the access method described in Appendix A.2:<br/>Accessing the iLo VGA Redirection Window for Oracle RMS Servers.</p> |
| <p>2.</p>                          | <p><b>ILO Admin GUI:</b></p> <p>Change the Next Boot Device</p> <p>Select "<b>Host Management/Host Control</b>"</p> <p>Select "<b>CDROM</b>" from "<b>Next Boot Device</b>" drop down box.</p> <p>Click "<b>Save</b>"</p> |    |

Appendix C.3: Mounting Virtual Media on Oracle RMS Servers

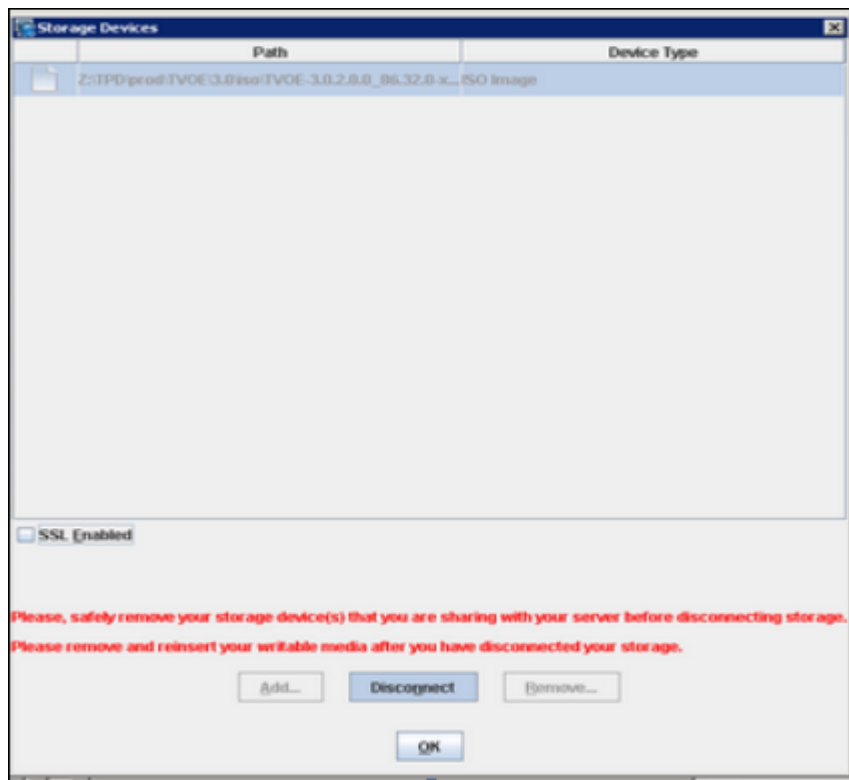
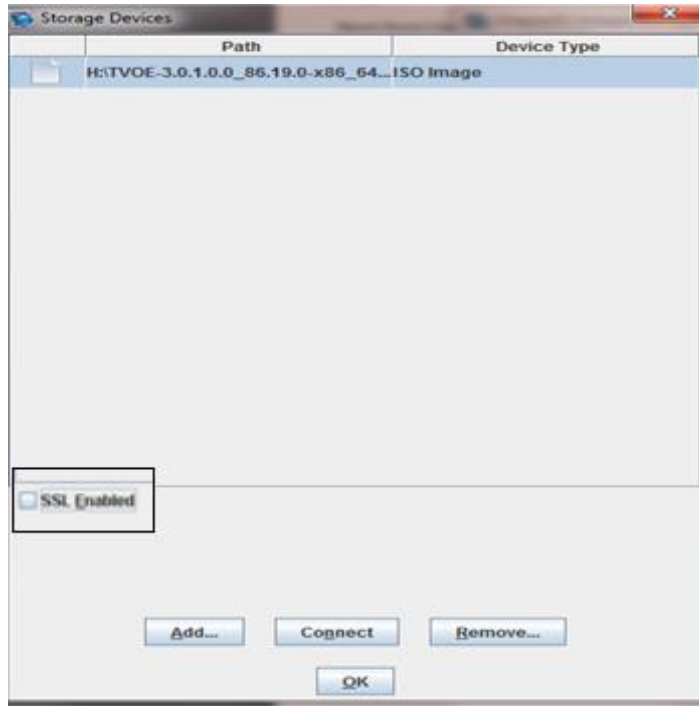
|   |  |   |
|---|--|---|
| <p>3.</p>                                 | <p><b>ILO Admin GUI:</b></p> <p>Go to <b>“Host Management/Power Control”</b></p> <p>Verify <b>“Host is currently on”</b></p> <p>Note: If it’s turned off, turn it back on.</p> |   |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p>Select <b>“KMVS/Storage”</b> from the top menu bar.</p> <p>Select <b>“Add”</b> button on next screen near bottom of the screen.</p>       |  |

Appendix C.3: Mounting Virtual Media on Oracle RMS Servers

|                                    |   |  |
|------------------------------------|---|--|
| <p>5.</p> <input type="checkbox"/> | <p><b>ILO Remote Console:</b></p> <p>Select desired <b>Image File</b> from files on your laptop/desktop client machine.</p> |  <p>The screenshot shows a Windows-style dialog box titled "Add Storage Device". The "Look In:" field is set to "Downloads". The file list contains the following items:</p> <ul style="list-style-type: none"><li>909-2277-001.docx</li><li>ActiveAlarmsReport_2014Apr24_144031_EDT.txt</li><li>ActiveAlarmsReport_2014Apr24_144100_EDT.txt</li><li>ActiveAlarmsReport_2014Apr24_144129_EDT.txt</li><li>ActiveAlarmsReport_2014Apr24_144248_EDT.txt</li><li>ActiveAlarmsReport_2014Apr24_144428_EDT.txt</li></ul> <p>At the bottom, there is a "File Name:" text box, a "Files of Type:" dropdown menu set to "All Files", and "Select" and "Cancel" buttons.</p> |
|------------------------------------|---|--|

Appendix C.3: Mounting Virtual Media on Oracle RMS Servers

6. ILO Remote Console:
1. Select/highlight the ISO file
  2. **Uncheck SSL Enabled** checkbox before connecting to the TVOE iso.
  3. Click **Connect**
  4. Click **OK**



**THIS PROCEDURE HAS BEEN COMPLETED**



## Appendix D. Hardware Setup

### D.1 BIOS Settings for HP Blade and Rack Mount Servers

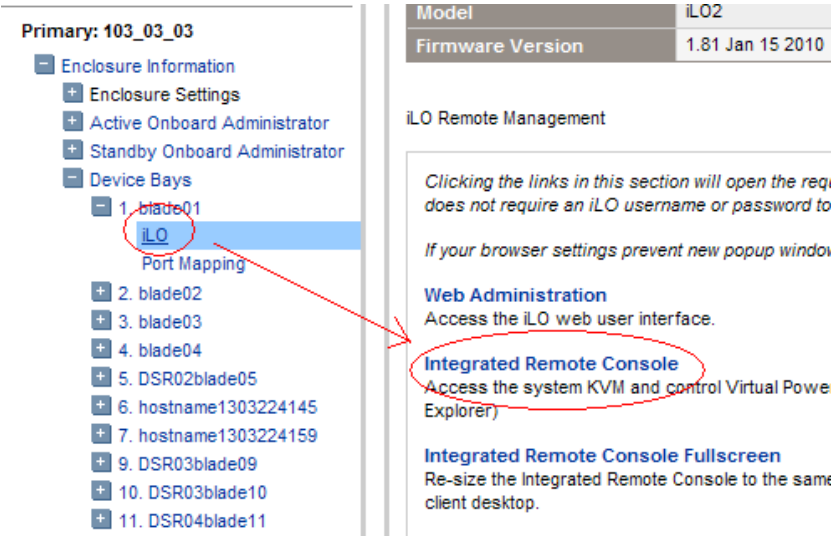
This procedure will configure HP BIOS settings for Blade and RMS.

**Needed material:**

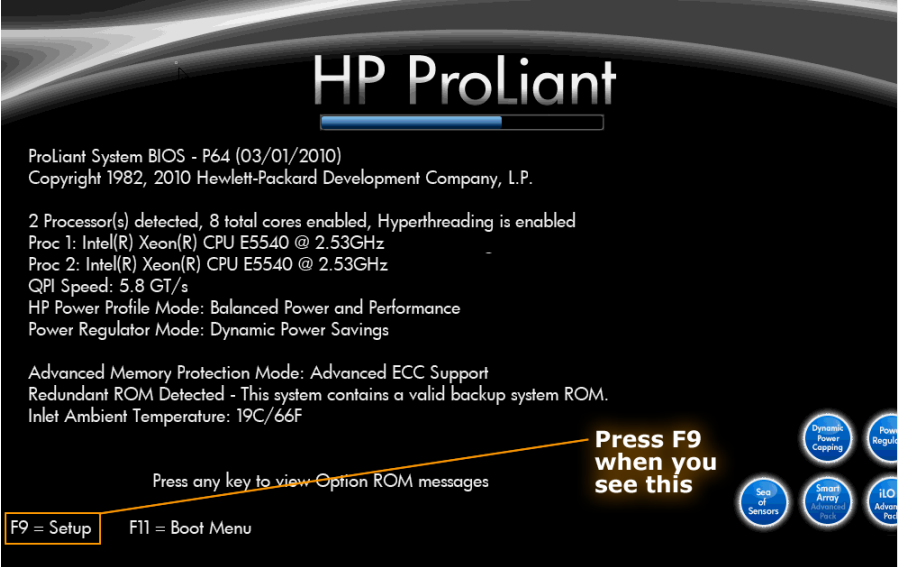
- Access to <http://docs.oracle.com> or a copy of reference [11]

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

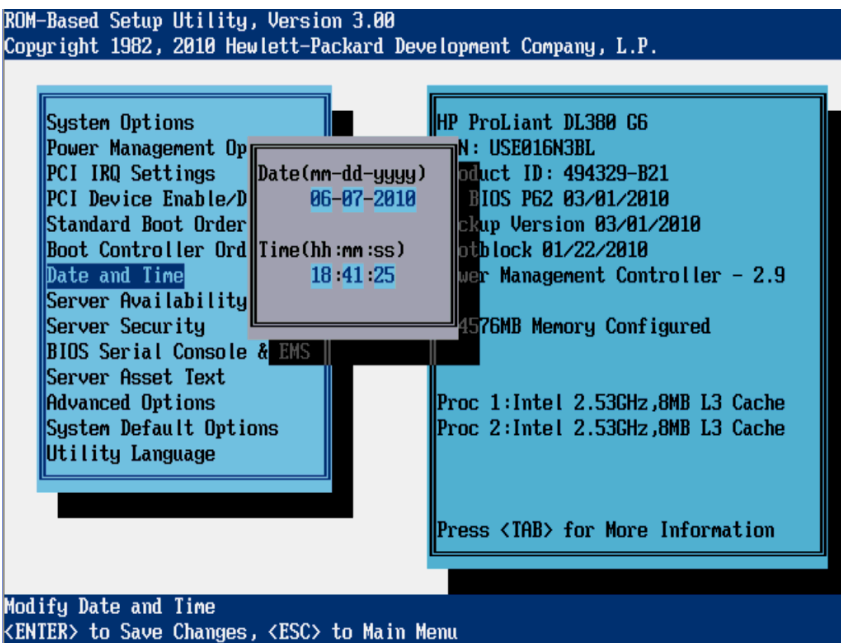
**Appendix D.1: BIOS Settings for HP Blade and Rack Mount Servers**

| Step   | In this procedure you will configure BIOS settings for HP hardware.  |  |
|--|--|--|
| <p>1.</p> <input type="checkbox"/> | <p>Access the HP server's console.</p>                               | <p>Connect to the server's console using one of the access methods described in <b>Section 2.1.2.</b></p>  |
| <p>2.</p> <input type="checkbox"/> | <p>Access the HP server's console according to its hardware type</p> | <p>For Rack Mount Servers (RMS), connect to the server's console using one of the access methods described in <b>Section 2.1.2.</b></p> <p>For Blade servers:</p> <ol style="list-style-type: none"> <li>1. Navigate to the IP address of the active OA. Login as an administrative user.</li> <li>2. Navigate to <b>Enclosure Information &gt; Device Bays &gt;&lt;Blade 1&gt;&gt; iLO</b></li> <li>3. Click on <b>Integrated Remote Console</b></li> </ol>  <p><b>Note:</b> This will launch the iLO interface for that blade. If this is the first time the iLO is being accessed, you will be prompted to install an add-on to your web browser, follow the on screen instructions to do so.</p> |

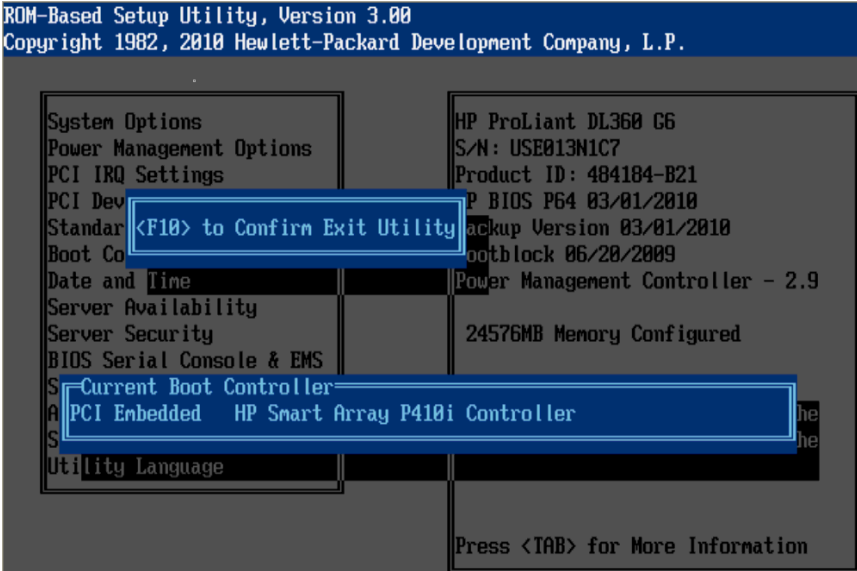
Appendix D.1: BIOS Settings for HP Blade and Rack Mount Servers

|                                    |                               |  |
|------------------------------------|-------------------------------|--|
| <p>3.</p> <input type="checkbox"/> | <p>Access the Server BIOS</p> | <p>Reboot the server.</p> <p><b>For Blade</b>, this can be achieved by selecting <b>Cold Boot</b> from under the Integrated Console's <b>Power Switch</b> menu.</p> <p><b>For RMS</b>, this can be achieved by pressing and holding the power button until the server turns off, then after approximately 5-10 seconds press the power button to enable power.</p> <p>As soon as you see <b>F9=Setup</b> in the lower left corner of the screen, press <b>[F9]</b> to access the BIOS setup screen. You may be required to press [F9] 2-3 times. The F9=Setup will change to F9 Pressed once it is accepted. See example below.</p>  <p><b>Expected Result:</b><br/>ROM-Based Setup Utility is accessed and the ROM-Based Setup Utility menu will be displayed.</p> |
|------------------------------------|-------------------------------|--|

Appendix D.1: BIOS Settings for HP Blade and Rack Mount Servers

|   |  |   |
|---|--|---|
| <p>4.</p> <p><input type="checkbox"/></p> | <p>Set Server CMOS Clock</p>                                       | <p>Scroll to <i>Date and Time</i> and press [ENTER]</p> <p>Set the date and time and press [ENTER].</p>  <p><b>Expected Result:</b><br/>Correct Time &amp; Date is set.</p>   |
| <p>5.</p> <p><input type="checkbox"/></p> | <p>Configure iLO serial port settings</p> <p><i>(RMS Only)</i></p> | <p>For RMS only, 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 <b>System Options</b> option and press [ENTER].</p> <p>Select <b>Serial Port Options</b> option and press [ENTER].</p> <p>Change <b>Embedded Serial Port</b> to <b>COM2</b> and press [ENTER].</p> <p>Change <b>Virtual Serial Port</b> to <b>COM1</b> and press [ENTER].</p> <p>Press &lt;ESC&gt; two times</p> |

Appendix D.1: BIOS Settings for HP Blade and Rack Mount Servers

|  |   |   |
|--|---|---|
| <p>6.<br/><input type="checkbox"/></p> | <p>Configure Power Profile settings</p>   | <p>The Power Profile on HP servers used in Oracle Communications User Data Repository need to be configured for optimum software performance on both RMS and blade hardware.</p> <p>Select <b>Power Management Options</b> option and press <b>[ENTER]</b>.</p> <p>Select <b>HP Power Profile</b> option and press <b>[ENTER]</b>.</p> <p>Change it to <b>Maximum Performance</b> and press <b>[ENTER]</b>.</p>   |
| <p>7.<br/><input type="checkbox"/></p> | <p>Configure Power Regulator settings</p> | <p>The Power Regulator on HP servers used in SDM need to be configured for optimum SDM software performance on both RMS and blade hardware.</p> <p>Still under <b>Power Management Options...</b></p> <p>Select <b>HP Power Regulator</b> option and press <b>[ENTER]</b>.</p> <p><i>Note:</i> A note may appear to say certain processors support only one power state. If this appears, press <b>[ESC]</b> to clear it.</p> <p>Change setting to <b>HP Static High Performance Mode</b> and press <b>[ENTER]</b>.</p> |
| <p>8.<br/><input type="checkbox"/></p> | <p>Save Configuration and Exit</p>        | <p>Press <b>&lt;ESC&gt;</b> two times</p> <p>Press <b>[F10]</b> to save the configuration and exit. The server will reboot</p>  <p><b>Expected Result:</b><br/>Settings are saved and server reboots.</p>   |

Appendix D.1: BIOS Settings for HP Blade and Rack Mount Servers

9.  Confirm the HP server's Power Regulator setting.

If not already connected to the server's iLO, connect using **Appendix A.1 Accessing the iLo VGA Redirection Window for HP.**

On the HP Server's iLO:

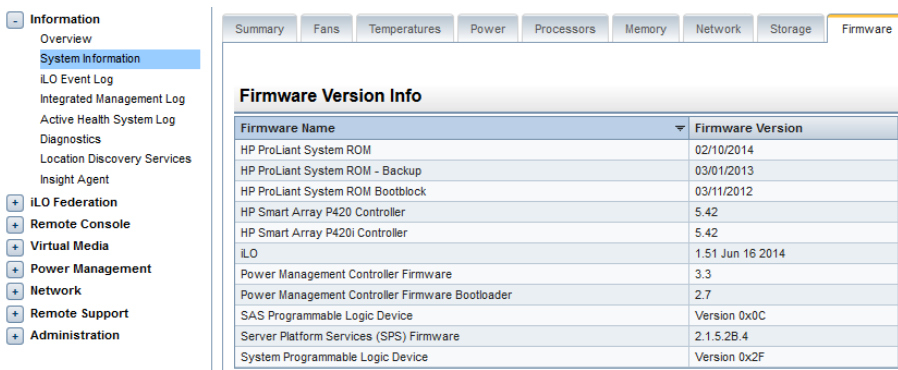
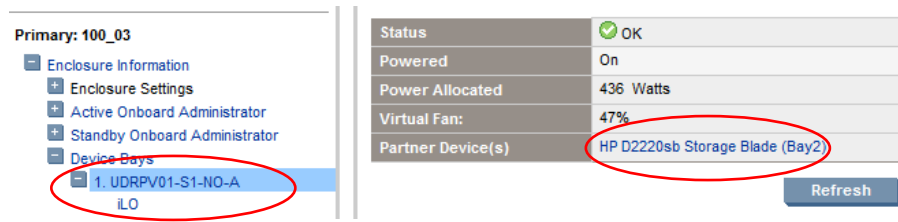
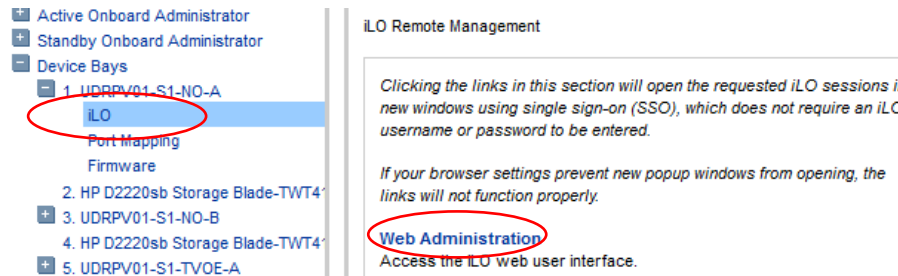
1. Navigate to **Power Management>Power Settings**
2. Confirm **Power Regulator for ProLiant** is set to: **'HP Static High Performance Mode'**

The screenshot shows the HP iLO 4 management interface for a ProLiant BL460c Gen8 server. The left sidebar contains a navigation menu with categories like Information, iLO Federation, Remote Console, Virtual Media, Power Management, Network, Remote Support, Administration, and BL c-Class. The 'Power Management' section is expanded, and 'Power Settings' is selected. The main content area displays a warning: 'HP iLO Advanced Pack not installed'. Below this, there is a section for 'Power Regulator Settings' with the following options:

- HP Dynamic Power Savings Mode
- HP Static Low Power Mode
- HP Static High Performance Mode
- OS Control mode

The 'HP Static High Performance Mode' option is circled in red in the original image.

Appendix D.1: BIOS Settings for HP Blade and Rack Mount Servers

|   |  |  |
|---|--|--|
| <p>10.</p> <p><input type="checkbox"/></p>  | <p>Confirm the HP server's firmware version.</p>   | <p>In the left tree menu Click: <b>Information</b> → <b>System Information</b> → <b>Firmware</b> (tab)</p>  <p>The minimum firmware release required for Oracle Communications User Data Repository 12.4 is HP Solutions Firmware Upgrade Pack 2.2.8. However, if a firmware upgrade is needed, the current GA release of the HP Solutions Firmware Upgrade Pack 2.x.x should be used.</p> <p>For deployments using the <b>HP Gen9</b> hardware with the D2220sb storage blade, the minimum HP Solutions Firmware Upgrade Pack version will be 2.2.9.</p> <p>If firmware update is required:</p> <ul style="list-style-type: none"> <li>○ For RMS: Execute Section 3.6.2.1 DL360/DL380 Server of reference [11].</li> <li>○ For Blade: Execute Section 3.4.1 Upgrade Blade Server Firmware of reference [11].</li> </ul> |
| <p>The following steps 10 – 12 are for <b>HP Gen9</b> hardware only for NOAMPs.</p> |  |  |
| <p>11.</p> <p><input type="checkbox"/></p>  | <p>Launch an approved web browser and connect to the Active Onboard Administrator interface</p> <p>Verify the Partner Device(s).</p> | <p>In the left tree menu Click: <b>Device Bays</b> -&gt; <b>#. HOSTNAME</b></p>  <p><b>Note:</b> Ensure that Partner Device(s) is HPD2220sb not D2200sb</p>  |
| <p>12.</p> <p><input type="checkbox"/></p>  | <p><b>Server iLO:</b></p> <p>Login blade iLO</p>   | <p>In left tree menu Click: <b>iLO</b> then <b>Web Administration</b></p>    |

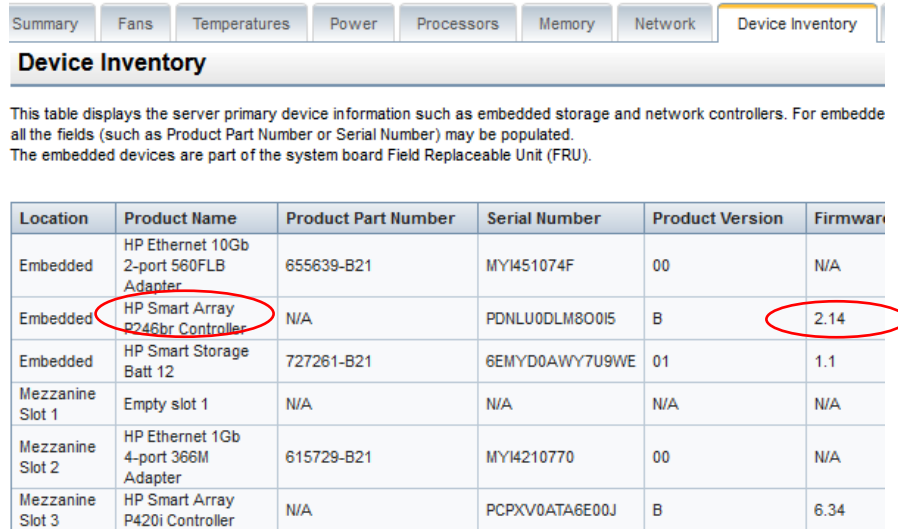
Appendix D.1: BIOS Settings for HP Blade and Rack Mount Servers

**13.**

**Server ILO:**

Verify HP Smart Array Controller

From left tree menu Click: **System Information**, then click the **Device Inventory** tab.



| Location         | Product Name                           | Product Part Number | Serial Number  | Product Version | Firmware |
|------------------|--|---------------------|----------------|-----------------|----------|
| Embedded         | HP Ethernet 10Gb 2-port 560FLB Adapter | 655639-B21          | MYI451074F     | 00              | N/A      |
| Embedded         | HP Smart Array P246br Controller       | N/A                 | PDNLU0DLM800I5 | B               | 2.14     |
| Embedded         | HP Smart Storage Batt 12               | 727261-B21          | 6EMYD0AWY7U9WE | 01              | 1.1      |
| Mezzanine Slot 1 | Empty slot 1                           | N/A                 | N/A            | N/A             | N/A      |
| Mezzanine Slot 2 | HP Ethernet 1Gb 4-port 366M Adapter    | 615729-B21          | MYI4210770     | 00              | N/A      |
| Mezzanine Slot 3 | HP Smart Array P420i Controller        | N/A                 | PCPXV0ATA6E00J | B               | 6.34     |

Ensure HP Smart Array controller is **P246br** and firmware version is at least **2.14**.

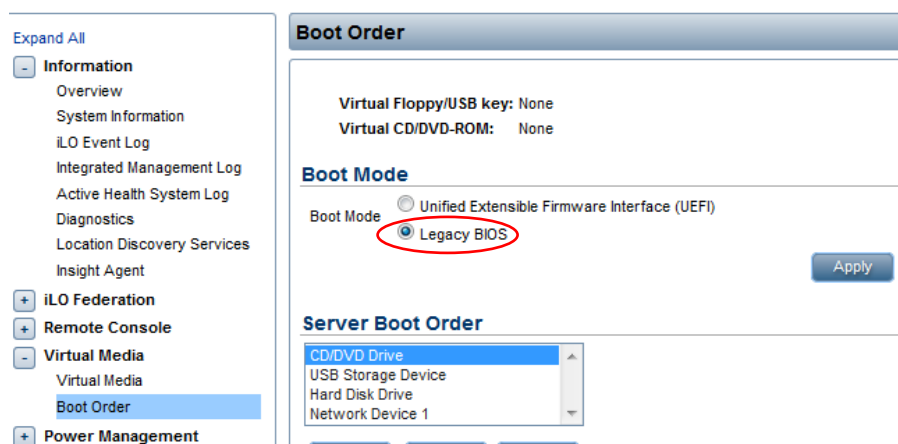
The following step 13 is for **HP Gen9** hardware only.

**14.**

**Server ILO:**

Verify the Boot Mode

From left tree menu Click: **Virtual Media > Boot Order**



**Note 1:** Ensure the Boot Mode on Gen9 is set to “**Legacy BIOS**”

**Note 2:** If the BIOS Mode setting must be changed, the server will need to be in a power off state which can be applied under **Power Management > Server Power** menu.

THIS PROCEDURE HAS BEEN COMPLETED

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

**D.2 Oracle RMS Firmware Upgrade**

This procedure will upgrade the server firmware. The actual firmware is to be downloaded at the My Oracle Support Site.

Release 12.10

171

August 2021

## Oracle Communications User Data Repository Installation and Configuration Guide

### Needed material:

- Oracle Firmware Upgrade Pack, Release Notes 3.1.x, E60195 [8]
- Oracle Firmware Upgrade Pack, Upgrade Guide, 3.1.x, E60196 [9]
- Access to My Oracle Support Site (MOS)

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

### Appendix D.2: Oracle RMS Firmware Upgrade

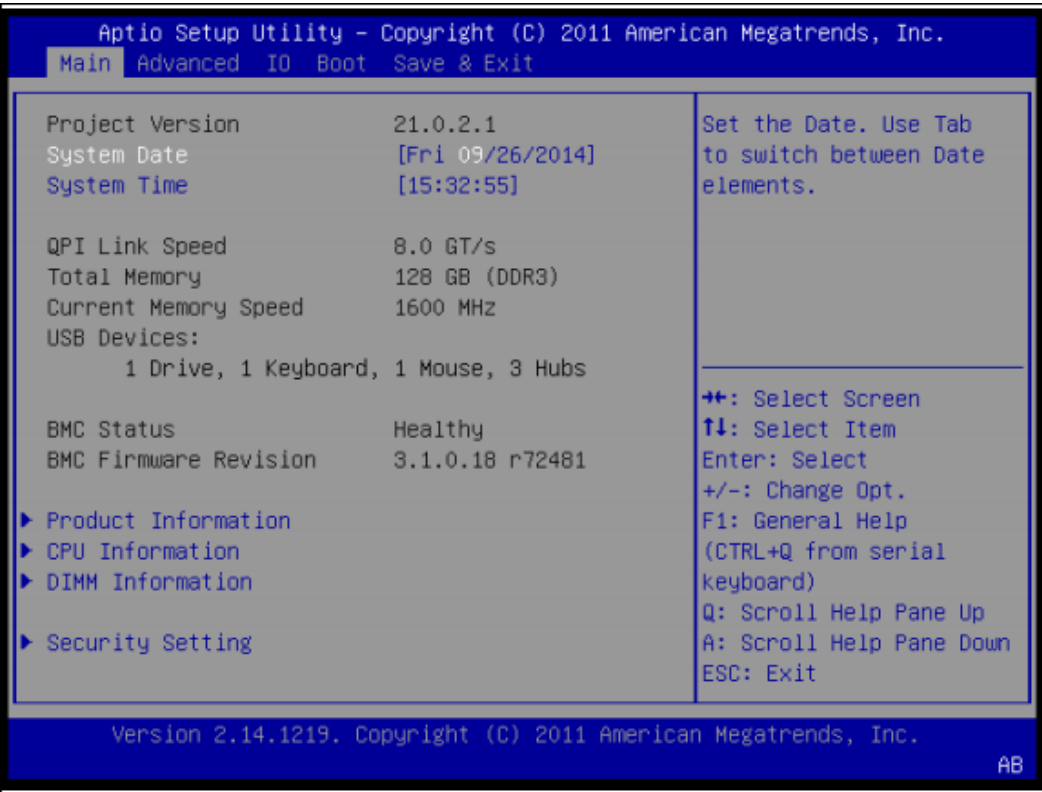
| Step                                     | Procedure                                    | Result  |
|--|--|---|
| 1.<br><input type="checkbox"/>           | <i>Upgrade<br/>Firmware if<br/>necessary</i> | The Oracle Firmware Upgrade Pack (FUP) consists of documentation used to assist in the upgrading of Oracle rack mount servers. The pack consists of Release Notes and an Upgrade Guide (refer to Needed Material above). However, if a firmware update is required, it is recommended to use the latest available release. Firmware components can be downloaded from My Oracle Support at <a href="https://support.oracle.com">https://support.oracle.com</a> . Refer to the FUP Release Notes E60195 [8] for directions on how to acquire the firmware. |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |  |   |

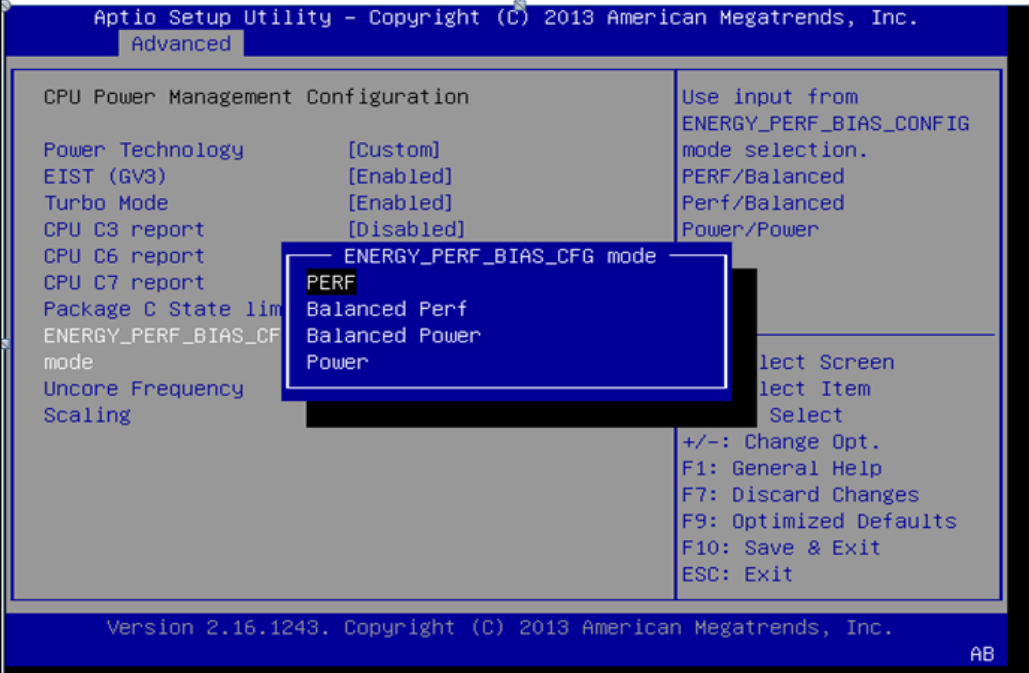


### D.3 BIOS Settings for Oracle RMS Servers

This procedure will configure BIOS settings for Oracle Rack Mount Servers.

#### Appendix D.3: Bios Settings for Oracle RMS Servers

| Step   | Procedure  | Result   |
|--|--|--|
| <p>1.</p> <input type="checkbox"/>   | <p>Access the Oracle server's console.</p>                               | <p>Connect to the server's console using Appendix A.2 Accessing the iLo VGA Redirection Window for Oracle RMS Servers or Appendix A.3 Accessing the iLo Console for Oracle RMS Servers.</p>                      |
| <p>2.</p> <input type="checkbox"/>   | <p>Oracle server's console</p> <p>Reboot the server and press F2 Key</p> | <p>Reboot the server. After the server is powered on, <b>press the F2 key</b> when prompted to access the Setup Utility.</p>  |
| <p>3.</p> <input type="checkbox"/> | <p>Oracle server's console</p>   | <p>Set the server date and time to GMT (Greenwich Mean Time).</p>  |

| Step  | Procedure                      | Result   |
|---|--------------------------------|--|
| <p>4.</p> <p><input type="checkbox"/></p>       | <p>Oracle server's console</p> | <p>Go to the Advanced Menu.</p>  <p>1) Select <b>Processors</b>.</p> <p>2) Select <b>CPU Power Management Configuration</b>.</p> <p>3) If Energy Performance is not set to <b>[Performance]</b>, select <b>Energy Performance</b> and press <b>Enter</b>.</p> <p>4) In the resulting menu, select the <b>Performance</b> option and press <b>Enter</b>.</p> <p>5) Press <b>&lt;ESC&gt;</b> to return to the Advanced menu.<br/>For X5-2 servers, press the <b>Escape</b> key once to return to the <b>Advanced</b> menu. For other servers, press the <b>Escape</b> key twice to return to the <b>Advanced</b> menu.</p> <p>6) Select the <b>Exit or Save &amp; Exit</b> menu and press <b>Enter</b> on <b>Save Changes and Reset</b></p> <p>7) Answer <b>Yes</b> to the prompt for confirmation</p> |
| <p>5.</p> <p><input type="checkbox"/></p>       | <p>Oracle server's console</p> | <p>Go to the <b>Save &amp; Exit</b> menu.</p> <p>a) Select <b>Save Changes and Reset</b></p>   |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |                                |  |

## Appendix E. Configuring Disk Array (NO Network Element Servers)

This procedure contains steps to configure disk array before installing the application.

### E.1 Configuring RMS Disk Array (NO Network Element Servers)

#### Appendix E.1: Configuring RMS Disk Array on NO Network Element Servers

| Step                           | Procedure                                    | Result   |
|--------------------------------|--|--|
| 1.<br><input type="checkbox"/> | <i>Access the HP server's console.</i>       | Connect to the HP server's console using one of the access methods described in <b>Section 2.1.2</b> . |
| 2.<br><input type="checkbox"/> | <i>Enter command to show physical drives</i> | # <code>hpssacli ctrl all show config</code>   |

Appendix E.1: Configuring RMS Disk Array on NO Network Element Servers

| Step   | Procedure                                     | Result  |
|--|---|---|
| <p>3.</p> <input type="checkbox"/>   | <p>View output from the above command</p>     | <p>Verify that there are two slots: <b>Slot 2</b> should have eight unassigned physical drives, <b>Slot 0</b> should have one logical drive with two 900.1 GB physical drives and four unassigned physical drives.</p> <p><i>NOTE: If this command does not show two slots with fourteen total physical drives, the hardware does not conform to a disk array system and neither the material in this or the next section applies to the system (in such case, this procedure must be skipped).</i></p> <p><i>NOTE: If this command shows all drives are assigned, you may be installing onto hardware that has been through a prior installation (in such case, perform <b>Appendix M.1</b> Removing RMS Disk Array Configuration before returning to this step).</i></p> <pre>Smart Array P420 in Slot 2 (sn: PDKRH0ARH3X0CO)   unassigned    physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 146 GB, OK)   physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 146 GB, OK)   physicaldrive 1I:1:3 (port 1I:box 1:bay 3, SAS, 146 GB, OK)   physicaldrive 1I:1:4 (port 1I:box 1:bay 4, SAS, 146 GB, OK)   physicaldrive 2I:1:5 (port 2I:box 1:bay 5, SAS, 146 GB, OK)   physicaldrive 2I:1:6 (port 2I:box 1:bay 6, SAS, 146 GB, OK)   physicaldrive 2I:1:7 (port 2I:box 1:bay 7, SAS, 146 GB, OK)   physicaldrive 2I:1:8 (port 2I:box 1:bay 8, SAS, 146 GB, OK)    SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 5001438025183C4F)  Smart Array P420i in Slot 0 (Embedded) (sn: 5001438025A44EF0)   array A (SAS, Unused Space: 0 MB)    logicaldrive 1 (838.3 GB, RAID 1, OK)    physicaldrive 1I:2:1 (port 1I:box 2:bay 1, SAS, 900.1 GB, OK)   physicaldrive 1I:2:2 (port 1I:box 2:bay 2, SAS, 900.1 GB, OK)    unassigned    physicaldrive 1I:2:3 (port 1I:box 2:bay 3, SAS, 146 GB, OK)   physicaldrive 1I:2:4 (port 1I:box 2:bay 4, SAS, 146 GB, OK)   physicaldrive 2I:2:5 (port 2I:box 2:bay 5, SAS, 146 GB, OK)   physicaldrive 2I:2:6 (port 2I:box 2:bay 6, SAS, 146 GB, OK)    SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 5001438025A44EFF)</pre> |
| <p>4.</p> <input type="checkbox"/> | <p>Create first <b>Slot 2</b> assignment</p>  | <pre># hpssacli ctrl slot=2 create type=ld \ drives=1I:1:1,1I:1:2,1I:1:3,1I:1:4 raid=1+0 stripsize=256</pre> <p><i>NOTE: This command returns no output.</i></p>  |
| <p>5.</p> <input type="checkbox"/> | <p>Create second <b>Slot 2</b> assignment</p> | <pre># hpssacli ctrl slot=2 create type=ld \ drives=2I:1:5,2I:1:6,2I:1:7,2I:1:8 raid=1+0 stripsize=256</pre> <p><i>NOTE: This command returns no output.</i></p>  |

Appendix E.1: Configuring RMS Disk Array on NO Network Element Servers

| Step                           | Procedure                             | Result   |
|--------------------------------|---------------------------------------|--|
| 6.<br><input type="checkbox"/> | Create <i>Slot 0</i> assignment       | <pre># hpssacli ctrl slot=0 create type=ld drives=allunassigned \ raid=1+0 stripsize=256</pre> <p><i>NOTE: This command returns no output.</i></p> |
| 7.<br><input type="checkbox"/> | Enter command to show physical drives | <pre># hpssacli ctrl all show config</pre>   |

Appendix E.1: Configuring RMS Disk Array on NO Network Element Servers

| Step  | Procedure  | Result  |
|---|--|---|
| <p>8.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div> | <p><i>View output from the above command</i></p> | <p>Verify output of the previous command. This should appear like the example output below. Verify that there are four logical drives: three logical drives with four physical drives, and a single logical drive with two physical drives.</p> <pre> Smart Array P420 in Slot 2                               (sn: PDKRH0ARH3X0HB)    array A (SAS, Unused Space: 0 MB)      logicaldrive 1 (273.4 GB, OK, RAID 1+0, OK)      physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 146 GB, OK)     physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 146 GB, OK)     physicaldrive 1I:1:3 (port 1I:box 1:bay 3, SAS, 146 GB, OK)     physicaldrive 1I:1:4 (port 1I:box 1:bay 4, SAS, 146 GB, OK)    array B (SAS, Unused Space: 0 MB)      logicaldrive 2 (273.4 GB, OK, RAID 1+0, OK)      physicaldrive 2I:1:5 (port 2I:box 1:bay 5, SAS, 146 GB, OK)     physicaldrive 2I:1:6 (port 2I:box 1:bay 6, SAS, 146 GB, OK)     physicaldrive 2I:1:7 (port 2I:box 1:bay 7, SAS, 146 GB, OK)     physicaldrive 2I:1:8 (port 2I:box 1:bay 8, SAS, 146 GB, OK)  SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 500143802518449F)  Smart Array P420i in Slot 0 (Embedded)                   (sn: 5001438025A465B0)    array A (SAS, Unused Space: 0 MB)      logicaldrive 1 (838.3 GB, RAID 1, OK)      physicaldrive 1I:2:1 (port 1I:box 2:bay 1, SAS, 900.1 GB, OK)     physicaldrive 1I:2:2 (port 1I:box 2:bay 2, SAS, 900.1 GB, OK)    array B (SAS, Unused Space: 0 MB)      logicaldrive 2 (273.4 GB, OK, RAID 1+0, OK)      physicaldrive 1I:2:3 (port 1I:box 2:bay 3, SAS, 146 GB, OK)     physicaldrive 1I:2:4 (port 1I:box 2:bay 4, SAS, 146 GB, OK)     physicaldrive 2I:2:5 (port 2I:box 2:bay 5, SAS, 146 GB, OK)     physicaldrive 2I:2:6 (port 2I:box 2:bay 6, SAS, 146 GB, OK)  SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 5001438025A465BF) </pre> |

**Appendix E.1: Configuring RMS Disk Array on NO Network Element Servers**

| Step                                     | Procedure   | Result   |      |         |         |      |       |       |           |        |      |     |         |         |
|--|---|--|------|---------|---------|------|-------|-------|-----------|--------|------|-----|---------|---------|
| 9.<br><input type="checkbox"/>           | Check for existing physical volumes                   | <pre># pvs</pre> <pre>[root@hostname1380908951 ~]# pvs</pre> <table border="1"> <thead> <tr> <th>PV</th> <th>VG</th> <th>Fmt</th> <th>Attr</th> <th>PSize</th> <th>PFree</th> </tr> </thead> <tbody> <tr> <td>/dev/sda2</td> <td>vgroot</td> <td>lvm2</td> <td>a--</td> <td>838.06g</td> <td>827.06g</td> </tr> </tbody> </table> <p><b>NOTE:</b> If additional devices /dev/sdb, /dev/sdc/, and /dev/sdd are displayed by this command then physical volumes are already configured. In such case continue to <b>Step 14</b> of this procedure.</p> | PV   | VG      | Fmt     | Attr | PSize | PFree | /dev/sda2 | vgroot | lvm2 | a-- | 838.06g | 827.06g |
| PV                                       | VG  | Fmt  | Attr | PSize   | PFree   |      |       |       |           |        |      |     |         |         |
| /dev/sda2                                | vgroot  | lvm2   | a--  | 838.06g | 827.06g |      |       |       |           |        |      |     |         |         |
| 10.<br><input type="checkbox"/>          | Create physical volume <b>sdb</b>                     | <pre># pvcreate /dev/sdb</pre> <pre>Physical volume "/dev/sdb" successfully created</pre>  |      |         |         |      |       |       |           |        |      |     |         |         |
| 11.<br><input type="checkbox"/>          | Create physical volume <b>sdc</b>                     | <pre># pvcreate /dev/sdc</pre> <pre>Physical volume "/dev/sdc" successfully created</pre>  |      |         |         |      |       |       |           |        |      |     |         |         |
| 12.<br><input type="checkbox"/>          | Create physical volume <b>sdd</b>                     | <pre># pvcreate /dev/sdd</pre> <pre>Physical volume "/dev/sdd" successfully created</pre>  |      |         |         |      |       |       |           |        |      |     |         |         |
| 13.<br><input type="checkbox"/>          | Execute the following syscheck/restart steps in order | <pre># syscheck --reconfig disk smart</pre> <pre># service smartd restart</pre> <pre># syscheck disk smart</pre>   |      |         |         |      |       |       |           |        |      |     |         |         |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |  |      |         |         |      |       |       |           |        |      |     |         |         |

**E.2 Configuring RMS Disk Array With Low Speed Drives (NO Network Element Servers)**

**Appendix E.2: Configuring RMS Disk Array With Low Speed Drives on NO Network Element Servers**

| Step                           | Procedure                             | Result   |
|--------------------------------|---------------------------------------|--|
| 1.<br><input type="checkbox"/> | Access the HP server's console.       | Connect to the HP server's console using one of the access methods described in <b>Section 2.1.2</b> . |
| 2.<br><input type="checkbox"/> | Enter command to show physical drives | <pre># hpssacli ctrl all show config</pre>   |

Appendix E.2: Configuring RMS Disk Array With Low Speed Drives on NO Network Element Servers

| Step   | Procedure                                    | Result   |
|--|--|--|
| <p>3.</p> <input type="checkbox"/>   | <p>View output from the above command</p>    | <p><i>NOTE: If this command does not show two slots with eight total physical drives, the hardware does not conform to a disk array system and neither the material in this or the next section applies to the system (in such case, this procedure must be skipped ).</i></p> <p><i>NOTE: If this command shows all drives are assigned, you may be installing onto hardware that has been through a prior installation (in such case, perform <b>Appendix M.1</b> Removing RMS Disk Array Configuration before returning to this step).</i></p> <pre>Smart Array P420 in Slot 2 (sn: PDKRH0ARH4T0VP)  Internal Drive Cage at Port 1I, Box 1, OK Internal Drive Cage at Port 2I, Box 1, OK  array A (SAS, Unused Space: 0 MB)   logicaldrive 1 (1.1 TB, RAID 1+0, OK)   physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 600 GB, OK)   physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 600 GB, OK)   physicaldrive 1I:1:3 (port 1I:box 1:bay 3, SAS, 600 GB, OK)   physicaldrive 1I:1:4 (port 1I:box 1:bay 4, SAS, 600 GB, OK)  array B (SAS, Unused Space: 0 MB)   logicaldrive 2 (558.9 GB, RAID 1, OK)   physicaldrive 2I:1:5 (port 2I:box 1:bay 5, SAS, 600 GB, OK)   physicaldrive 2I:1:6 (port 2I:box 1:bay 6, SAS, 600 GB, OK)   SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 500143802751AD2F)  Smart Array P420i in Slot 0 (Embedded) (sn: 5001438025AB3150) Internal Drive Cage at Port 1I, Box 2, OK Internal Drive Cage at Port 2I, Box 0, OK array A (SAS, Unused Space: 0 MB)   logicaldrive 1 (838.3 GB, RAID 1, OK)    physicaldrive 1I:2:1 (port 1I:box 2:bay 1, SAS, 900.1 GB, OK)   physicaldrive 1I:2:2 (port 1I:box 2:bay 2, SAS, 900.1 GB, OK)    SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 5001438025AB315F)</pre> |
| <p>4.</p> <input type="checkbox"/> | <p>Create first Slot 2 assignment</p>        | <pre># hpssacli ctrl slot=2 create type=ld \ drives=1I:1:1,1I:1:2,1I:1:3,1I:1:4 raid=1+0 stripsize=256</pre> <p><i>NOTE: This command returns no output.</i></p>   |
| <p>5.</p> <input type="checkbox"/> | <p>Create second Slot 2 assignment</p>       | <pre># hpssacli ctrl slot=2 create type=ld \ drives=2I:1:5,2I:1:6 stripsize=256</pre> <p><i>NOTE: This command returns no output.</i></p>  |
| <p>6.</p> <input type="checkbox"/> | <p>Enter command to show physical drives</p> | <pre># hpssacli ctrl all show config</pre>   |



Appendix E.2: Configuring RMS Disk Array With Low Speed Drives on NO Network Element Servers

| Step   | Procedure                                      | Result   |
|--|--|--|
| <p>7.</p> <input type="checkbox"/>   | <p>View output from the above command</p>      | <p>Verify output of the previous command. This should appear like the example output below. Verify that there are four logical drives: three logical drives with four physical drives, and a single logical drive with two physical drives.</p> <pre>Smart Array P420 in Slot 2 (sn: PDKRH0ARH4T0VP)  Internal Drive Cage at Port 1I, Box 1, OK Internal Drive Cage at Port 2I, Box 1, OK  array A (SAS, Unused Space: 0 MB)   logicaldrive 1 (1.1 TB, RAID 1+0, OK)   physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 600 GB, OK)   physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 600 GB, OK)   physicaldrive 1I:1:3 (port 1I:box 1:bay 3, SAS, 600 GB, OK)   physicaldrive 1I:1:4 (port 1I:box 1:bay 4, SAS, 600 GB, OK)  array B (SAS, Unused Space: 0 MB)   logicaldrive 2 (558.9 GB, RAID 1, OK)   physicaldrive 2I:1:5 (port 2I:box 1:bay 5, SAS, 600 GB, OK)   physicaldrive 2I:1:6 (port 2I:box 1:bay 6, SAS, 600 GB, OK) SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 500143802751AD2F)  Smart Array P420i in Slot 0 (Embedded) (sn: 5001438025AB3150) Internal Drive Cage at Port 1I, Box 2, OK Internal Drive Cage at Port 2I, Box 0, OK array A (SAS, Unused Space: 0 MB)   logicaldrive 1 (838.3 GB, RAID 1, OK)    physicaldrive 1I:2:1 (port 1I:box 2:bay 1, SAS, 900.1 GB, OK)   physicaldrive 1I:2:2 (port 1I:box 2:bay 2, SAS, 900.1 GB, OK)  SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 5001438025AB315F)</pre> |
| <p>8.</p> <input type="checkbox"/> | <p>Check for existing physical volumes</p>     | <pre># pvs  [root@hostname1380908951 ~]# pvs PV          VG          Fmt Attr PSize  PFree /dev/sda2   vgroot      lvm2 a--  838.06g 827.06g</pre> <p><b>NOTE:</b> If additional devices <code>/dev/sdb</code>, <code>/dev/sdc</code>, and <code>/dev/sdd</code> are displayed by this command then physical volumes are already configured. In such case continue to <b>Step 11</b> of this procedure.</p>  |
| <p>9.</p> <input type="checkbox"/> | <p>Create physical volume <code>sdb</code></p> | <pre># pvcreate /dev/sdb Physical volume "/dev/sdb" successfully created</pre>   |

**Appendix E.2: Configuring RMS Disk Array With Low Speed Drives on NO Network Element Servers**

| Step                                     | Procedure  | Result   |
|--|--|--|
| 10.<br><input type="checkbox"/>          | Create physical volume <b>sdc</b>                                  | # <code>pvcreate /dev/sdc</code><br>Physical volume "/dev/sdc" successfully created  |
| 11.<br><input type="checkbox"/>          | Execute the following <code>syscheck/restart</code> steps in order | # <code>syscheck --reconfig disk smart</code><br># <code>service smartd restart</code><br># <code>syscheck disk smart</code> |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |  |  |

**E.3 Configuring Blade Disk Array (NO Network Element Servers with Sidecar)**

**Appendix E.3: Configuring Blade Disk Array on NO Network Element Servers with Sidecar**

| Step                           | Procedure                             | Result   |
|--------------------------------|---------------------------------------|--|
| 1.<br><input type="checkbox"/> | Access the HP server's console.       | Connect to the HP server's console using one of the access methods described in <b>Section 2.1.2</b> . |
| 2.<br><input type="checkbox"/> | Enter command to show physical drives | # <code>hpssacli ctrl all show config</code>   |

Appendix E.3: Configuring Blade Disk Array on NO Network Element Servers with Sidecar

| Step   | Procedure                                    | Result  |
|--|--|---|
| <p>3.</p> <input type="checkbox"/>   | <p>View output from the above command</p>    | <p>Verify that there are two slots: <b>Slot 0</b> should one logical drive with two 900.1 GB physical drives, <b>Slot 3</b> should have an twelve (12) unassigned physical drives.</p> <p><i>NOTE: If this command does not show two slots with fourteen total physical drives, the hardware does not conform to a disk array system and neither the material in this or the next section applies to the system (in such case, this procedure must be skipped ).</i></p> <p><i>NOTE: If this command shows all drives are assigned, you may be installing onto hardware that has been through a prior installation (in such case, perform <b>Appendix M.2</b> Removing Blade Disk Array Configuration (Sidecar)before returning to this step).</i></p> <pre>Smart Array P220i in Slot 0 (Embedded)      (sn: PCQVU0CRH5V2JU)  array A (SAS, Unused Space: 0 MB)    logicaldrive 1 (838.3 GB, RAID 1, OK)      physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 900.1 GB, OK)     physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 900.1 GB, OK)  SEP (Vendor ID PMCSIERA, Model SRCv4x6G) 380 (WWID: 5001438028DDB56F)  Smart Array P410i in Slot 3                (sn: 5001438025905EB0)  unassigned    physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 146 GB, OK)   physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 146 GB, OK)   physicaldrive 1I:1:3 (port 1I:box 1:bay 3, SAS, 146 GB, OK)   physicaldrive 1I:1:4 (port 1I:box 1:bay 4, SAS, 146 GB, OK)   physicaldrive 1I:1:5 (port 1I:box 1:bay 5, SAS, 146 GB, OK)   physicaldrive 1I:1:6 (port 1I:box 1:bay 6, SAS, 146 GB, OK)   physicaldrive 1I:1:7 (port 1I:box 1:bay 7, SAS, 146 GB, OK)   physicaldrive 1I:1:8 (port 1I:box 1:bay 8, SAS, 146 GB, OK)   physicaldrive 1I:1:9 (port 1I:box 1:bay 9, SAS, 146 GB, OK)   physicaldrive 1I:1:10 (port 1I:box 1:bay 10, SAS, 146 GB, OK)   physicaldrive 1I:1:11 (port 1I:box 1:bay 11, SAS, 146 GB, OK)   physicaldrive 1I:1:12 (port 1I:box 1:bay 12, SAS, 146 GB, OK)  Expander 250 (WWID: 50014380251F83E6, Port: 1I, Box: 1)</pre> |
| <p>4.</p> <input type="checkbox"/> | <p>Create <b>Slot 3</b> assignment</p>       | <pre># hpssacli ctrl slot=3 create type=ld \ drives=allunassigned raid=1+0 stripsize=256</pre> <p><i>NOTE: This command returns no output.</i></p>  |
| <p>5.</p> <input type="checkbox"/> | <p>Enter command to show physical drives</p> | <pre># hpssacli ctrl all show config</pre>  |

Appendix E.3: Configuring Blade Disk Array on NO Network Element Servers with Sidecar

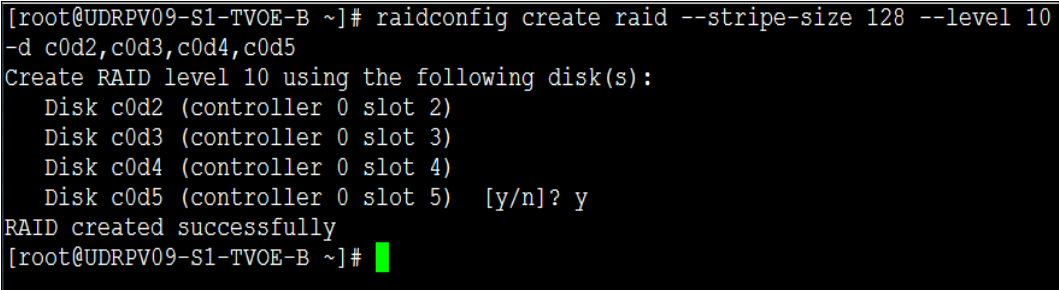
| Step  | Procedure  | Result  |
|---|--|---|
| <p>6.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div> | <p><i>View output from the above command</i></p> | <p>Verify output of the previous command. This should appear like the example output below. Verify that there are four logical drives: three logical drives with four physical drives, and a single logical drive with two physical drives.</p> <pre> Smart Array P220i in Slot 0 (Embedded)      (sn: PCQVU0CRH5V2JU)    array A (SAS, Unused Space: 0 MB)   logicaldrive 1 (838.3 GB, RAID 1, OK)      physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 900.1 GB, OK)     physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 900.1 GB, OK)    SEP (Vendor ID PMCSIERA, Model SRCv4x6G) 380 (WWID: 5001438028DDB56F)  Smart Array P410i in Slot 3 (sn: 5001438025905EB0)    array A (SAS, Unused Space: 0 MB)   logicaldrive 1 (820.2 GB, RAID 1+0, OK)      physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 146 GB, OK)     physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 146 GB, OK)     physicaldrive 1I:1:3 (port 1I:box 1:bay 3, SAS, 146 GB, OK)     physicaldrive 1I:1:4 (port 1I:box 1:bay 4, SAS, 146 GB, OK)     physicaldrive 1I:1:5 (port 1I:box 1:bay 5, SAS, 146 GB, OK)     physicaldrive 1I:1:6 (port 1I:box 1:bay 6, SAS, 146 GB, OK)     physicaldrive 1I:1:7 (port 1I:box 1:bay 7, SAS, 146 GB, OK)     physicaldrive 1I:1:8 (port 1I:box 1:bay 8, SAS, 146 GB, OK)     physicaldrive 1I:1:9 (port 1I:box 1:bay 9, SAS, 146 GB, OK)     physicaldrive 1I:1:10 (port 1I:box 1:bay 10, SAS, 146 GB, OK)     physicaldrive 1I:1:11 (port 1I:box 1:bay 11, SAS, 146 GB, OK)     physicaldrive 1I:1:12 (port 1I:box 1:bay 12, SAS, 146 GB, OK)    Expander 250 (WWID: 50014380251F83E6, Port: 1I, Box: 1)                     </pre> |

## Appendix E.3: Configuring Blade Disk Array on NO Network Element Servers with Sidecar

| Step   | Procedure   | Result  |
|--|---|---|
| 7.<br><input type="checkbox"/>                             | Check for existing physical volumes                   | <pre># pvs</pre> <p>For Normal Capacity (Gen8 and Gen8+):<br/>[root@hostname1380908951 ~]# pvs<br/>PV VG Fmt Attr PSize PFree<br/>/dev/sda2 vgroot lvm2 a-- 838.06g 827.06g</p> <p>For Low Capacity (Gen8 and Gen8+):<br/>[root@hostname1380908951 ~]# pvs<br/>PV VG Fmt Attr PSize PFree<br/>/dev/sda2 vgroot lvm2 a-- 819.03g 827.06g</p> <p>For Normal Capacity (Gen9):<br/>[root@BL9080501-Gen9-no-a ~]# pvs<br/>PV VG Fmt Attr PSize PFree<br/>/dev/sdb2 vgroot lvm2 a-- 838.06g 827.06g</p> <p>For Low Capacity (Gen9):<br/>[root@BL9080501-Gen9-no-a ~]# pvs<br/><br/>PV VG Fmt Attr PSize PFree<br/>/dev/sdb2 vgroot lvm2 a-- 819.03g 827.06g</p> <p><b>NOTE:</b> If an additional device /dev/sdb is displayed by this command then physical volumes are already configured. In such case continue to <b>Step 9</b> of this procedure.</p> |
| 8.<br><input type="checkbox"/>                             | Create physical volume <b>sdb</b>                     | <pre># pvcreate /dev/sdb</pre> <p>Physical volume "/dev/sdb" successfully created</p>   |
| 9.<br><input type="checkbox"/>                             | Create volume group <b>stripe_vg</b>                  | <p><b>**Don't execute for Low Capacity C-Class</b></p> <pre># vgcreate stripe_vg /dev/sdb</pre> <p>Volume group "stripe_vg" successfully created</p>  |
| <b>Execute the following step 12 on Gen9 servers only!</b> |   |   |
| 10.<br><input type="checkbox"/>                            | Execute the following syscheck/restart steps in order | <pre># syscheck --reconfig disk smart # service smartd restart # syscheck disk smart</pre>  |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b>                   |   |   |

## E.4 Configuring Oracle RMS Disk Array (NO Network Element Servers)

### Appendix E.4: Configuring Oracle RMS Disk Array on NO Network Element Servers

| Step                           | Procedure                                    | Result  |
|--------------------------------|--|---|
| 1.<br><input type="checkbox"/> | Access the Oracle RMS server's console.      | Connect to the server's console using A.2 Accessing the iLo VGA Redirection Window for Oracle RMS Servers or ssh to tvoe server or Appendix A.3 Accessing the iLo Console for Oracle RMS Servers.   |
| 2.<br><input type="checkbox"/> | Remove prior RAID configuration if necessary | If the hardware has been through a prior installation, perform Appendix M.3: Removing RMS Disk Array Configuration for Oracle Servers before continuing.  |
| 3.<br><input type="checkbox"/> | Configure Disk Array                         | <pre># raidconfig create raid --stripe-size 128 --level 10 -d c0d2,c0d3,c0d4,c0d5</pre>  <pre>[root@UDRPV09-S1-TVOE-B ~]# raidconfig create raid --stripe-size 128 --level 10 -d c0d2,c0d3,c0d4,c0d5 Create RAID level 10 using the following disk(s):   Disk c0d2 (controller 0 slot 2)   Disk c0d3 (controller 0 slot 3)   Disk c0d4 (controller 0 slot 4)   Disk c0d5 (controller 0 slot 5)  [y/n]? y RAID created successfully [root@UDRPV09-S1-TVOE-B ~]#</pre>   |
| 4.<br><input type="checkbox"/> | Verify the disk array configuration          | <pre># raidconfig list all</pre> <p>The disk array configuration should be as shown:</p> <pre>CONTROLLER c0 ===== Manufacturer  Model                      F/W Version  RAID Volumes  Disks ----- LSI Logic     MegaRAID 9361-8i           4.230.40-3739  2              6  RAID Volumes ===== ID      Name      Device      Status  Num Disks  Level  Size (GiB) ----- c0r0    /dev/sda  OK          2       1          1117 c0r1    /dev/sdb  OK          4       10         743  DISKS In Use ===== ID      Chassis  Slot  RAID ID  Status  Type  Media  Spare  Size (GiB) ----- c0d0    0        0     c0r0    OK      sas  HDD   -      1117 c0d1    0        1     c0r0    OK      sas  HDD   -      1117 c0d2    0        2     c0r1    OK      sas  SSD   -      372 c0d3    0        3     c0r1    OK      sas  SSD   -      372 c0d4    0        4     c0r1    OK      sas  SSD   -      372 c0d5    0        5     c0r1    OK      sas  SSD   -      372</pre> |

Appendix E.4: Configuring Oracle RMS Disk Array on NO Network Element Servers

| Step                           | Procedure  | Result   |
|--------------------------------|--|--|
| 5.<br><input type="checkbox"/> | <i>Reboot the server</i>                                     | Reboot the tvoe server (to make changes from /dev/sdc to /dev/sdb)<br><b># reboot</b>      |
| 6.<br><input type="checkbox"/> | <i>Execute the following syscheck/restart steps in order</i> | <pre># syscheck --reconfig disk smart # service smartd restart # syscheck disk smart</pre> |

## Appendix F. Installing Operating Systems

This procedure contains steps to apply server configuration scripts to rack mount servers.

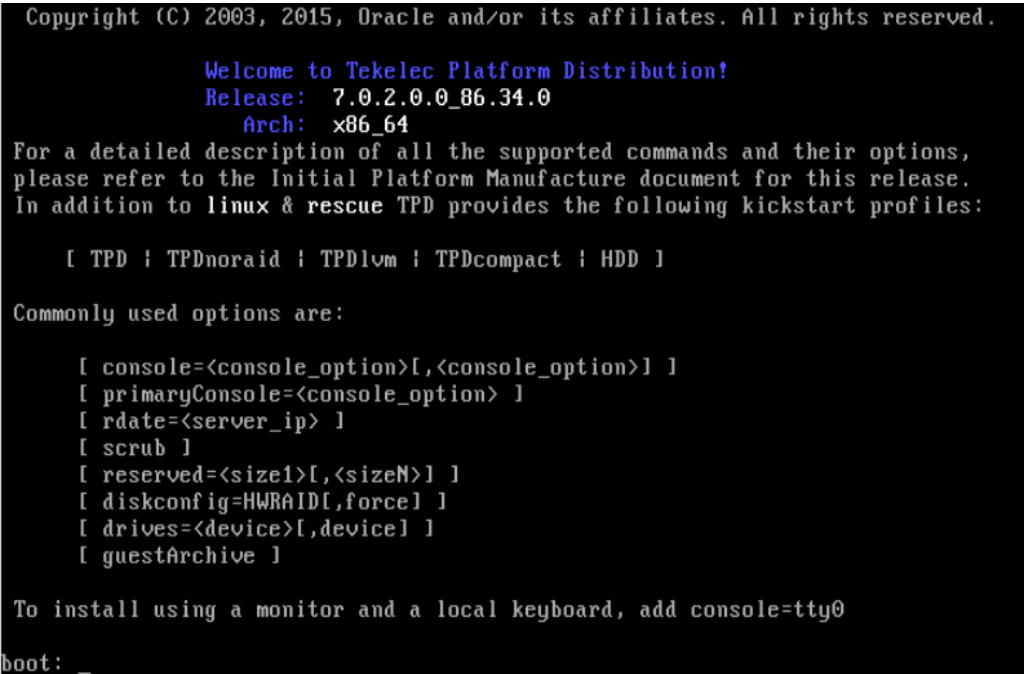
### F.1 Installing Operating Systems with ILO

#### Appendix F.1: Installing Operating Systems with ILO

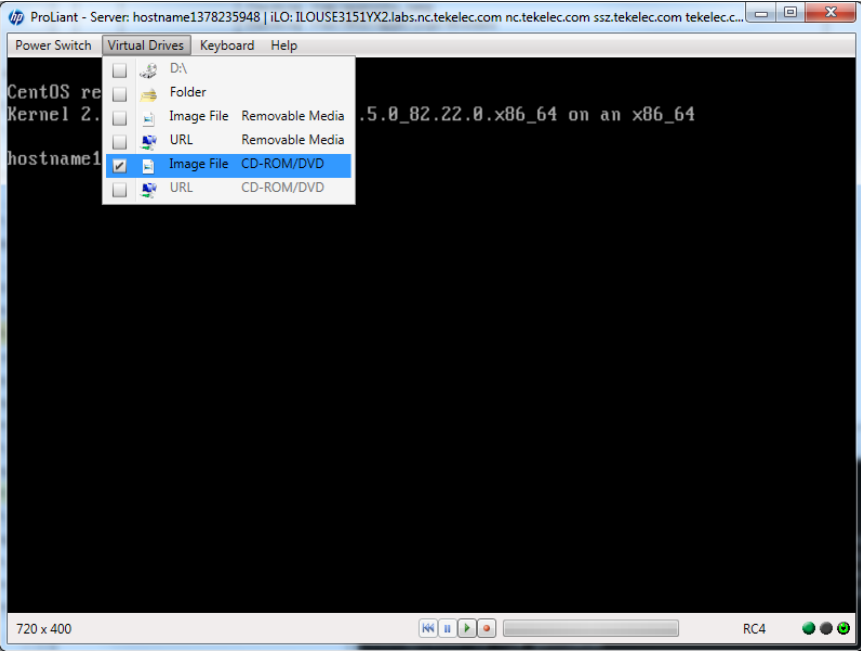
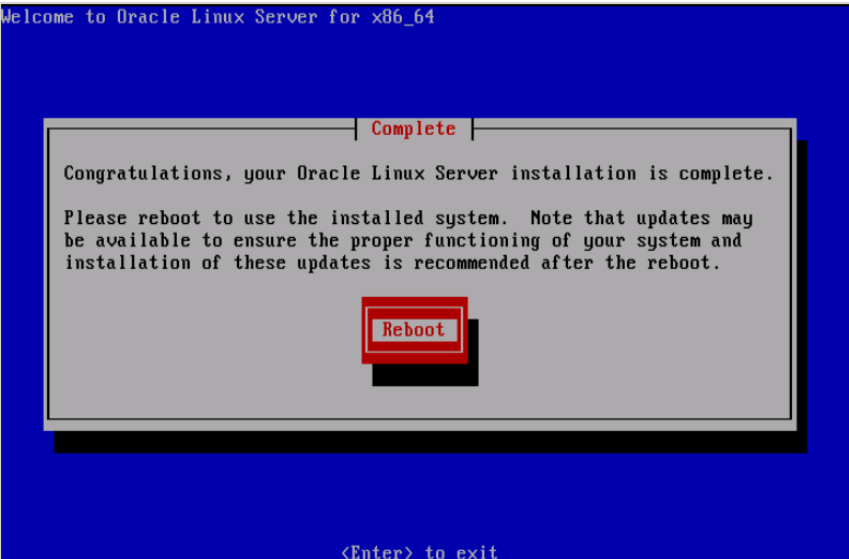
| Step                           | Procedure   | Result   |
|--------------------------------|---|--|
| 1.<br><input type="checkbox"/> | <i>Access the HP server's console.</i>  | Connect to the HP server's console using one of the access methods described in <b>Section 2.1.2</b> .   |
| 2.<br><input type="checkbox"/> | <i>Mount the media containing the TPD/TVOE software.</i><br><i>[TVOE for low capacity configurations]</i> | Follow steps defined in ...<br><br><b>Appendix C.1</b> Mounting Physical Media on HP Servers<br><br><b>or</b><br><br><b>Appendix C.2</b> Mounting Virtual Media on HP Servers<br><br>... to mount the OS software. |
| 3.<br><input type="checkbox"/> | <i>Initiate a reboot of the server.</i>   | # <b>reboot</b><br><br>Broadcast message from sathiya@sathiya-laptop (/dev/pts/1) at 11:28 ...<br><br>The system is going down for reboot NOW!   |



Appendix F.1: Installing Operating Systems with ILO

| Step   | Procedure   | Result   |
|--|---|--|
| <p>4.</p> <input type="checkbox"/> | <p><i>Begin Platform Installation process</i></p> | <p>Once the server reboots, it will reboot from the TPD media and a boot prompt shall be displayed. IPM the server using the following command <u>exactly</u> as shown below<br/> <i>Note: no space between the HWRAID, comma, and force: HWRAID,force</i></p> <pre>TPDnoraid diskconfig=HWRAID,force console=tty0</pre>  <p>The screenshot shows the following text:</p> <pre>Copyright (C) 2003, 2015, Oracle and/or its affiliates. All rights reserved.  Welcome to Tekelec Platform Distribution! Release: 7.0.2.0.0_86.34.0 Arch: x86_64  For a detailed description of all the supported commands and their options, please refer to the Initial Platform Manufacture document for this release. In addition to linux &amp; rescue TPD provides the following kickstart profiles:  [ TPD   TPDnoraid   TPDlvm   TPDcompact   HDD ]  Commonly used options are:  [ console=&lt;console_option&gt;[,&lt;console_option&gt;] ] [ primaryConsole=&lt;console_option&gt; ] [ rdate=&lt;server_ip&gt; ] [ scrub ] [ reserved=&lt;size1&gt;[,&lt;sizeN&gt;] ] [ diskconfig=HWRAID[,force] ] [ drives=&lt;device&gt;[,device] ] [ guestArchive ]  To install using a monitor and a local keyboard, add console=tty0  boot: _</pre> |

Appendix F.1: Installing Operating Systems with ILO

| Step                                      | Procedure  | Result   |
|---|--|--|
| <p>5.</p> <p><input type="checkbox"/></p> | <p><i>Platform installation Complete</i></p> <p><i>When you are finished using the mounted drive, unmount it by...</i></p> <p>1) running <b>umount</b></p> <p>2) Selecting <b>Virtual Drives</b> menu and clicking the drive option in use to remove its check mark.</p> | <p>Platform installation process takes about 30 minutes, you will see several messages and screens in the process.</p> <p>Once the Platform installation is complete, you will be prompted to press Enter as shown in second screen shot below. (Note: unmount before selecting “Enter”)</p> <p><b>Remove the USB drive or unmount the ISO image from the iLO and press <b>Enter</b> to reboot the server.</b> Note that the CD may eject automatically.</p> <pre># umount /dev/&lt;device_name&gt;</pre>   |

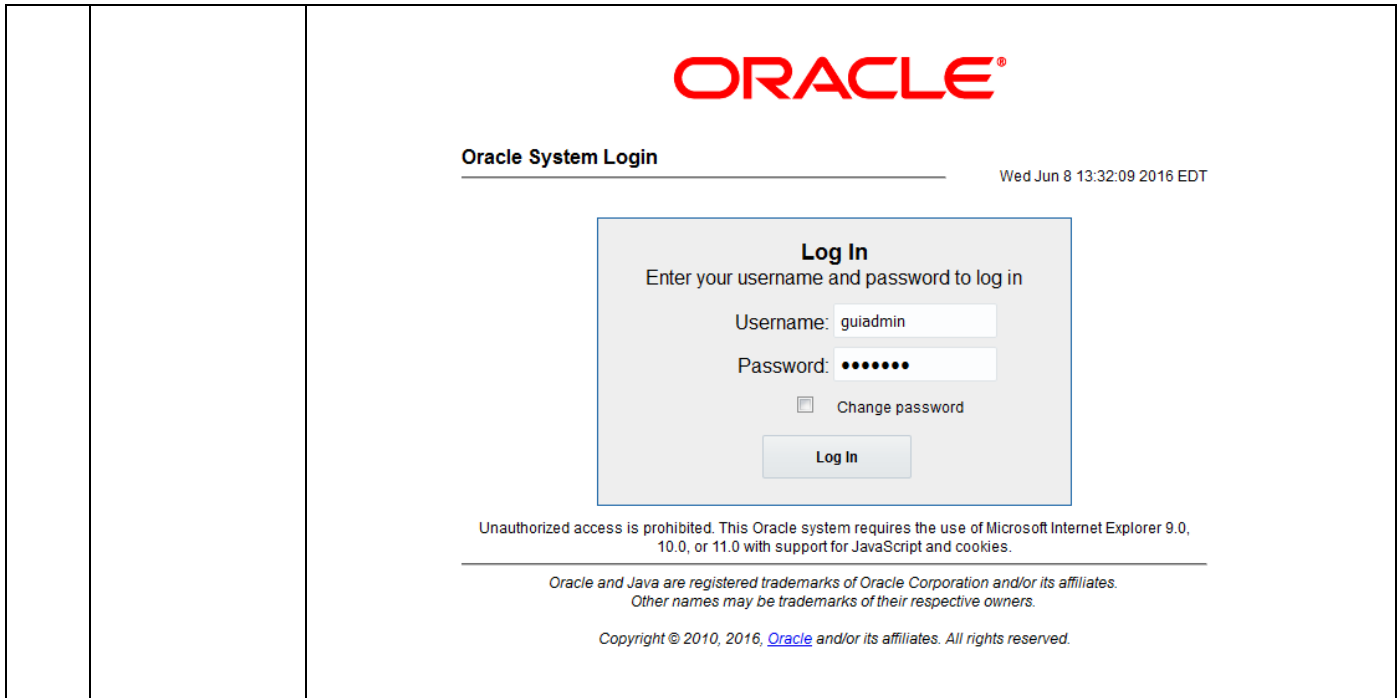
Appendix F.1: Installing Operating Systems with ILO

| Step                                     | Procedure   | Result  |
|--|---|---|
| 6.<br><input type="checkbox"/>           | Server Reboot   | Once the management server reboots, you should see a login prompt. Note that during the first system boot, swap files may be initialized and activated. Each swap file will take about 2 minutes. |
| 7.<br><input type="checkbox"/>           | Verify that the TPD release is 7.0.2.x  | # <code>getPlatRev</code><br>7.0.2.0.0-86.34.0  |
| 8.<br><input type="checkbox"/>           | Execute "alarmMgr" command to verify health of the server before Application install.             | # <code>alarmMgr --alarmStatus</code><br><br><i>NOTE: This command should return no output on a healthy system.</i>   |
| 9.<br><input type="checkbox"/>           | Execute "verifyIPM" as a secondary way to verify health of the server before Application install. | # <code>verifyIPM</code><br><br><i>NOTE: This command should return no output on a healthy system.</i>  |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |   |

F.2 Installing Operating Systems with PM&C

Appendix F.2: Installing Operating Systems with PM&C

| Step                           | Procedure                      | Result   |
|--------------------------------|--------------------------------|--|
| 1.<br><input type="checkbox"/> | PM&C GUI:<br>Login to PM&C GUI | Open web browser and enter: <a href="https://&lt;pmac_management_network_ip&gt;">https://&lt;pmac_management_network_ip&gt;</a><br><br>Login as guiadmin user. |



2.

**PM&C GUI:**  
Select...

**Main Menu**  
→ Software  
→ Software Inventory

...as shown on the right.

Main Menu: Software -> Software Inventory

Filter\*

| Identity  | IP Address  | Hostname      | Platform Name | Platform Version  | Application Name | Application Version |
|---|-------------|---------------|---------------|-------------------|------------------|---------------------|
| RMS: <a href="#">Verona-RMS1</a>  |             |               |               |                   |                  |                     |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona-pmac-1</a> | 192.168.1.1 | verona-pmac-1 | TPD (x86_64)  | 7.2.0.0.0-88.21.0 | PMAC             | 6.2.0.0.0_62.19.0   |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_1</a>   |             |               |               |                   |                  |                     |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_2</a>   |             |               |               |                   |                  |                     |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_no_a</a>   |             |               |               |                   |                  |                     |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_so_a</a>   |             |               |               |                   |                  |                     |
|   | 192.168.1.5 | verona-tvoe-1 | TPD (x86_64)  | 7.2.0.0.0-88.21.0 | TVOE             | 3.2.0.0.0_88.21.0   |

3.

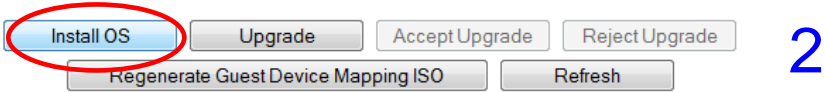
**PM&C GUI:**  
1) Highlight the desired servers based on its **hardware Identity**...

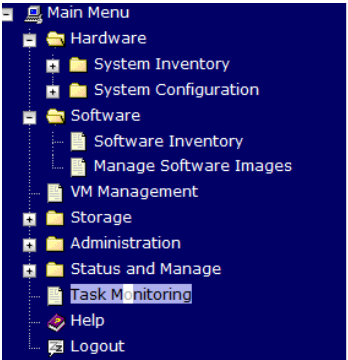
**Note:** You may select multiple blades/servers for simultaneous upgrade to the same release by holding the **Ctrl** (Control) key while selecting lines with the mouse.

Software Inventory

Filter

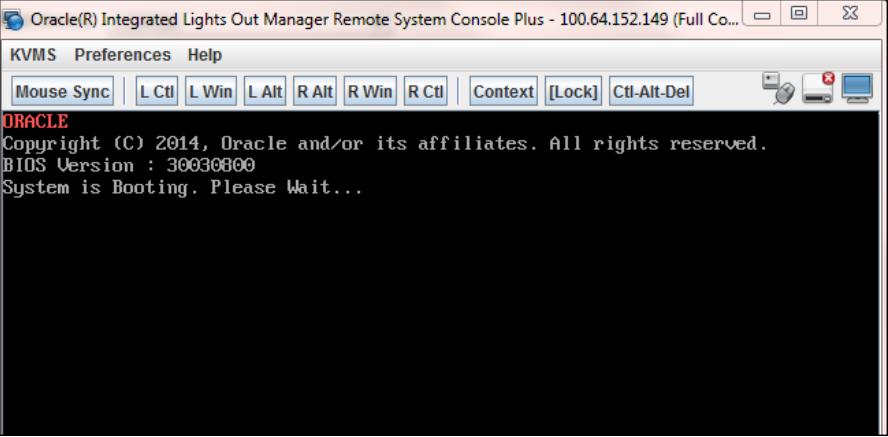
| Ident  | IP Address    | Hostname             | Plat Name    | Plat Version     | App  |
|--|---------------|----------------------|--------------|------------------|------|
| Enc: <a href="#">11901 Bay:1F</a>                                      | 192.168.1.132 | hostname2486a3ab0f86 | TPD (x86_64) | 6.7.0.0.0-84.8.0 |      |
| Enc: <a href="#">11901 Bay:3F</a>                                      | 192.168.1.131 | hostname4ac7d19a257e | TPD (x86_64) | 6.7.0.0.0-84.8.0 |      |
| Enc: <a href="#">11901 Bay:5F</a>                                      | 192.168.1.133 | BL119111305-TVOE     | TPD (x86_64) | 6.7.0-84.7.0     | TVOE |
| Enc: <a href="#">11901 Bay:5F</a><br>Guest: <a href="#">UDR_S2_MP1</a> |               |                      |              |                  |      |
| Enc: <a href="#">11901 Bay:5F</a><br>Guest: <a href="#">UDR_S2_MP2</a> |               |                      |              |                  |      |
| Enc: <a href="#">11901 Bay:5F</a><br>Guest: <a href="#">UDR_SO_2A</a>  |               |                      |              |                  |      |
| Enc: <a href="#">11901 Bay:6F</a>                                      | 192.168.1.130 | BL119111306-TVOE     | TPD (x86_64) | 6.7.0-84.7.0     | TVOE |
| Enc: <a href="#">11901 Bay:6F</a><br>Guest: <a href="#">UDR_S2_MP3</a> |               |                      |              |                  |      |

|  | <p>2) Click on the <b>Install OS</b> button.</p>  |    |          |              |              |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|--|----------|--------------|--------------|----------------|--|---------------------|--------|--------|----------------------|------|--------------|-------------|--|--|---|----------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <p>4. <input type="checkbox"/></p>                 | <p><b>PM&amp;C GUI:</b></p> <p>1) Select the desired <b>Image Name</b> of the OS software.</p> <p>2) Click on the <b>Start Software Install</b> button.</p> <p>3) Click on the popup dialog box <b>OK</b> button.</p> | <p><b>Software Install - Select Image</b></p> <table border="1"> <thead> <tr> <th colspan="2">Targets</th> <th colspan="4">Select Image</th> </tr> <tr> <th>Entity</th> <th>Status</th> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Host: pc9000705-tvoe<br/>Guest: <a href="#">MP1</a></td> <td></td> <td>TPD_install-7.0.1.0.0_86.17.0-OracleLinux6.6-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td>Host: pc9000705-tvoe<br/>Guest: <a href="#">NOA</a></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Host: pc9000705-tvoe<br/>Guest: <a href="#">SOA</a></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p><b>Start Software Install</b> (highlighted with a red circle)</p> <p>2</p> <div> <p>You have selected to install a bootable OS iso on the selected targets.</p> <p>The following targets already have an Application:</p> <p>Enc:11901 Bay:5F ==&gt; TVOE<br/>             Enc:11901 Bay:6F ==&gt; TVOE<br/>             Enc:11902 Bay:5F ==&gt; TVOE<br/>             Enc:11902 Bay:6F ==&gt; TVOE</p> <p>Are you sure you want to install TVOE-2.7.0.0.0_84.8.0-x86_64 on the listed entities?</p> <p>OK Cancel</p> </div> <p>3</p> | Targets  |              | Select Image |                |  |                     | Entity | Status | Image Name           | Type | Architecture | Description | Host: pc9000705-tvoe<br>Guest: <a href="#">MP1</a> |  | TPD_install-7.0.1.0.0_86.17.0-OracleLinux6.6-x86_64 | Bootable | x86_64 |  | Host: pc9000705-tvoe<br>Guest: <a href="#">NOA</a> |  |  |  |  |  | Host: pc9000705-tvoe<br>Guest: <a href="#">SOA</a> |  |  |  |  |  |
| Targets  |   | Select Image   |          |              |              |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Entity   | Status  | Image Name   | Type     | Architecture | Description  |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Host: pc9000705-tvoe<br>Guest: <a href="#">MP1</a> |   | TPD_install-7.0.1.0.0_86.17.0-OracleLinux6.6-x86_64  | Bootable | x86_64       |              |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Host: pc9000705-tvoe<br>Guest: <a href="#">NOA</a> |   |  |          |              |              |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Host: pc9000705-tvoe<br>Guest: <a href="#">SOA</a> |   |  |          |              |              |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <p>5. <input type="checkbox"/></p>                 | <p><b>PM&amp;C GUI:</b></p> <p>Upgrade Tasks will appear for each upgrade started this way under the left column <b>Status</b>.</p>   | <p><b>Software Upgrade - Select Image</b></p> <table border="1"> <thead> <tr> <th>Entity</th> <th>Status</th> <th>Image Name</th> </tr> </thead> <tbody> <tr> <td>Enc:701 Bay:1F</td> <td>Task 116 (highlighted with a red circle)</td> <td>872-2525-101-2.5...</td> </tr> <tr> <td></td> <td></td> <td>872-2553-101-10.0...</td> </tr> </tbody> </table>   | Entity   | Status       | Image Name   | Enc:701 Bay:1F | Task 116 (highlighted with a red circle) | 872-2525-101-2.5... |        |        | 872-2553-101-10.0... |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Entity   | Status  | Image Name   |          |              |              |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Enc:701 Bay:1F                                     | Task 116 (highlighted with a red circle)  | 872-2525-101-2.5...  |          |              |              |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |   | 872-2553-101-10.0...   |          |              |              |                |  |                     |        |        |                      |      |              |             |  |  |   |          |        |  |  |  |  |  |  |  |  |  |  |  |  |  |

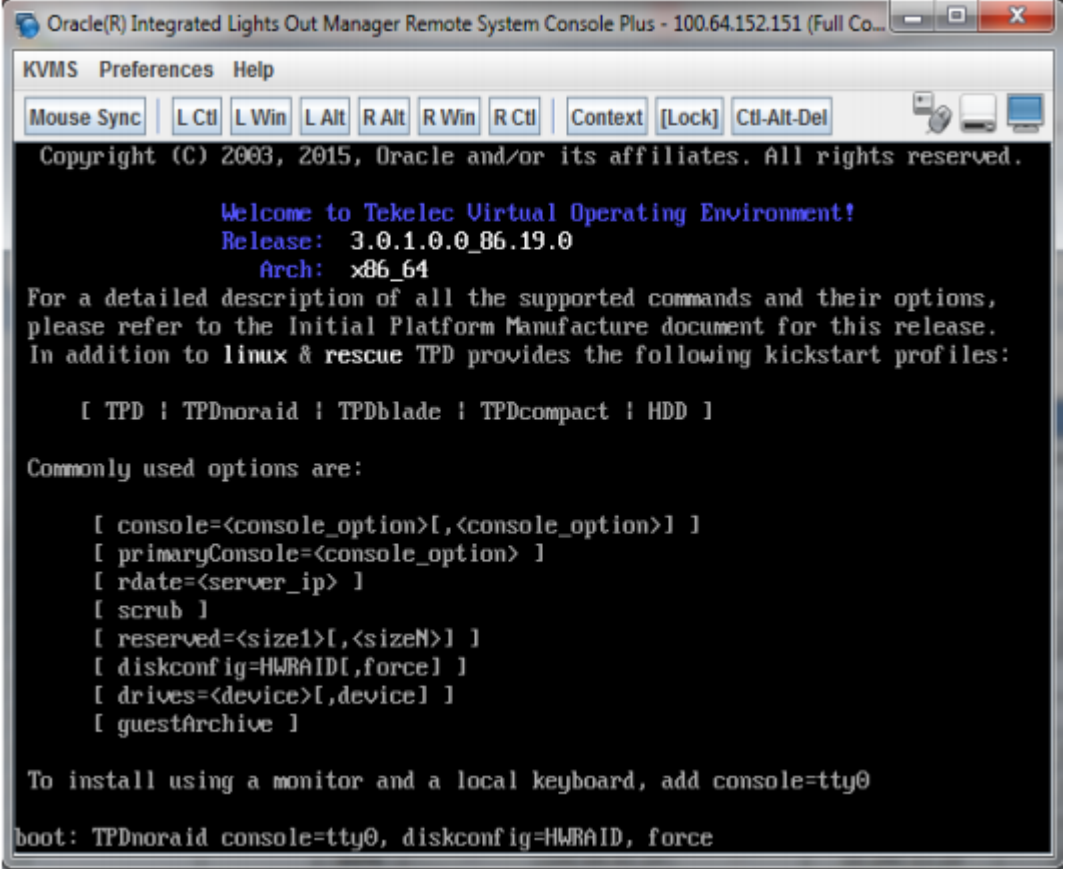
| <p>6.</p> <input type="checkbox"/>  | <p><b>PM&amp;C GUI:</b><br/>Select...</p> <p><b>Main Menu</b>→Task Monitoring</p> <p>...as shown on the right.</p> <p><i>Note: Install tasks may be monitored for completion on this screen.</i></p> |  <div style="border: 1px solid gray; padding: 5px;"> <p><b>Background Task Monitoring</b></p> <p>Filter ▾</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>125</td> <td>Install OS</td> <td>Enc:701 Bay:4F<br/>Guest: SO-B</td> <td>Waiting for target server to boot</td> </tr> <tr> <td>124</td> <td>Install OS</td> <td>Enc:701 Bay:4F<br/>Guest: MP-3</td> <td>Waiting for target server to boot</td> </tr> <tr> <td>123</td> <td>Install OS</td> <td>Enc:701 Bay:3F<br/>Guest: SO-A</td> <td>Waiting for target server to boot</td> </tr> <tr> <td>122</td> <td>Install OS</td> <td>Enc:701 Bay:3F<br/>Guest: MP-1</td> <td>Waiting for target server to boot</td> </tr> <tr> <td>121</td> <td>Upgrade</td> <td>Enc:701 Bay:2F</td> <td>Success</td> </tr> </tbody> </table> </div> | ID   | Task | Target | Status | 125 | Install OS | Enc:701 Bay:4F<br>Guest: SO-B | Waiting for target server to boot                | 124 | Install OS | Enc:701 Bay:4F<br>Guest: MP-3 | Waiting for target server to boot                | 123 | Install OS | Enc:701 Bay:3F<br>Guest: SO-A | Waiting for target server to boot                | 122 | Install OS | Enc:701 Bay:3F<br>Guest: MP-1 | Waiting for target server to boot | 121 | Upgrade | Enc:701 Bay:2F | Success |
|---|--|--|--|------|--------|--------|-----|------------|-------------------------------|--|-----|------------|-------------------------------|--|-----|------------|-------------------------------|--|-----|------------|-------------------------------|-----------------------------------|-----|---------|----------------|---------|
| ID  | Task   | Target   | Status   |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| 125   | Install OS   | Enc:701 Bay:4F<br>Guest: SO-B  | Waiting for target server to boot                |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| 124   | Install OS   | Enc:701 Bay:4F<br>Guest: MP-3  | Waiting for target server to boot                |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| 123   | Install OS   | Enc:701 Bay:3F<br>Guest: SO-A  | Waiting for target server to boot                |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| 122   | Install OS   | Enc:701 Bay:3F<br>Guest: MP-1  | Waiting for target server to boot                |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| 121   | Upgrade  | Enc:701 Bay:2F   | Success  |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| <p>7.</p> <input type="checkbox"/>  | <p><b>PM&amp;C GUI:</b></p> <p>Look for install completion in the <b>Status</b> column.</p>  | <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>173</td> <td>Install OS</td> <td>Enc:701 Bay:4F<br/>Guest: SO-B</td> <td>Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64</td> </tr> <tr> <td>172</td> <td>Install OS</td> <td>Enc:701 Bay:4F<br/>Guest: MP-3</td> <td>Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64</td> </tr> <tr> <td>171</td> <td>Install OS</td> <td>Enc:701 Bay:3F<br/>Guest: SO-A</td> <td>Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64</td> </tr> </tbody> </table>   | ID   | Task | Target | Status | 173 | Install OS | Enc:701 Bay:4F<br>Guest: SO-B | Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64 | 172 | Install OS | Enc:701 Bay:4F<br>Guest: MP-3 | Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64 | 171 | Install OS | Enc:701 Bay:3F<br>Guest: SO-A | Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64 |     |            |                               |                                   |     |         |                |         |
| ID  | Task   | Target   | Status   |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| 173   | Install OS   | Enc:701 Bay:4F<br>Guest: SO-B  | Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64 |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| 172   | Install OS   | Enc:701 Bay:4F<br>Guest: MP-3  | Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64 |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| 171   | Install OS   | Enc:701 Bay:3F<br>Guest: SO-A  | Done: TPD.install-6.5.0_82.22.0-CentOS6.4-x86_64 |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| <p><b>Execute steps 8-9 for all Gen9 installations EXCEPT for “Normal Capacity SO/MP Host Installs”</b></p> |  |  |  |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| <p>8.</p> <input type="checkbox"/>  | <p><i>TVOE Console:</i><br/>Run <code>vgscan</code></p>  | <p>Run the following command on <b>Gen9</b> server only:</p> <pre># vgscan</pre> <p>Reading all physical volumes. This may take a while...</p> <p>Found volume group "vgroot" using metadata type lvm2</p>   |  |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| <p>9.</p> <input type="checkbox"/>  | <p><i>TVOE console:</i><br/>Execute the following <code>syscheck/restart</code> steps in order</p>   | <pre># syscheck --reconfig disk smart # service smartd restart # syscheck disk smart</pre>   |  |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>   |  |  |  |      |        |        |     |            |                               |  |     |            |                               |  |     |            |                               |  |     |            |                               |                                   |     |         |                |         |

### F.3 Installing Operating Systems with ILO for Oracle RMS

#### Appendix F.3: Installing Operating Systems with ILO for Oracle RMS

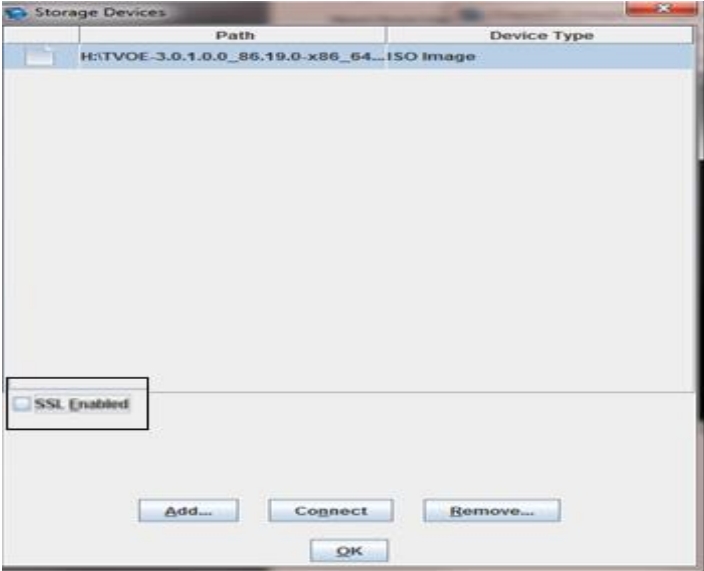
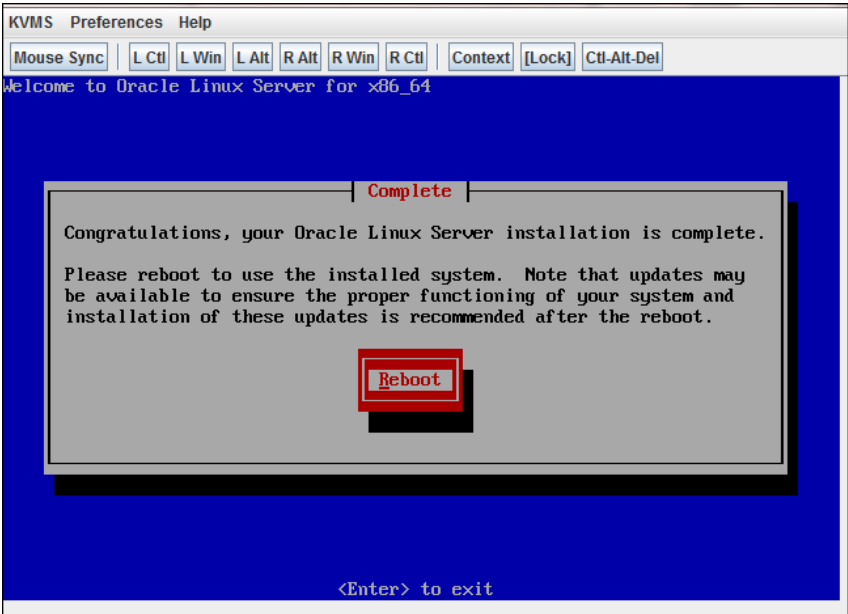
| Step   | Procedure  | Result   |
|--|--|--|
| <p>1.</p> <input type="checkbox"/> | <p><i>Mount the media containing the OS software.</i></p>  | <p>Follow steps defined in ...</p> <p>Appendix C.3 Mounting Virtual Media on Oracle RMS Servers ... to mount the OS software.</p>  |
| <p>2.</p> <input type="checkbox"/> | <p><i>iLO Console window</i></p> <p><i>Login as root user</i></p> <p><i>Initiate a reboot of the server.</i></p> | <pre># reboot</pre> <p>The system is going down for reboot NOW!</p>  <p>The screenshot shows a terminal window titled "Oracle(R) Integrated Lights Out Manager Remote System Console Plus - 100.64.152.149 (Full Co...". The window has a menu bar with "KVMS", "Preferences", and "Help". Below the menu bar are several keyboard shortcuts: "Mouse Sync", "L Ctl", "L Win", "L Alt", "R Alt", "R Win", "R Ctl", "Context", "[Lock]", and "Ctl-Alt-Del". The terminal output shows the command "# reboot" being entered, followed by the message "The system is going down for reboot NOW!". Below this, the system boots, displaying "ORACLE" in red, "Copyright (C) 2014, Oracle and/or its affiliates. All rights reserved.", "BIOS Version : 30030800", and "System is Booting. Please Wait...".</p> |

Appendix F.3: Installing Operating Systems with ILO for Oracle RMS

| Step   | Procedure   | Result  |
|--|---|---|
| <p>3.</p> <input type="checkbox"/> | <p><i>Begin Platform Installation process</i></p> | <p>Once the server reboots, it will reboot from the TPD media and a boot prompt shall be displayed. IPM the server using the following command <u>exactly</u> as shown below (no space between HWRAID and force):</p> <p><code>TPDnoraid console=tty0, diskconfig=HWRAID,force</code></p>  |



Appendix F.3: Installing Operating Systems with ILO for Oracle RMS

| Step                                      | Procedure  | Result   |
|---|--|--|
| <p>4.</p> <p><input type="checkbox"/></p> | <p><i>Platform installation Complete</i></p> <p><b>Uncheck SSL Enabled</b> checkbox before disconnecting (if not done already)</p> <p><i>From iLO console:</i></p> <p><i>To Disconnect the ISO image:</i></p> <p><i>Go to KVMS/Storage and select "Disconnect"</i></p> | <p>Platform installation process takes about 30 minutes, you will see several messages and screens in the process. Once the Platform installation is complete, you will be prompted to press "Enter" as shown in second diagram.</p> <p><b>Disconnect the ISO image from the iLO</b> and press <b>Enter</b> to reboot the server.</p>   |
| <p>5.</p> <p><input type="checkbox"/></p> | <p><i>Post Server Reboot</i></p>   | <p>Once the management server reboots, you should see a login prompt. Note that during the first system boot, swap files may be initialized and activated. Each swap file will take about 2 minutes. Log back into the system as root.</p>   |

Appendix F.3: Installing Operating Systems with ILO for Oracle RMS

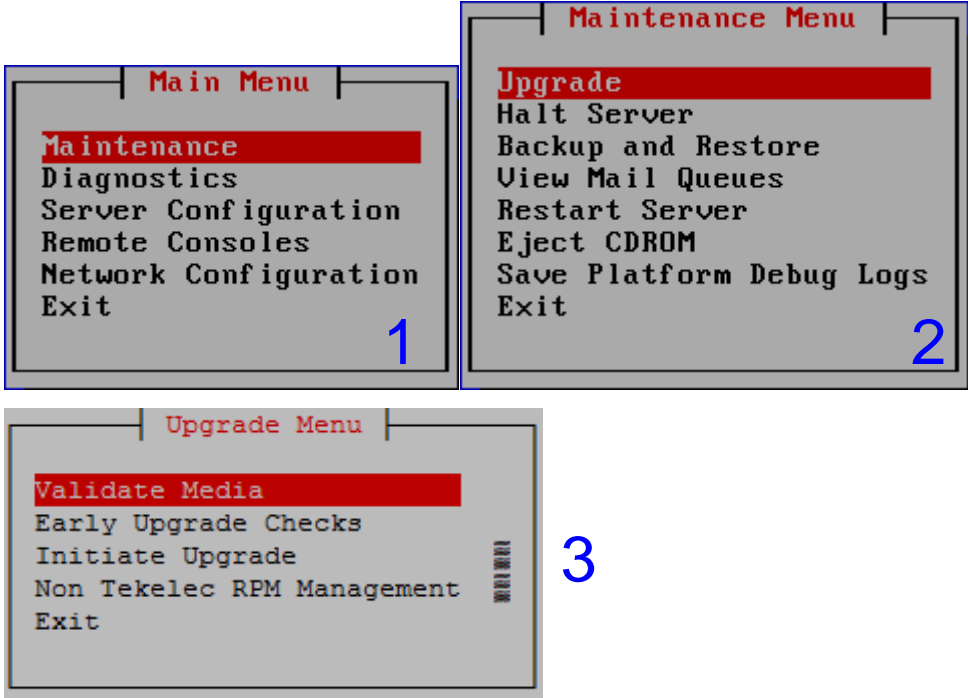
| Step  | Procedure   | Result  |
|---|---|---|
| <p>6.</p> <input type="checkbox"/>              | <p>Verify that the TPD release is <b>7.0.2.x</b>.</p>   | <pre># getPlatRev 7.0.2.0.0-86.34.0</pre>   |
| <p>7.</p> <input type="checkbox"/>              | <p>Execute <b>“alarmMgr”</b> command to verify health of the server before Application install.</p>             | <pre># alarmMgr --alarmStatus</pre> <p><i>NOTE: This command should return no output on a healthy system.</i></p> |
| <p>8.</p> <input type="checkbox"/>              | <p>Execute <b>“verifyIPM”</b> as a secondary way to verify health of the server before Application install.</p> | <pre># verifyIPM</pre> <p><i>NOTE: This command should return no output on a healthy system.</i></p>              |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |   |   |

## Appendix G. Installing Oracle Communications User Data Repository Application

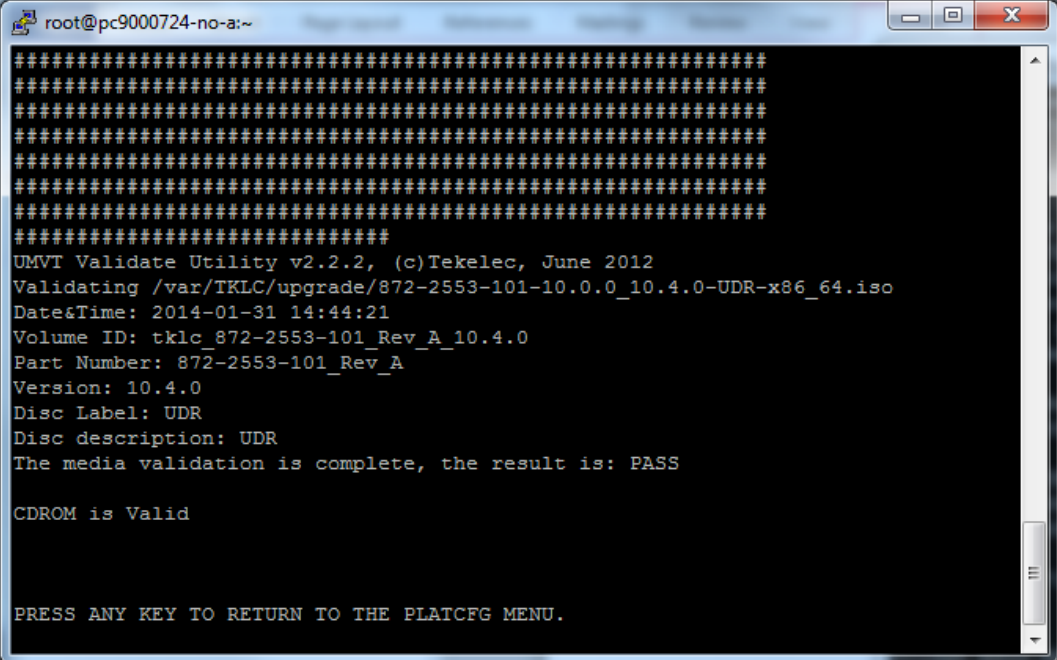
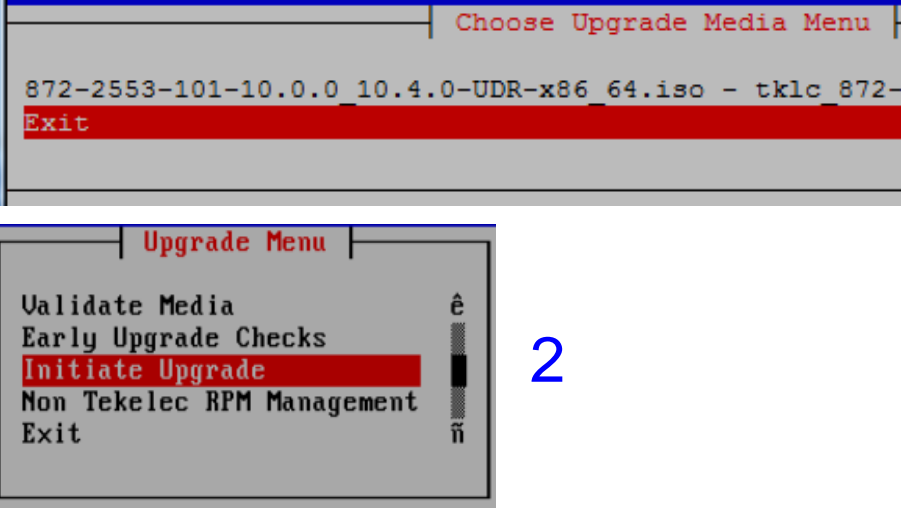
This procedure contains steps to apply server configuration scripts to rack mount servers.

### G.1 Installing Oracle Communications User Data Repository Application with ILO

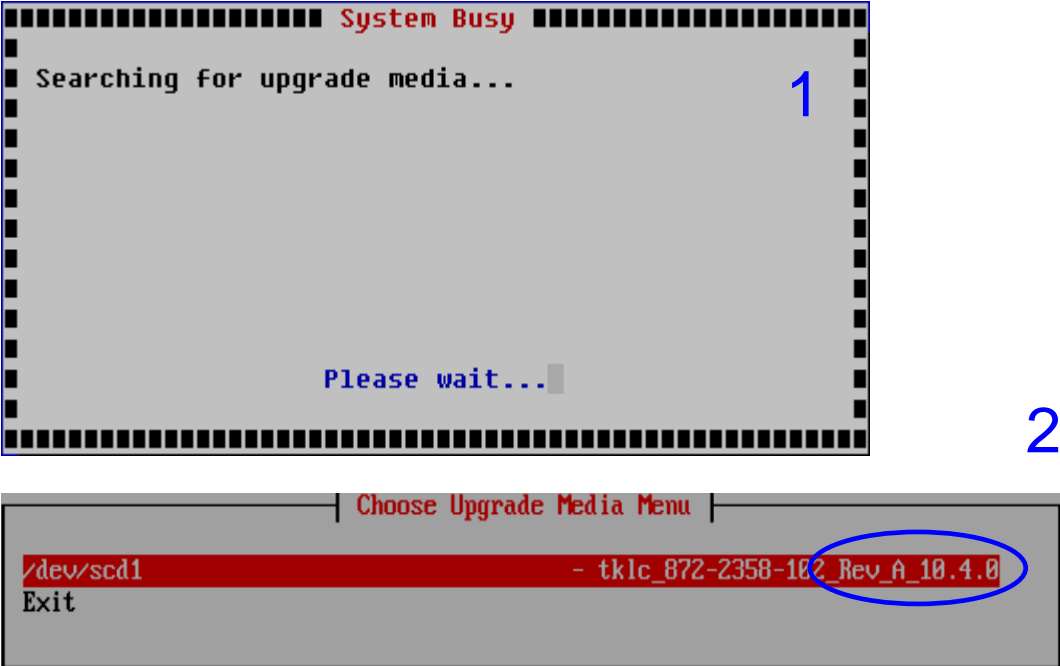
#### Appendix G.1: Install Oracle Communications User Data Repository Application with ILO

| Step                           | Procedure   | Result  |
|--------------------------------|---|---|
| 1.<br><input type="checkbox"/> | Access the HP server's console.   | Connect to the HP server's console using one of the access methods described in <b>Section 2.1.2</b> .  |
| 2.<br><input type="checkbox"/> | Mount the media containing the software.  | Follow steps defined in...<br><br><b>Appendix C.1</b> Mounting Physical Media on HP Servers<br><br>or<br><br><b>Appendix C.2</b> Mounting Virtual Media on HP Servers<br><br>...to mount the Oracle Communications User Data Repository software.   |
| 3.<br><input type="checkbox"/> | Login to the "platcfg" utility.   | [root@hostname1260476221 ~]# <b>su - platcfg</b>  |
| 4.<br><input type="checkbox"/> | From the "platcfg" Main Menu...<br><br>Select each option as shown on the right, pressing the <ENTER> key after each selection. |  <p>The screenshots illustrate the navigation through the platcfg utility:</p> <ul style="list-style-type: none"> <li><b>1. Main Menu:</b> Shows options: Maintenance (highlighted), Diagnostics, Server Configuration, Remote Consoles, Network Configuration, and Exit.</li> <li><b>2. Maintenance Menu:</b> Shows options: Upgrade (highlighted), Halt Server, Backup and Restore, View Mail Queues, Restart Server, Eject CDROM, Save Platform Debug Logs, and Exit.</li> <li><b>3. Upgrade Menu:</b> Shows options: Validate Media (highlighted), Early Upgrade Checks, Initiate Upgrade, Non Tekelec RPM Management, and Exit.</li> </ul> |

Appendix G.1: Install Oracle Communications User Data Repository Application with ILO

| Step                                      | Procedure  | Result  |
|---|--|---|
| <p>5.</p> <p><input type="checkbox"/></p> | <p>From the “platcfg” Main Menu...</p> <p>Verify “CDROM is Valid.”</p> <p>..... then press any key to return to platcfg menu.</p>            |   |
| <p>6.</p> <p><input type="checkbox"/></p> | <p>From the “platcfg” Main Menu...</p> <p>Select each option as shown on the right, pressing the &lt;ENTER&gt; key after each selection.</p> |  |

Appendix G.1: Install Oracle Communications User Data Repository Application with ILO

| Step   | Procedure   | Result   |
|--|---|--|
| <p>7.</p> <input type="checkbox"/>   | <p>Verify that the Application release level shown matches the target release.</p>                      |    |
| <p>8.</p> <input type="checkbox"/> | <p>Output similar to that shown on the right may be observed as the 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> |

Appendix G.1: Install Oracle Communications User Data Repository Application with ILO

| Step                                | Procedure   | Result  |
|-------------------------------------|---|---|
| <p>9.</p> <input type="checkbox"/>  | <p>Output similar to that shown on the right may be observed as the Application install progresses.</p>         | <pre>Adding /usr/TKLC/plat/etc/rpm.d/plat.TKLCplat.macro to /etc/rpm/macros... [ OK ] Adding /usr/TKLC/plat/etc/rpm.d/plat.TPD-provd.macro to /etc/rpm/macros... [ OK ] Updating /etc/rpm/macros...  Now dispatching /mnt/upgrade/upgrade/ugwrap --noexecdispatch OK ] Initializing Upgrade Wrapper... package TKLCappworks is not installed TKLCappworks is not installed, therefore this must be an initial install. Validating Distribution... Validating cdrom... ##### #####</pre>   |
| <p>10.</p> <input type="checkbox"/> | <p>Output similar to that shown on the right may be observed as the server initiates a post-install reboot.</p> | <pre>scsi7 : SCSI emulation for USB Mass Storage devices scsi8 : SCSI emulation for USB Mass Storage devices input: Intel(R) Multidevice as /class/input/input3 input: USB HID v1.01 Mouse [Intel(R) Multidevice] on usb-0000:00:1d.3-1 input: Intel(R) Multidevice as /class/input/input4 input: USB HID v1.01 Keyboard [Intel(R) Multidevice] on usb-0000:00:1d.3-1 Restarting system. - machine restart █</pre>  |
| <p>11.</p> <input type="checkbox"/> | <p>After the server has completed reboot...<br/><br/>Log back into the server as the "root" user.</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:root Password: &lt;root_password&gt;</pre>   |
| <p>12.</p> <input type="checkbox"/> | <p>Output similar to that shown on the right will appear as the server returns to a command prompt.</p>         | <pre>*** TRUNCATED OUTPUT ***   =====    This system has been upgraded but the upgrade has not yet     been accepted or rejected. Please accept or reject the     upgrade soon.    =====   VPATH=/opt/TKLCcomcol/runcm7.2.0:/opt/TKLCcomcol/cm7.2.0 PRODPATH= RELEASE=7.2.0 RUNID=00  VPATH=/var/TKLC/runbdb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC/awpcommo n:/usr/TKLC/awptransportmgr:/usr/TKLC/comagent-gui:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/awpss7:/usr/TKLC/ccl:/usr/TKLC/dpi:/usr/ TKLC/capm/prod/plugins PRODPATH=/opt/comcol/prod RUNID=00 root@hostname1260476221 ~]#</pre> |

Appendix G.1: Install Oracle Communications User Data Repository Application with ILO

| Step  | Procedure  | Result  |
|---|--|---|
| <p>13.</p> <input type="checkbox"/>             | <p>Verify successful upgrade.</p> <p>Command will generate no output if no issues are found.</p> | <p># <b>verifyUpgrade</b></p> <p><i>NOTE: This command should return no output on a healthy system.</i></p>   |
| <p>14.</p> <input type="checkbox"/>             | <p>Verify that the Application release level shown matches the target release.</p>               | <pre>[admusr@BL908050101-no-a ~]\$ appRev       Install Time: Mon Jan 22 07:09:35 2018       Product Name: UDR       Product Release: 12.4.0.0.0_16.13.0       Base Distro Product: TPD       Base Distro Release: 7.5.0.0.0_88.45.0       Base Distro ISO: TPD.install-7.5.0.0.0_88.45.0-OracleLinux6.9-x86_64.iso       ISO name: UDR-12.4.0.0.0_16.13.0-x86_64.iso       OS: OracleLinux 6.9</pre> |
| <p>15.</p> <input type="checkbox"/>             | <p><b>TVOE Management Server iLO:</b></p> <p>Reboot the server</p>                               | <p>Reboot the server:</p> <p># <b>init 6</b></p> <p>Wait until the reboot completes and re-login with TVOE root credentials.</p>  |
| <p>16.</p> <input type="checkbox"/>             | <p><b>TVOE Management Server iLO:</b></p> <p>Verify server health</p>                            | <p>Verify server health:</p> <p># <b>alarmMgr --alarmStatus</b></p> <p><i>Note: This command should return only one alarm related to pending upgrade acceptance.</i></p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |   |

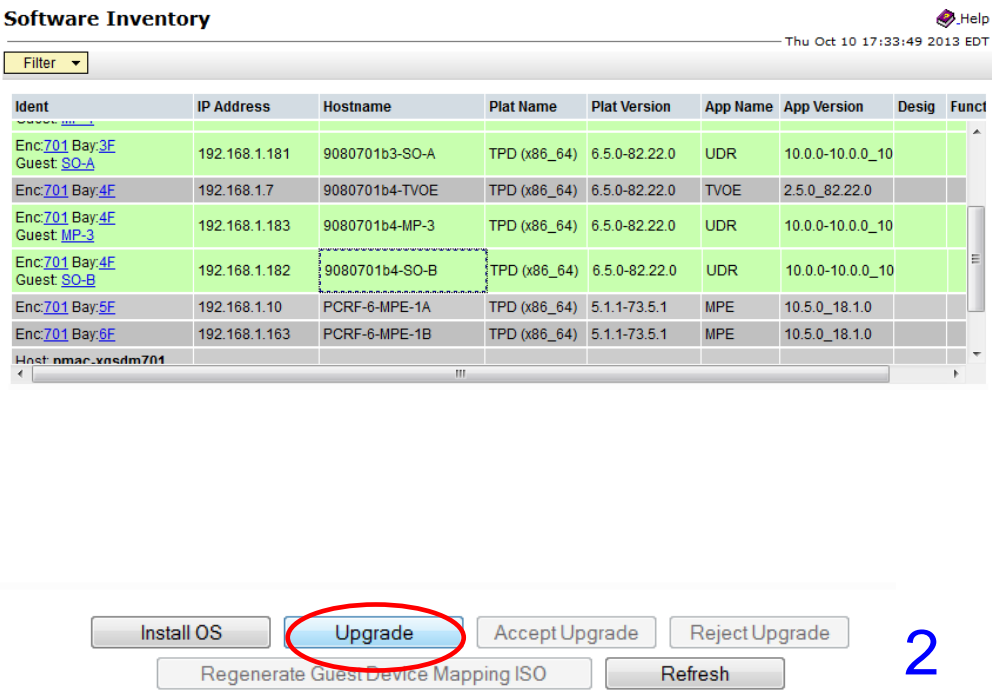
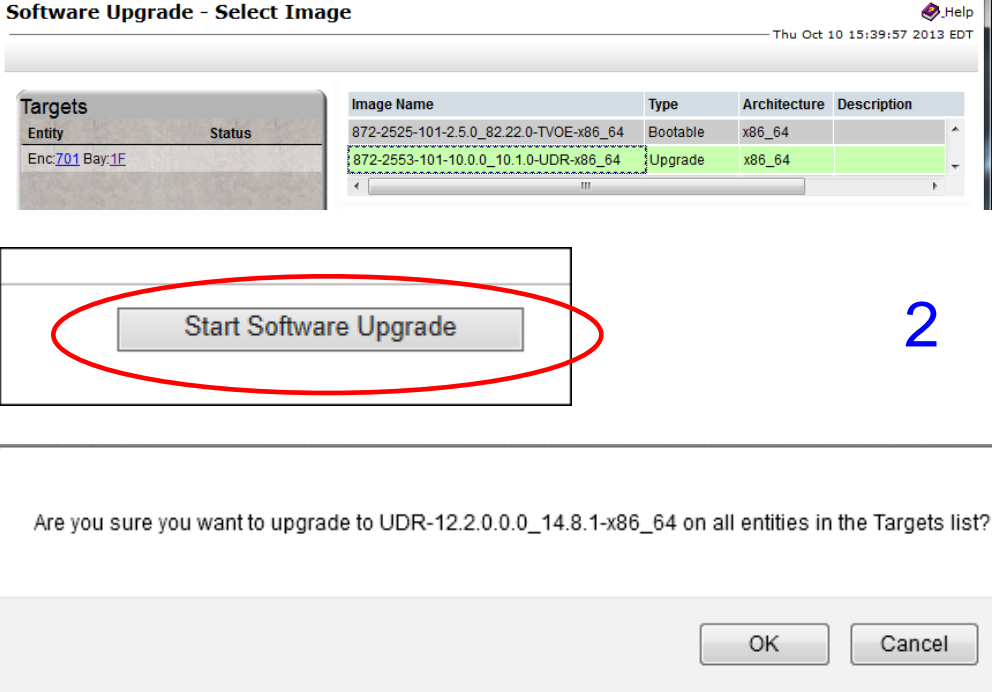
## G.2 Installing Oracle Communications User Data Repository Application with PM&C

### Appendix G.2: Installing Oracle Communications User Data Repository Application with PM&C

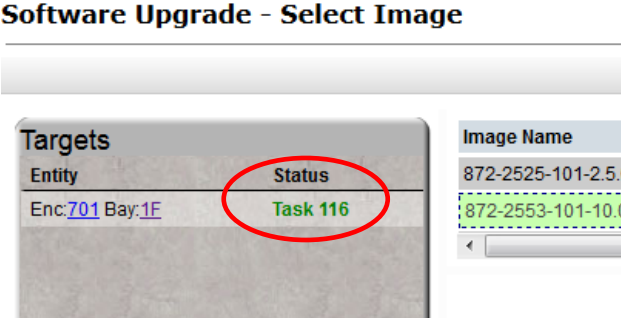
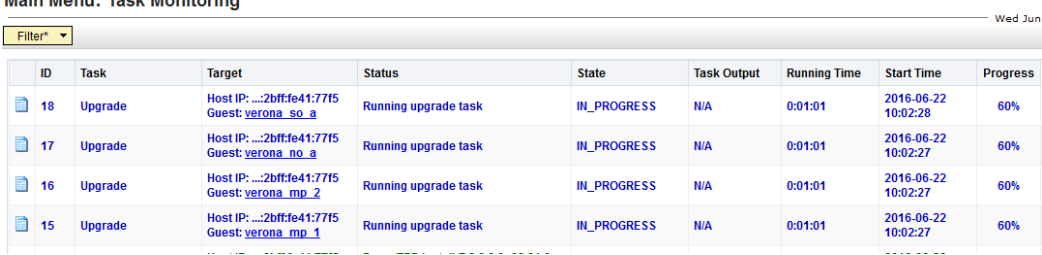
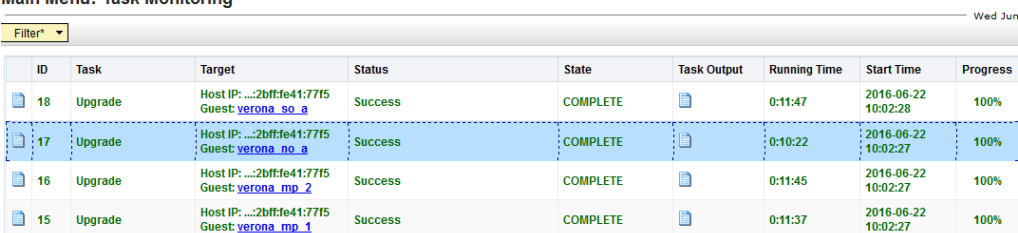
| Step  | Procedure   | Result   |               |                   |                  |                     |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
|---|---|--|---------------|-------------------|------------------|---------------------|------------------|------------------|---------------------|----------------------------------|--|--|--|--|--|--|---|-------------|---------------|--------------|-------------------|------|-------------------|---|--------------|----------------------|--------------|-------------------|--|--|---|--------------|----------------------|--------------|-------------------|--|--|---|--------------|----------------------|--------------|-------------------|--|--|---|--------------|----------------------|--------------|-------------------|--|--|--|-------------|---------------|--------------|-------------------|------|-------------------|
| <p>1.</p> <input type="checkbox"/>  | <p><b>PM&amp;C GUI:</b></p> <p>Login to PM&amp;C GUI</p>  | <p>Open web browser and enter: <a href="https://&lt;pmac_management_network_ip&gt;">https://&lt;pmac_management_network_ip&gt;</a></p> <p>Login as guiadmin user.</p>   |               |                   |                  |                     |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
| <p>2.</p> <input type="checkbox"/>  | <p><b>PM&amp;C GUI:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/> <b>→ Software</b><br/> <b>→ Software Inventory</b></p> <p>...as shown on the right.</p> | <p><b>Main Menu: Software -&gt; Software Inventory</b></p> <p>Filter* ▼</p> <table border="1"> <thead> <tr> <th>Identity</th> <th>IP Address</th> <th>Hostname</th> <th>Platform Name</th> <th>Platform Version</th> <th>Application Name</th> <th>Application Version</th> </tr> </thead> <tbody> <tr> <td>RMS: <a href="#">Verona-RMS1</a></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona-pmac-1</a></td> <td>192.168.1.1</td> <td>verona-pmac-1</td> <td>TPD (x86_64)</td> <td>7.2.0.0.0-88.21.0</td> <td>PMAC</td> <td>6.2.0.0.0_62.19.0</td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona_mp_1</a></td> <td>192.168.1.13</td> <td>hostname22cbb35bd380</td> <td>TPD (x86_64)</td> <td>7.2.0.0.0-88.21.0</td> <td></td> <td></td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona_mp_2</a></td> <td>192.168.1.14</td> <td>hostname347883e258b5</td> <td>TPD (x86_64)</td> <td>7.2.0.0.0-88.21.0</td> <td></td> <td></td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona_no_a</a></td> <td>192.168.1.11</td> <td>hostname0d60e2997196</td> <td>TPD (x86_64)</td> <td>7.2.0.0.0-88.21.0</td> <td></td> <td></td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona_so_a</a></td> <td>192.168.1.10</td> <td>hostname471c3182b861</td> <td>TPD (x86_64)</td> <td>7.2.0.0.0-88.21.0</td> <td></td> <td></td> </tr> <tr> <td></td> <td>192.168.1.5</td> <td>verona-tvoe-1</td> <td>TPD (x86_64)</td> <td>7.2.0.0.0-88.21.0</td> <td>TVOE</td> <td>3.2.0.0.0_88.21.0</td> </tr> </tbody> </table> | Identity      | IP Address        | Hostname         | Platform Name       | Platform Version | Application Name | Application Version | RMS: <a href="#">Verona-RMS1</a> |  |  |  |  |  |  | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona-pmac-1</a> | 192.168.1.1 | verona-pmac-1 | TPD (x86_64) | 7.2.0.0.0-88.21.0 | PMAC | 6.2.0.0.0_62.19.0 | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_1</a> | 192.168.1.13 | hostname22cbb35bd380 | TPD (x86_64) | 7.2.0.0.0-88.21.0 |  |  | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_2</a> | 192.168.1.14 | hostname347883e258b5 | TPD (x86_64) | 7.2.0.0.0-88.21.0 |  |  | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_no_a</a> | 192.168.1.11 | hostname0d60e2997196 | TPD (x86_64) | 7.2.0.0.0-88.21.0 |  |  | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_so_a</a> | 192.168.1.10 | hostname471c3182b861 | TPD (x86_64) | 7.2.0.0.0-88.21.0 |  |  |  | 192.168.1.5 | verona-tvoe-1 | TPD (x86_64) | 7.2.0.0.0-88.21.0 | TVOE | 3.2.0.0.0_88.21.0 |
| Identity  | IP Address  | Hostname   | Platform Name | Platform Version  | Application Name | Application Version |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
| RMS: <a href="#">Verona-RMS1</a>  |   |  |               |                   |                  |                     |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona-pmac-1</a> | 192.168.1.1   | verona-pmac-1  | TPD (x86_64)  | 7.2.0.0.0-88.21.0 | PMAC             | 6.2.0.0.0_62.19.0   |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_1</a>   | 192.168.1.13  | hostname22cbb35bd380   | TPD (x86_64)  | 7.2.0.0.0-88.21.0 |                  |                     |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_2</a>   | 192.168.1.14  | hostname347883e258b5   | TPD (x86_64)  | 7.2.0.0.0-88.21.0 |                  |                     |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_no_a</a>   | 192.168.1.11  | hostname0d60e2997196   | TPD (x86_64)  | 7.2.0.0.0-88.21.0 |                  |                     |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_so_a</a>   | 192.168.1.10  | hostname471c3182b861   | TPD (x86_64)  | 7.2.0.0.0-88.21.0 |                  |                     |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |
|   | 192.168.1.5   | verona-tvoe-1  | TPD (x86_64)  | 7.2.0.0.0-88.21.0 | TVOE             | 3.2.0.0.0_88.21.0   |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                   |      |                   |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |   |              |                      |              |                   |  |  |  |             |               |              |                   |      |                   |



Appendix G.2: Installing Oracle Communications User Data Repository Application with PM&C

| Step                                      | Procedure  | Result   |              |               |          |                  |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
|---|--|--|--------------|---------------|----------|------------------|--------------|------------------------|--|----------|--------|------------------------------|---------------|---------------------------------------|--------------|---------------|-----|------------------|--|--|------------------------------|-------------|----------------|--------------|---------------|------|---------------|--|--|------------------------------|---------------|----------------|--------------|---------------|-----|------------------|--|--|----------------|--------------|---------------|--------------|--------------|-----|---------------|--|--|----------------|---------------|---------------|--------------|--------------|-----|---------------|--|--|
| <p>3.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>1) Highlight the desired server or servers based on the Guest name and hardware host <b>Identity</b>...</p> <p><i>Note: You may select multiple servers for simultaneous upgrade to the same release by holding the <b>Ctrl</b> (Control) key while selecting lines with the mouse.</i></p> <p>2) Click on the <b>Upgrade</b> button.</p> |  <p><b>Software Inventory</b> <span style="float: right;">.Help<br/>Thu Oct 10 17:33:49 2013 EDT</span></p> <p>Filter</p> <table border="1"> <thead> <tr> <th>Ident</th> <th>IP Address</th> <th>Hostname</th> <th>Plat Name</th> <th>Plat Version</th> <th>App Name</th> <th>App Version</th> <th>Desig</th> <th>Funct</th> </tr> </thead> <tbody> <tr> <td>Enc:701 Bay:3F<br/>Guest:SO-A</td> <td>192.168.1.181</td> <td>9080701b3-SO-A</td> <td>TPD (x86_64)</td> <td>6.5.0-82.22.0</td> <td>UDR</td> <td>10.0.0-10.0.0_10</td> <td></td> <td></td> </tr> <tr> <td>Enc:701 Bay:4E<br/>Guest:MP-3</td> <td>192.168.1.7</td> <td>9080701b4-TVOE</td> <td>TPD (x86_64)</td> <td>6.5.0-82.22.0</td> <td>TVOE</td> <td>2.5.0_82.22.0</td> <td></td> <td></td> </tr> <tr> <td>Enc:701 Bay:4E<br/>Guest:SO-B</td> <td>192.168.1.182</td> <td>9080701b4-SO-B</td> <td>TPD (x86_64)</td> <td>6.5.0-82.22.0</td> <td>UDR</td> <td>10.0.0-10.0.0_10</td> <td></td> <td></td> </tr> <tr> <td>Enc:701 Bay:5E</td> <td>192.168.1.10</td> <td>PCRF-6-MPE-1A</td> <td>TPD (x86_64)</td> <td>5.1.1-73.5.1</td> <td>MPE</td> <td>10.5.0_18.1.0</td> <td></td> <td></td> </tr> <tr> <td>Enc:701 Bay:6E</td> <td>192.168.1.163</td> <td>PCRF-6-MPE-1B</td> <td>TPD (x86_64)</td> <td>5.1.1-73.5.1</td> <td>MPE</td> <td>10.5.0_18.1.0</td> <td></td> <td></td> </tr> </tbody> </table> <p>Host: nmac.vnsdm701</p> <p>Buttons: Install OS, <b>Upgrade</b>, Accept Upgrade, Reject Upgrade, Regenerate Guest Device Mapping ISO, Refresh</p> | Ident        | IP Address    | Hostname | Plat Name        | Plat Version | App Name               | App Version                            | Desig    | Funct  | Enc:701 Bay:3F<br>Guest:SO-A | 192.168.1.181 | 9080701b3-SO-A                        | TPD (x86_64) | 6.5.0-82.22.0 | UDR | 10.0.0-10.0.0_10 |  |  | Enc:701 Bay:4E<br>Guest:MP-3 | 192.168.1.7 | 9080701b4-TVOE | TPD (x86_64) | 6.5.0-82.22.0 | TVOE | 2.5.0_82.22.0 |  |  | Enc:701 Bay:4E<br>Guest:SO-B | 192.168.1.182 | 9080701b4-SO-B | TPD (x86_64) | 6.5.0-82.22.0 | UDR | 10.0.0-10.0.0_10 |  |  | Enc:701 Bay:5E | 192.168.1.10 | PCRF-6-MPE-1A | TPD (x86_64) | 5.1.1-73.5.1 | MPE | 10.5.0_18.1.0 |  |  | Enc:701 Bay:6E | 192.168.1.163 | PCRF-6-MPE-1B | TPD (x86_64) | 5.1.1-73.5.1 | MPE | 10.5.0_18.1.0 |  |  |
| Ident                                     | IP Address   | Hostname   | Plat Name    | Plat Version  | App Name | App Version      | Desig        | Funct                  |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
| Enc:701 Bay:3F<br>Guest:SO-A              | 192.168.1.181  | 9080701b3-SO-A   | TPD (x86_64) | 6.5.0-82.22.0 | UDR      | 10.0.0-10.0.0_10 |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
| Enc:701 Bay:4E<br>Guest:MP-3              | 192.168.1.7  | 9080701b4-TVOE   | TPD (x86_64) | 6.5.0-82.22.0 | TVOE     | 2.5.0_82.22.0    |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
| Enc:701 Bay:4E<br>Guest:SO-B              | 192.168.1.182  | 9080701b4-SO-B   | TPD (x86_64) | 6.5.0-82.22.0 | UDR      | 10.0.0-10.0.0_10 |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
| Enc:701 Bay:5E                            | 192.168.1.10   | PCRF-6-MPE-1A  | TPD (x86_64) | 5.1.1-73.5.1  | MPE      | 10.5.0_18.1.0    |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
| Enc:701 Bay:6E                            | 192.168.1.163  | PCRF-6-MPE-1B  | TPD (x86_64) | 5.1.1-73.5.1  | MPE      | 10.5.0_18.1.0    |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>1) Select the desired <b>Image Name</b> of the Oracle Communications User Data Repository software.</p> <p>2) Click on the <b>Upgrade</b> button.</p> <p>3) Click on the popup dialog box <b>OK</b> button.</p>   |  <p><b>Software Upgrade - Select Image</b> <span style="float: right;">.Help<br/>Thu Oct 10 15:39:57 2013 EDT</span></p> <table border="1"> <thead> <tr> <th>Targets</th> <th>Image Name</th> <th>Type</th> <th>Architecture</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Entity: Enc:701 Bay:1E</td> <td>872-2525-101-2.5.0_82.22.0-TVOE-x86_64</td> <td>Bootable</td> <td>x86_64</td> <td></td> </tr> <tr> <td></td> <td>872-2553-101-10.0.0_10.1.0-UDR-x86_64</td> <td>Upgrade</td> <td>x86_64</td> <td></td> </tr> </tbody> </table> <p>Buttons: Start Software Upgrade</p> <p>Dialog: Are you sure you want to upgrade to UDR-12.2.0.0.0_14.8.1-x86_64 on all entities in the Targets list?</p> <p>Buttons: OK, Cancel</p>   | Targets      | Image Name    | Type     | Architecture     | Description  | Entity: Enc:701 Bay:1E | 872-2525-101-2.5.0_82.22.0-TVOE-x86_64 | Bootable | x86_64 |                              |               | 872-2553-101-10.0.0_10.1.0-UDR-x86_64 | Upgrade      | x86_64        |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
| Targets                                   | Image Name   | Type   | Architecture | Description   |          |                  |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
| Entity: Enc:701 Bay:1E                    | 872-2525-101-2.5.0_82.22.0-TVOE-x86_64   | Bootable   | x86_64       |               |          |                  |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |
|   | 872-2553-101-10.0.0_10.1.0-UDR-x86_64  | Upgrade  | x86_64       |               |          |                  |              |                        |  |          |        |                              |               |                                       |              |               |     |                  |  |  |                              |             |                |              |               |      |               |  |  |                              |               |                |              |               |     |                  |  |  |                |              |               |              |              |     |               |  |  |                |               |               |              |              |     |               |  |  |


Appendix G.2: Installing Oracle Communications User Data Repository Application with PM&C

| Step  | Procedure  | Result   |                      |             |             |              |                     |             |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
|---|--|--|----------------------|-------------|-------------|--------------|---------------------|-------------|--------------|------------|----------|----|---------|---|----------------------|-------------|-----|---------|---------------------|------|----|---------|---|----------------------|-------------|-----|---------|---------------------|------|----|---------|---|----------------------|-------------|-----|---------|---------------------|------|----|---------|---|----------------------|-------------|-----|---------|---------------------|------|
| <p>5.</p> <p><input type="checkbox"/></p>       | <p><b>PM&amp;C GUI:</b></p> <p>Upgrade Tasks will appear for each upgrade started this way under the left column <b>Status</b>.</p>  |    |                      |             |             |              |                     |             |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| <p>6.</p> <p><input type="checkbox"/></p>       | <p><b>PM&amp;C GUI:</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Task Monitoring</b></p> <p>...as shown on the right.</p> <p><i>Note: Upgrade tasks may be monitored for completion on this screen.</i></p> |  <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Task Output</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>18</td> <td>Upgrade</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: verona_so_a</td> <td>Running upgrade task</td> <td>IN_PROGRESS</td> <td>N/A</td> <td>0:01:01</td> <td>2016-06-22 10:02:28</td> <td>60%</td> </tr> <tr> <td>17</td> <td>Upgrade</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: verona_no_a</td> <td>Running upgrade task</td> <td>IN_PROGRESS</td> <td>N/A</td> <td>0:01:01</td> <td>2016-06-22 10:02:27</td> <td>60%</td> </tr> <tr> <td>16</td> <td>Upgrade</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: verona_mp_2</td> <td>Running upgrade task</td> <td>IN_PROGRESS</td> <td>N/A</td> <td>0:01:01</td> <td>2016-06-22 10:02:27</td> <td>60%</td> </tr> <tr> <td>15</td> <td>Upgrade</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: verona_mp_1</td> <td>Running upgrade task</td> <td>IN_PROGRESS</td> <td>N/A</td> <td>0:01:01</td> <td>2016-06-22 10:02:27</td> <td>60%</td> </tr> </tbody> </table> | ID                   | Task        | Target      | Status       | State               | Task Output | Running Time | Start Time | Progress | 18 | Upgrade | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_so_a | Running upgrade task | IN_PROGRESS | N/A | 0:01:01 | 2016-06-22 10:02:28 | 60%  | 17 | Upgrade | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_no_a | Running upgrade task | IN_PROGRESS | N/A | 0:01:01 | 2016-06-22 10:02:27 | 60%  | 16 | Upgrade | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_mp_2 | Running upgrade task | IN_PROGRESS | N/A | 0:01:01 | 2016-06-22 10:02:27 | 60%  | 15 | Upgrade | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_mp_1 | Running upgrade task | IN_PROGRESS | N/A | 0:01:01 | 2016-06-22 10:02:27 | 60%  |
| ID  | Task   | Target   | Status               | State       | Task Output | Running Time | Start Time          | Progress    |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| 18  | Upgrade  | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_so_a  | Running upgrade task | IN_PROGRESS | N/A         | 0:01:01      | 2016-06-22 10:02:28 | 60%         |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| 17  | Upgrade  | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_no_a  | Running upgrade task | IN_PROGRESS | N/A         | 0:01:01      | 2016-06-22 10:02:27 | 60%         |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| 16  | Upgrade  | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_mp_2  | Running upgrade task | IN_PROGRESS | N/A         | 0:01:01      | 2016-06-22 10:02:27 | 60%         |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| 15  | Upgrade  | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_mp_1  | Running upgrade task | IN_PROGRESS | N/A         | 0:01:01      | 2016-06-22 10:02:27 | 60%         |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| <p>7.</p> <p><input type="checkbox"/></p>       | <p><b>PM&amp;C GUI:</b></p> <p>Look for successful upgrade completion under the <b>Status</b> column</p>   |  <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Task Output</th> <th>Running Time</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>18</td> <td>Upgrade</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: verona_so_a</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:11:47</td> <td>2016-06-22 10:02:28</td> <td>100%</td> </tr> <tr> <td>17</td> <td>Upgrade</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: verona_no_a</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:10:22</td> <td>2016-06-22 10:02:27</td> <td>100%</td> </tr> <tr> <td>16</td> <td>Upgrade</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: verona_mp_2</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:11:45</td> <td>2016-06-22 10:02:27</td> <td>100%</td> </tr> <tr> <td>15</td> <td>Upgrade</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: verona_mp_1</td> <td>Success</td> <td>COMPLETE</td> <td></td> <td>0:11:37</td> <td>2016-06-22 10:02:27</td> <td>100%</td> </tr> </tbody> </table>   | ID                   | Task        | Target      | Status       | State               | Task Output | Running Time | Start Time | Progress | 18 | Upgrade | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_so_a | Success              | COMPLETE    |     | 0:11:47 | 2016-06-22 10:02:28 | 100% | 17 | Upgrade | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_no_a | Success              | COMPLETE    |     | 0:10:22 | 2016-06-22 10:02:27 | 100% | 16 | Upgrade | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_mp_2 | Success              | COMPLETE    |     | 0:11:45 | 2016-06-22 10:02:27 | 100% | 15 | Upgrade | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_mp_1 | Success              | COMPLETE    |     | 0:11:37 | 2016-06-22 10:02:27 | 100% |
| ID  | Task   | Target   | Status               | State       | Task Output | Running Time | Start Time          | Progress    |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| 18  | Upgrade  | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_so_a  | Success              | COMPLETE    |             | 0:11:47      | 2016-06-22 10:02:28 | 100%        |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| 17  | Upgrade  | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_no_a  | Success              | COMPLETE    |             | 0:10:22      | 2016-06-22 10:02:27 | 100%        |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| 16  | Upgrade  | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_mp_2  | Success              | COMPLETE    |             | 0:11:45      | 2016-06-22 10:02:27 | 100%        |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| 15  | Upgrade  | Host IP: ...:2bff:fe41:77f5<br>Guest: verona_mp_1  | Success              | COMPLETE    |             | 0:11:37      | 2016-06-22 10:02:27 | 100%        |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |                      |             |             |              |                     |             |              |            |          |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |    |         |   |                      |             |     |         |                     |      |

## Appendix H. Accept Application Installation on PM&C Managed Servers

This procedure will accept the Oracle Communications User Data Repository Application Installation / Upgrade with PM&C.

### Appendix H: Accept Application Installation on PM&C Managed Servers

| Step   | Procedure   | Result  |               |                  |                  |   |                  |                  |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |
|--|---|---|---------------|------------------|------------------|---|------------------|------------------|---------------------|-------------|----------|-------------------------------------|-------------|----------------|--------------|-----------------|------|-------------------|--|--|--|--------------|----------------------|--------------|-----------------|-----|---|--|--|--|--------------|-----------------------|--------------|-----------------|-----|---|--|--|--|--------------|----------------------|--------------|-----------------|-----|---|--|--|--|--------------|----------------------|--------------|-----------------|-----|---|--|--|--|-------------|----------------|--------------|-----------------|------|-------------------|--|--|
| 1.<br><input type="checkbox"/>                                     | <p><b>PM&amp;C GUI:</b></p> <p>Login to PM&amp;C GUI</p>  | <p>Open web browser and enter: <a href="https://&lt;pmac_management_network_ip&gt;">https://&lt;pmac_management_network_ip&gt;</a></p> <p>Login as guidadmin user.</p>   |               |                  |                  |   |                  |                  |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |
| 2.<br><input type="checkbox"/>                                     | <p><b>PM&amp;C GUI:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→ Software<br/>→ Software Inventory</p> <p>...as shown on the right.</p> | <p>Main Menu: Software -&gt; Software Inventory</p> <p>Filter: [v]</p> <table border="1"> <thead> <tr> <th>Identity</th> <th>IP Address</th> <th>Hostname</th> <th>Platform Name</th> <th>Platform Version</th> <th>Application Name</th> <th>Application Version</th> <th>Designation</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>RMS: <a href="#">PC9112024-TV0E</a></td> <td>192.168.1.5</td> <td>pc9112024-tv0e</td> <td>TPD (x86_64)</td> <td>7.3.0.0-88.27.0</td> <td>TV0E</td> <td>3.3.0.0_0_88.27.0</td> <td></td> <td></td> </tr> <tr> <td>RMS: <a href="#">PC9112024-TV0E</a><br/>Guest: <a href="#">MP-3</a></td> <td>192.168.1.18</td> <td>hostname005e35c43850</td> <td>TPD (x86_64)</td> <td>7.3.0.0-88.27.0</td> <td>UDR</td> <td>12.3.0.0-16.3.5 Pending Upgrade Acc/Rej</td> <td></td> <td></td> </tr> <tr> <td>RMS: <a href="#">PC9112024-TV0E</a><br/>Guest: <a href="#">MP-4</a></td> <td>192.168.1.20</td> <td>hostnameea2d8be9fc72c</td> <td>TPD (x86_64)</td> <td>7.3.0.0-88.27.0</td> <td>UDR</td> <td>12.3.0.0-16.3.5 Pending Upgrade Acc/Rej</td> <td></td> <td></td> </tr> <tr> <td>RMS: <a href="#">PC9112024-TV0E</a><br/>Guest: <a href="#">NO-B</a></td> <td>192.168.1.21</td> <td>hostname784ec3f9603e</td> <td>TPD (x86_64)</td> <td>7.3.0.0-88.27.0</td> <td>UDR</td> <td>12.3.0.0-16.3.5 Pending Upgrade Acc/Rej</td> <td></td> <td></td> </tr> <tr> <td>RMS: <a href="#">PC9112024-TV0E</a><br/>Guest: <a href="#">SC-B</a></td> <td>192.168.1.19</td> <td>hostname26147fd10663</td> <td>TPD (x86_64)</td> <td>7.3.0.0-88.27.0</td> <td>UDR</td> <td>12.3.0.0-16.3.5 Pending Upgrade Acc/Rej</td> <td></td> <td></td> </tr> <tr> <td>RMS: <a href="#">PC9112024-TV0E</a><br/>Guest: <a href="#">pmac</a></td> <td>192.168.1.1</td> <td>pc9112024-pmac</td> <td>TPD (x86_64)</td> <td>7.2.0.0-88.25.0</td> <td>PMAC</td> <td>6.2.0.0_0_62.24.0</td> <td></td> <td></td> </tr> </tbody> </table> | Identity      | IP Address       | Hostname         | Platform Name                           | Platform Version | Application Name | Application Version | Designation | Function | RMS: <a href="#">PC9112024-TV0E</a> | 192.168.1.5 | pc9112024-tv0e | TPD (x86_64) | 7.3.0.0-88.27.0 | TV0E | 3.3.0.0_0_88.27.0 |  |  | RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">MP-3</a> | 192.168.1.18 | hostname005e35c43850 | TPD (x86_64) | 7.3.0.0-88.27.0 | UDR | 12.3.0.0-16.3.5 Pending Upgrade Acc/Rej |  |  | RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">MP-4</a> | 192.168.1.20 | hostnameea2d8be9fc72c | TPD (x86_64) | 7.3.0.0-88.27.0 | UDR | 12.3.0.0-16.3.5 Pending Upgrade Acc/Rej |  |  | RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">NO-B</a> | 192.168.1.21 | hostname784ec3f9603e | TPD (x86_64) | 7.3.0.0-88.27.0 | UDR | 12.3.0.0-16.3.5 Pending Upgrade Acc/Rej |  |  | RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">SC-B</a> | 192.168.1.19 | hostname26147fd10663 | TPD (x86_64) | 7.3.0.0-88.27.0 | UDR | 12.3.0.0-16.3.5 Pending Upgrade Acc/Rej |  |  | RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">pmac</a> | 192.168.1.1 | pc9112024-pmac | TPD (x86_64) | 7.2.0.0-88.25.0 | PMAC | 6.2.0.0_0_62.24.0 |  |  |
| Identity   | IP Address  | Hostname  | Platform Name | Platform Version | Application Name | Application Version                     | Designation      | Function         |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |
| RMS: <a href="#">PC9112024-TV0E</a>                                | 192.168.1.5   | pc9112024-tv0e  | TPD (x86_64)  | 7.3.0.0-88.27.0  | TV0E             | 3.3.0.0_0_88.27.0                       |                  |                  |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |
| RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">MP-3</a> | 192.168.1.18  | hostname005e35c43850  | TPD (x86_64)  | 7.3.0.0-88.27.0  | UDR              | 12.3.0.0-16.3.5 Pending Upgrade Acc/Rej |                  |                  |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |
| RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">MP-4</a> | 192.168.1.20  | hostnameea2d8be9fc72c   | TPD (x86_64)  | 7.3.0.0-88.27.0  | UDR              | 12.3.0.0-16.3.5 Pending Upgrade Acc/Rej |                  |                  |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |
| RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">NO-B</a> | 192.168.1.21  | hostname784ec3f9603e  | TPD (x86_64)  | 7.3.0.0-88.27.0  | UDR              | 12.3.0.0-16.3.5 Pending Upgrade Acc/Rej |                  |                  |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |
| RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">SC-B</a> | 192.168.1.19  | hostname26147fd10663  | TPD (x86_64)  | 7.3.0.0-88.27.0  | UDR              | 12.3.0.0-16.3.5 Pending Upgrade Acc/Rej |                  |                  |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |
| RMS: <a href="#">PC9112024-TV0E</a><br>Guest: <a href="#">pmac</a> | 192.168.1.1   | pc9112024-pmac  | TPD (x86_64)  | 7.2.0.0-88.25.0  | PMAC             | 6.2.0.0_0_62.24.0                       |                  |                  |                     |             |          |                                     |             |                |              |                 |      |                   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                       |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |              |                      |              |                 |     |   |  |  |  |             |                |              |                 |      |                   |  |  |

Appendix H: Accept Application Installation on PM&C Managed Servers

| Step  | Procedure    | Result   |               |                  |                  |                                |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
|---|--------------|--|---------------|------------------|------------------|--------------------------------|------------------|------------------|---------------------|----------------------------------|--|--|--|--|--|--|---|-------------|---------------|--------------|-----------------|------|-------------------|---|--------------|----------------------|--------------|-----------------|-----|--------------------------------|---|--------------|----------------------|--------------|-----------------|-----|--------------------------------|---|--------------|----------------------|--------------|-----------------|-----|--------------------------------|---|--------------|----------------------|--------------|-----------------|-----|--------------------------------|--|-------------|---------------|--------------|-----------------|------|-------------------|----------|------------|----------|---------------|------------------|---------------------------|--|--|--------------|-----------------|---|--|-----|--------------|-----------------|---|--|----|--------------|-----------------|---|--|----|--------------|-----------------|---|--------------|----------------------|--------------|-----------------|
| <p>3.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-bottom: 10px;"></div> <p>1) Highlight the desired server or servers based on its <i>enclosure</i> and <i>bay</i> <b>Identity</b>...</p> <p><i>Note: You may select multiple servers for simultaneous upgrade to the same release by holding the <b>Ctrl</b> (Control) key while selecting lines with the mouse.</i></p> <p>2) Click on the <b>Accept Upgrade</b> button.</p> <p>3) An Information message will be raised to indicate acceptance has begun.</p> |              | <p>Main Menu: Software -&gt; Software Inventory</p> <p>Filter*</p> <table border="1"> <thead> <tr> <th>Identity</th> <th>IP Address</th> <th>Hostname</th> <th>Platform Name</th> <th>Platform Version</th> <th>Application Name</th> <th>Application Version</th> </tr> </thead> <tbody> <tr> <td>RMS: <a href="#">Verona-RMS1</a></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona-pmac-1</a></td> <td>192.168.1.1</td> <td>verona-pmac-1</td> <td>TPD (x86_64)</td> <td>7.2.0.0-88.21.0</td> <td>PMAC</td> <td>6.2.0.0.0_62.19.0</td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona_mp_1</a></td> <td>192.168.1.13</td> <td>hostname22cbb35bd380</td> <td>TPD (x86_64)</td> <td>7.2.0.0-88.21.0</td> <td>UDR</td> <td>12.2.0.0-14.9.2 Pending AccRej</td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona_mp_2</a></td> <td>192.168.1.14</td> <td>hostname347883e258b5</td> <td>TPD (x86_64)</td> <td>7.2.0.0-88.21.0</td> <td>UDR</td> <td>12.2.0.0-14.9.2 Pending AccRej</td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona_no_a</a></td> <td>192.168.1.11</td> <td>hostname0d60e2997196</td> <td>TPD (x86_64)</td> <td>7.2.0.0-88.21.0</td> <td>UDR</td> <td>12.2.0.0-14.9.2 Pending AccRej</td> </tr> <tr> <td>Host <a href="#">verona-tvoe-1</a><br/>Guest <a href="#">verona_so_a</a></td> <td>192.168.1.10</td> <td>hostname471c3182b861</td> <td>TPD (x86_64)</td> <td>7.2.0.0-88.21.0</td> <td>UDR</td> <td>12.2.0.0-14.9.2 Pending AccRej</td> </tr> <tr> <td></td> <td>192.168.1.5</td> <td>verona-tvoe-1</td> <td>TPD (x86_64)</td> <td>7.2.0.0-88.21.0</td> <td>TVOE</td> <td>3.2.0.0.0_88.21.0</td> </tr> </tbody> </table> <p style="text-align: center; color: red; font-weight: bold;">Selection active -- periodic display updates paused</p> <div style="display: flex; justify-content: space-around; border: 1px solid gray; padding: 5px;"> <span>Install OS</span> <span>Transfer ISO Image</span> <span>Map Device Aliases</span> <span>Rediscover</span> </div> <div style="display: flex; justify-content: space-around; border: 1px solid gray; padding: 5px; margin-top: 5px;"> <span>Upgrade</span> <span style="border: 2px solid red; border-radius: 50%; padding: 2px;">Accept Upgrade</span> <span>Reject Upgrade</span> </div> <div style="display: flex; justify-content: space-around; border: 1px solid gray; padding: 5px; margin-top: 5px;"> <span>Patch</span> <span>Accept Patches</span> <span>Reject Patches</span> </div> <p style="text-align: right; font-size: 2em; color: blue; font-weight: bold;">2</p> <p>Main Menu: Software -&gt; Software Inventory</p> <p>Filter* Info</p> <table border="1"> <thead> <tr> <th>Identity</th> <th>IP Address</th> <th>Hostname</th> <th>Platform Name</th> <th>Platform Version</th> </tr> </thead> <tbody> <tr> <td>RMS: <a href="#">PC91</a></td> <td></td> <td></td> <td>TPD (x86_64)</td> <td>7.3.0.0.0-88.27</td> </tr> <tr> <td>RMS: <a href="#">PC91</a><br/>Guest <a href="#">MP-3</a></td> <td></td> <td>350</td> <td>TPD (x86_64)</td> <td>7.3.0.0.0-88.27</td> </tr> <tr> <td>RMS: <a href="#">PC91</a><br/>Guest <a href="#">MP-4</a></td> <td></td> <td>2c</td> <td>TPD (x86_64)</td> <td>7.3.0.0.0-88.27</td> </tr> <tr> <td>RMS: <a href="#">PC91</a><br/>Guest <a href="#">NO-B</a></td> <td></td> <td>3e</td> <td>TPD (x86_64)</td> <td>7.3.0.0.0-88.27</td> </tr> <tr> <td>RMS: <a href="#">PC9112024-TVOE</a><br/>Guest <a href="#">SO-B</a></td> <td>192.168.1.19</td> <td>hostname26147fd10663</td> <td>TPD (x86_64)</td> <td>7.3.0.0.0-88.27</td> </tr> </tbody> </table> <div style="border: 1px solid green; background-color: #e0ffe0; padding: 10px; margin-top: 10px;"> <p><b>Info</b></p> <ul style="list-style-type: none"> <li>Starting accept upgrade on Guest: MP-4 Task ID: 56</li> <li>Starting accept upgrade on Guest: MP-3 Task ID: 58</li> <li>Starting accept upgrade on Guest: NO-B Task ID: 59</li> <li>Starting accept upgrade on Guest: SO-B Task ID: 57</li> </ul> </div> | Identity      | IP Address       | Hostname         | Platform Name                  | Platform Version | Application Name | Application Version | RMS: <a href="#">Verona-RMS1</a> |  |  |  |  |  |  | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona-pmac-1</a> | 192.168.1.1 | verona-pmac-1 | TPD (x86_64) | 7.2.0.0-88.21.0 | PMAC | 6.2.0.0.0_62.19.0 | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_1</a> | 192.168.1.13 | hostname22cbb35bd380 | TPD (x86_64) | 7.2.0.0-88.21.0 | UDR | 12.2.0.0-14.9.2 Pending AccRej | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_2</a> | 192.168.1.14 | hostname347883e258b5 | TPD (x86_64) | 7.2.0.0-88.21.0 | UDR | 12.2.0.0-14.9.2 Pending AccRej | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_no_a</a> | 192.168.1.11 | hostname0d60e2997196 | TPD (x86_64) | 7.2.0.0-88.21.0 | UDR | 12.2.0.0-14.9.2 Pending AccRej | Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_so_a</a> | 192.168.1.10 | hostname471c3182b861 | TPD (x86_64) | 7.2.0.0-88.21.0 | UDR | 12.2.0.0-14.9.2 Pending AccRej |  | 192.168.1.5 | verona-tvoe-1 | TPD (x86_64) | 7.2.0.0-88.21.0 | TVOE | 3.2.0.0.0_88.21.0 | Identity | IP Address | Hostname | Platform Name | Platform Version | RMS: <a href="#">PC91</a> |  |  | TPD (x86_64) | 7.3.0.0.0-88.27 | RMS: <a href="#">PC91</a><br>Guest <a href="#">MP-3</a> |  | 350 | TPD (x86_64) | 7.3.0.0.0-88.27 | RMS: <a href="#">PC91</a><br>Guest <a href="#">MP-4</a> |  | 2c | TPD (x86_64) | 7.3.0.0.0-88.27 | RMS: <a href="#">PC91</a><br>Guest <a href="#">NO-B</a> |  | 3e | TPD (x86_64) | 7.3.0.0.0-88.27 | RMS: <a href="#">PC9112024-TVOE</a><br>Guest <a href="#">SO-B</a> | 192.168.1.19 | hostname26147fd10663 | TPD (x86_64) | 7.3.0.0.0-88.27 |
| Identity  | IP Address   | Hostname   | Platform Name | Platform Version | Application Name | Application Version            |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| RMS: <a href="#">Verona-RMS1</a>  |              |  |               |                  |                  |                                |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona-pmac-1</a>   | 192.168.1.1  | verona-pmac-1  | TPD (x86_64)  | 7.2.0.0-88.21.0  | PMAC             | 6.2.0.0.0_62.19.0              |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_1</a>   | 192.168.1.13 | hostname22cbb35bd380   | TPD (x86_64)  | 7.2.0.0-88.21.0  | UDR              | 12.2.0.0-14.9.2 Pending AccRej |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_mp_2</a>   | 192.168.1.14 | hostname347883e258b5   | TPD (x86_64)  | 7.2.0.0-88.21.0  | UDR              | 12.2.0.0-14.9.2 Pending AccRej |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_no_a</a>   | 192.168.1.11 | hostname0d60e2997196   | TPD (x86_64)  | 7.2.0.0-88.21.0  | UDR              | 12.2.0.0-14.9.2 Pending AccRej |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| Host <a href="#">verona-tvoe-1</a><br>Guest <a href="#">verona_so_a</a>   | 192.168.1.10 | hostname471c3182b861   | TPD (x86_64)  | 7.2.0.0-88.21.0  | UDR              | 12.2.0.0-14.9.2 Pending AccRej |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
|   | 192.168.1.5  | verona-tvoe-1  | TPD (x86_64)  | 7.2.0.0-88.21.0  | TVOE             | 3.2.0.0.0_88.21.0              |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| Identity  | IP Address   | Hostname   | Platform Name | Platform Version |                  |                                |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| RMS: <a href="#">PC91</a>   |              |  | TPD (x86_64)  | 7.3.0.0.0-88.27  |                  |                                |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| RMS: <a href="#">PC91</a><br>Guest <a href="#">MP-3</a>   |              | 350  | TPD (x86_64)  | 7.3.0.0.0-88.27  |                  |                                |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| RMS: <a href="#">PC91</a><br>Guest <a href="#">MP-4</a>   |              | 2c   | TPD (x86_64)  | 7.3.0.0.0-88.27  |                  |                                |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| RMS: <a href="#">PC91</a><br>Guest <a href="#">NO-B</a>   |              | 3e   | TPD (x86_64)  | 7.3.0.0.0-88.27  |                  |                                |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |
| RMS: <a href="#">PC9112024-TVOE</a><br>Guest <a href="#">SO-B</a>   | 192.168.1.19 | hostname26147fd10663   | TPD (x86_64)  | 7.3.0.0.0-88.27  |                  |                                |                  |                  |                     |                                  |  |  |  |  |  |  |   |             |               |              |                 |      |                   |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |   |              |                      |              |                 |     |                                |  |             |               |              |                 |      |                   |          |            |          |               |                  |                           |  |  |              |                 |   |  |     |              |                 |   |  |    |              |                 |   |  |    |              |                 |   |              |                      |              |                 |

Appendix H: Accept Application Installation on PM&C Managed Servers

| Step  | Procedure   | Result  |                                 |             |        |        |       |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |
|---|---|---|---------------------------------|-------------|--------|--------|-------|----|--------|---|---------------------------------|-------------|----|--------|---|---------------------------------|-------------|----|--------|---|---------------------------------|-------------|----|--------|---|---------------------------------|-------------|
| <p>4.</p> <p><input type="checkbox"/></p>       | <p><b>PM&amp;C GUI:</b></p> <p>Select...</p> <p><b>Main Menu</b> → <b>Task Monitoring</b></p> <p>...as shown on the right.</p> <p><b>Note:</b><br/>Acceptance tasks may be monitored for completion on this screen.</p> | <p><b>Main Menu: Task Monitoring</b></p> <p>Filter* ▼</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> </tr> </thead> <tbody> <tr> <td>22</td> <td>Accept</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: <a href="#">verona_so_a</a></td> <td>Task ID Assigned : 1466605734.0</td> <td>IN_PROGRESS</td> </tr> <tr> <td>21</td> <td>Accept</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: <a href="#">verona_mp_1</a></td> <td>Task ID Assigned : 1466605734.0</td> <td>IN_PROGRESS</td> </tr> <tr> <td>20</td> <td>Accept</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: <a href="#">verona_no_a</a></td> <td>Task ID Assigned : 1466605733.0</td> <td>IN_PROGRESS</td> </tr> <tr> <td>19</td> <td>Accept</td> <td>Host IP: ...:2bff:fe41:77f5<br/>Guest: <a href="#">verona_mp_2</a></td> <td>Task ID Assigned : 1466605733.0</td> <td>IN_PROGRESS</td> </tr> </tbody> </table> | ID                              | Task        | Target | Status | State | 22 | Accept | Host IP: ...:2bff:fe41:77f5<br>Guest: <a href="#">verona_so_a</a> | Task ID Assigned : 1466605734.0 | IN_PROGRESS | 21 | Accept | Host IP: ...:2bff:fe41:77f5<br>Guest: <a href="#">verona_mp_1</a> | Task ID Assigned : 1466605734.0 | IN_PROGRESS | 20 | Accept | Host IP: ...:2bff:fe41:77f5<br>Guest: <a href="#">verona_no_a</a> | Task ID Assigned : 1466605733.0 | IN_PROGRESS | 19 | Accept | Host IP: ...:2bff:fe41:77f5<br>Guest: <a href="#">verona_mp_2</a> | Task ID Assigned : 1466605733.0 | IN_PROGRESS |
| ID  | Task  | Target  | Status                          | State       |        |        |       |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |
| 22  | Accept  | Host IP: ...:2bff:fe41:77f5<br>Guest: <a href="#">verona_so_a</a>   | Task ID Assigned : 1466605734.0 | IN_PROGRESS |        |        |       |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |
| 21  | Accept  | Host IP: ...:2bff:fe41:77f5<br>Guest: <a href="#">verona_mp_1</a>   | Task ID Assigned : 1466605734.0 | IN_PROGRESS |        |        |       |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |
| 20  | Accept  | Host IP: ...:2bff:fe41:77f5<br>Guest: <a href="#">verona_no_a</a>   | Task ID Assigned : 1466605733.0 | IN_PROGRESS |        |        |       |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |
| 19  | Accept  | Host IP: ...:2bff:fe41:77f5<br>Guest: <a href="#">verona_mp_2</a>   | Task ID Assigned : 1466605733.0 | IN_PROGRESS |        |        |       |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |   |   |                                 |             |        |        |       |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |    |        |   |                                 |             |

## Appendix I. PM&C Deployment and Configuration

This procedure contains steps to deploy and configure PM&C on TVOE Servers.

### I.1 Deploying PM&C on TVOE Server

#### Appendix I.1: Deploying PM&C on TVOE Server

| Step                           | Procedure   | Result   |
|--------------------------------|---|--|
| 1.<br><input type="checkbox"/> | Access the <b>TVOE Server</b> console.  | Connect to the <b>TVOE Server</b> console using one of the access methods as described in <b>Appendix A</b> or ssh to the server.  |
| 2.<br><input type="checkbox"/> | <b>TVOE Server (SSH):</b><br><br><i>Login as "admusr" user.</i>                           | login as: <code>admusr</code><br>password: <code>&lt;admusr_password&gt;</code>  |
| 3.<br><input type="checkbox"/> | <b>TVOE Server (SSH):</b><br><br>Switch to "root" user.                                   | \$ <code>su -</code><br>password: <code>&lt;root_password&gt;</code>   |
| 4.<br><input type="checkbox"/> | <b>TVOE Server (SSH):</b><br><br><i>Mount the media containing the PM&amp;C software.</i> | Follow steps defined in ...<br><br>C.1 Mounting Physical Media on HP Servers<br><b>or</b><br>C.2 Mounting Virtual Media on HP Servers<br><b>Or</b><br>For Oracle RMS servers, copy the media to "/var/TKLC/upgrade" on TVOE server ... to mount the PM&C software. |
| 5.<br><input type="checkbox"/> | <b>TVOE Server (SSH):</b><br><br><i>Mount PM&amp;C media location</i>                     | Using the device location identified in step 4, mount the PM&C ISO with this command:<br><br><code>#mount -o loop &lt;media_device&gt; /mnt</code><br>Mount  |

Appendix I.1: Deploying PM&C on TVOE Server

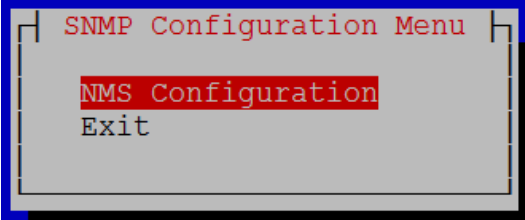
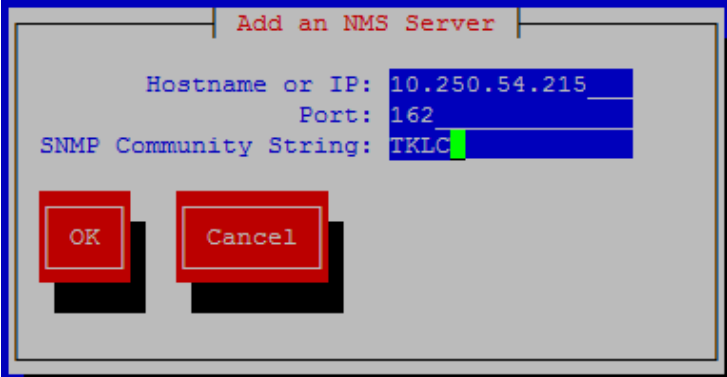
| Step   | Procedure   | Result   |
|--|---|--|
| <p>6.</p> <input type="checkbox"/>   | <p><b>TVOE Management Server (SSH):</b></p> <p><i>Deploy PM&amp;C</i></p>   | <p><i>Note:</i> Some lab deployments may host TVOE and PMAC on the XMI network/bridge instead of on a separate routable management network.</p> <p>Using the pmac-deploy script, deploy the PM&amp;C<br/> <code># cd /mnt/upgrade</code></p> <p>Deploy PM&amp;C by running the following command (on one line, <b>without line breaks</b>):</p> <p><b>** Note: If installing multiple RMS servers, control IP needs to be changed.</b></p> <p><u>Command Syntax:</u></p> <pre># ./pmac-deploy --controlIP=192.168.1.1 --managementBridge=&lt;management or xmi&gt; --guest=&lt;PMAC_Name&gt; --hostname=&lt;PMAC_Hostname&gt; --managementIP=&lt;PMAC_Management_ip_address&gt; --managementNM=&lt;PMAC_Management_netmask&gt; --routeGW=&lt;PMAC_Management_gateway_address&gt; --ntpserver=&lt;TVOE_Management_server_ip_address&gt;</pre> <p><u>Example:</u></p> <pre># ./pmac-deploy --controlIP=192.168.1.1 --managementBridge= xmi --guest=pmac --hostname=pc9000712-pmac --managementIP=10.250.37.149--managementNM=255.255.255.192 --routeGW=10.250.37.129 --ntpserver=10.250.37.147</pre> <p>The PM&amp;C will deploy and boot.</p> <p>The management and control network will come up based on the settings that were provided to the pmac-deploy script. This process takes about 5-10 minutes.</p> |
| <p>7.</p> <input type="checkbox"/> | <p><b>TVOE Management Server (SSH):</b></p> <p><i>Unmount the media</i></p> | <p>Unmount the DVD media using the following command:</p> <pre># cd / #umount /mnt</pre>   |

Appendix I.1: Deploying PM&C on TVOE Server


| Step  | Procedure  | Result  |
|---|--|---|
| <p>8.</p> <input type="checkbox"/>    | <p><b>TVOE Server (SSH):</b></p> <p>Log into the virtual PM&amp;C server</p>                         | <p>Login using virsh, and wait until you see the login prompt:</p> <pre>#virsh Welcome to virsh, the virtualization interactive terminal. Type: 'help' for help with commands       'quit' to quit  virsh #list   Id Name                State -----    2 pmac                running</pre> <p>Log into the virtual PM&amp;C server using PM&amp;C root credentials.</p> <pre>virsh #console pmac  Connected to domain pmac Escape character is ^] &lt;ENTER&gt;  PMAC-pc9000632 login: admusr Password:&lt;admusr_password&gt;  [admusr@PMAC-pc9000632 ~]\$ sudo su -  Switch to root [root@PMAC-pc9000632 ~]#</pre> |
| <p>9.</p> <input type="checkbox"/>  | <p><b>Virtual PM&amp;C:</b></p> <p>Verify the PM&amp;C is configured correctly on the first boot</p> | <p>Verify the PM&amp;C configured correctly on first boot.</p> <pre># ls /usr/TKLC/plat/etc/deployment.d/</pre> <p><i>NOTE: This command should return no output on a healthy system.</i></p>   |
| <p>10.</p> <input type="checkbox"/> | <p><b>Virtual PM&amp;C:</b></p> <p>Set Time zone</p>   | <p>Determine the TimeZone to be used for the PM&amp;C, and set the PM&amp;C time zone</p> <p><i>Note: Valid time zones can be found in Appendix P.</i></p> <pre>#set_pmac_tz.pl &lt;timezone&gt;</pre> <p><b>Example:</b></p> <pre>#set_pmac_tz.pl America/New_York</pre>   |



Appendix I.1: Deploying PM&C on TVOE Server

| Step                                | Procedure   | Result  |
|-------------------------------------|---|---|
| <p>11.</p> <input type="checkbox"/> | <p><b>Virtual PM&amp;C:</b><br/>Configure SNMP</p>      | <p>Configure SNMP trap destination by running the following:</p> <pre>#su - platcfg</pre> <p>1.Navigate to <b>Network Configuration &gt;SNMP Configuration &gt;NMS Configuration</b>.</p>  <p>2. Select <b>Edit</b> and then choose 'Add a New NMS Server'.</p> <p>3.The 'Add an NMS Server' page will be displayed.</p>  <p>4.Complete the form by entering in all information about the SNMP trap destination.</p> <p>5.Select <b>OK</b> to finalize the configuration.</p> <p>6.The 'NMS Server Action Menu' will now be displayed.</p> <p>7.Select <b>Exit</b>. The following dialogue will then be presented: 'Do you want to restart the Alarm Routing Service?'</p> <p>8.Select <b>Yes</b> and then wait a few seconds while the Alarm Routing Service is restarted.</p> <p>9.At that time the 'SNMP Configuration Menu' will be presented.</p> <p>10.Exit platcfg.</p> <p><i>Note: All alarm information will then be sent to the NMS located at the destination.</i></p> |
| <p>12.</p> <input type="checkbox"/> | <p><b>Virtual PM&amp;C:</b><br/>Initialize PM&amp;C</p> | <p>Run the following commands on PM&amp; console one after the other to initialize PM&amp;C :-</p> <pre># pmacadm applyProfile --fileName=TVOE # pmacadm finishProfileConfig</pre> <p>The last command will launch a background task that will take around 5 min to run .</p> <p>The following command can be used to monitor the progress of the above task.</p> <pre># pmaccli getBgTasks</pre> <p>Wait till the PM&amp;C initialization is successful</p>  |

Appendix I.1: Deploying PM&C on TVOE Server

| Step                                | Procedure  | Result  |
|-------------------------------------|--|---|
| <p>13.</p> <input type="checkbox"/> | <p><b>Virtual PM&amp;C:</b></p> <p><i>Reboot PM&amp;C server</i></p>                     | <p>Reboot the PM&amp;C server to ensure all processes are started with the new Time Zone:</p> <pre>#init 6</pre>  |
| <p>14.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b></p> <p><i>Login to PM&amp;C GUI</i></p>                          | <p>Open web browser and enter: <a href="http://&lt;pmac_management_network_ip&gt;">http://&lt;pmac_management_network_ip&gt;</a></p> <p>Login as guidmin user.</p>   |
| <p>15.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b></p> <p><i>Set the PM&amp;C Application GUI Site Settings</i></p> | <p>Navigate to GUI page: <a href="#">Main Menu</a> → <a href="#">Administration</a> → <a href="#">General Options</a></p> <p>Set the "<b>Site name</b>" field to a descriptive name</p> <p>Set the "<b>Welcome Message</b>" field that is displayed upon login.</p> <p>Verify values, and click "<b>Ok</b>" button when done.</p> |

Appendix I.1: Deploying PM&C on TVOE Server

| Step                                     | Procedure  | Result  |
|--|--|---|
| 16.<br><input type="checkbox"/>          | <p><b>Virtual PM&amp;C SSH:</b></p> <p><i>Perform PM&amp;C application backup and save backup file</i></p> | <p>Perform PM&amp;C application backup by executing this command:</p> <pre>#<b>pmacadm backup</b></pre> <p>The command output will be similar to this:</p> <pre># PM&amp;C backup been successfully initiated as task ID 7</pre> <p><i>Note: The backup runs as a background task. To check the status of the background task use the PM&amp;C GUI Task Monitor page, or issue the command "<b>pmaccli getBgTasks</b>". The result should eventually be "PM&amp;C Backup successful" and the background task should indicate "COMPLETE".</i></p> <p><i>Note: The "<b>pmacadm backup</b>" command uses a naming convention which includes a date/time stamp in the file name (Example file name: backupPmac_20111025_100251.pef). In the example provided, the backup file name indicates that it was created on 10/25/2011 at 10:02:51 am server time.</i></p> <p>The PM&amp;C backup must be moved to a remote server. Transfer (sftp, scp, rsync, or preferred utility) the PM&amp;C backup file to an appropriate remote server.</p> |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |  |   |

I.2 Configure PM&C Application

Appendix I.2: Configure PM&C Application

| Step                           | Procedure   | Result  |
|--------------------------------|---|---|
| 1.<br><input type="checkbox"/> | <p><b>PM&amp;C GUI:</b></p> <p><i>Login to PM&amp;C GUI</i></p> | <p>Open web browser and enter: <a href="https://&lt;pmac_management_network_ip&gt;">https://&lt;pmac_management_network_ip&gt;</a></p> <p>Login as guiadmin user.</p> |

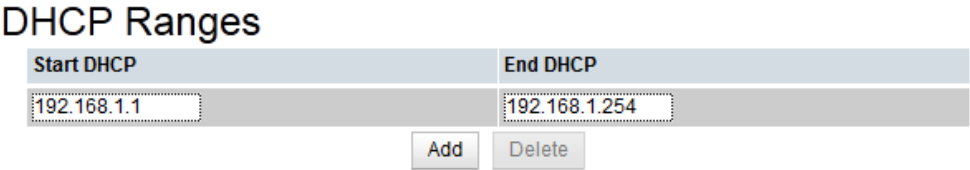
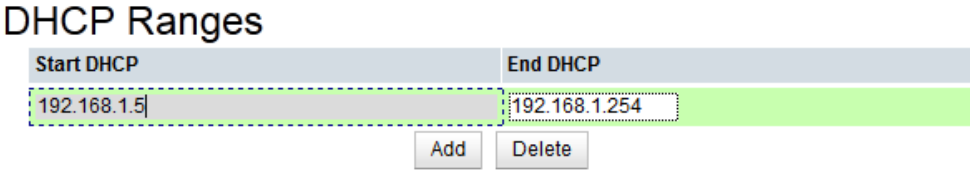
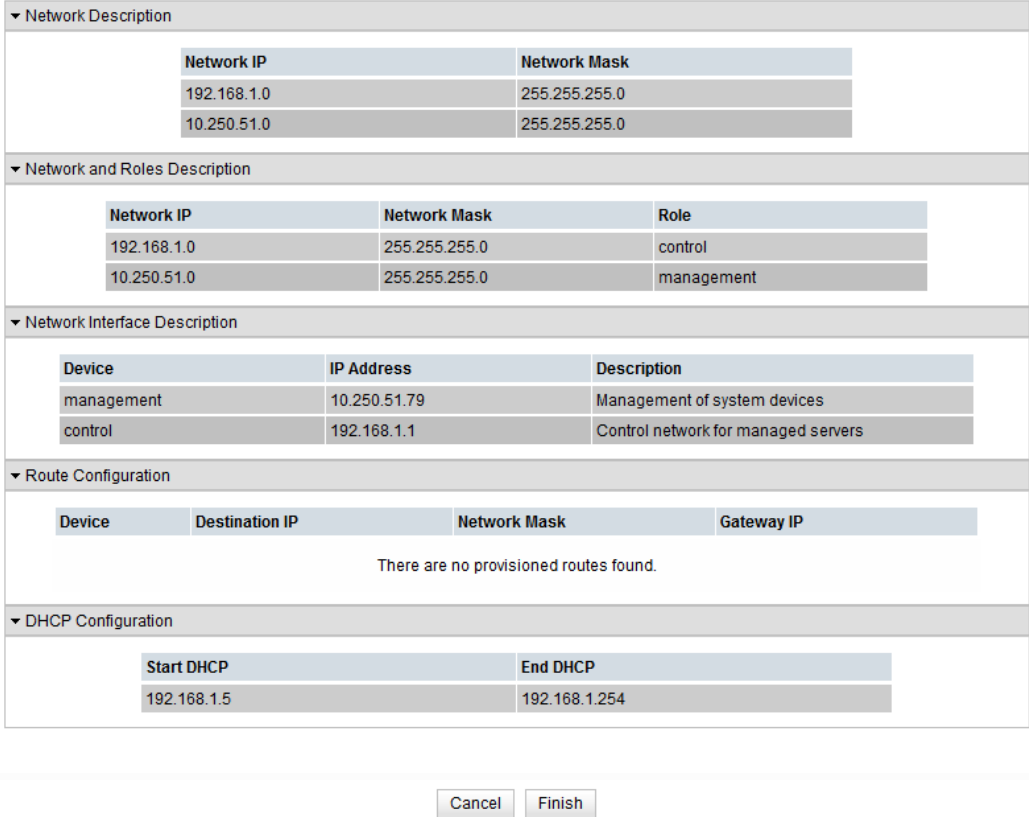
Appendix I.2: Configure PM&C Application

| Step                                      | Procedure   | Result  |                                     |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
|---|---|---|-------------------------------------|------|---------|---------|------|-----------------|--|-------|---------|-------------|------|---------|------------------------|-----------------------------------|------------|--------------------------|------------|-----------------------|------------|--------------------------|--------------|----------------------------------|------------|--------------------------|--------------------|--------------------------|------------|-------------------------------------|----------------|------------------|------------|--------------------------|------------------------|---|------|--------------------------|
| <p>2.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>Select a profile</p> | <p>The first time that the PM&amp;C GUI is opened, an initialization screen appears and will look similar to the screen shown below:</p> <table border="1"> <thead> <tr> <th>File Name</th> <th>Name</th> <th>Comment</th> <th>Version</th> </tr> </thead> <tbody> <tr> <td>TVOE</td> <td>PM&amp;C TVOE Guest</td> <td>Manage systems from a TVOE hosted PM&amp;C</td> <td>7.2.0</td> </tr> </tbody> </table> <p style="text-align: center;"><input type="button" value="Initialize"/></p> <p>Select the TVOE profile and click on “<b>Initialize</b>” button, then following screen will display</p> <p style="text-align: center;"><input type="button" value="Cancel"/> <input type="button" value="Next"/></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Description</th> <th>Role</th> <th>Enabled</th> </tr> </thead> <tbody> <tr> <td>DEVICE.NETWORK.NETBOOT</td> <td>Network device PXE initialization</td> <td>Management</td> <td><input type="checkbox"/></td> </tr> <tr> <td>DEVICE.NTP</td> <td>PM&amp;C as a time server</td> <td>Management</td> <td><input type="checkbox"/></td> </tr> <tr> <td>PMAC.MANAGED</td> <td>Remote management of PM&amp;C server</td> <td>Management</td> <td><input type="checkbox"/></td> </tr> <tr> <td>PMAC.REMOTE.BACKUP</td> <td>Remote server for backup</td> <td>Management</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>PMAC.NETBACKUP</td> <td>NetBackup client</td> <td>Management</td> <td><input type="checkbox"/></td> </tr> <tr> <td>PMAC.IPV6.NOAUTOCONFIG</td> <td>PMAC IPv6 interface disable autoconfiguration</td> <td>NULL</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p style="text-align: center;"><input type="button" value="Add Role"/></p> <p style="text-align: center;"><input type="button" value="Cancel"/> <input type="button" value="Next"/></p> <p><i>Note: If you have missed the initialization process, please navigate to this GUI page: <a href="#">Administration</a> → <a href="#">PM&amp;C Configuration</a> → <a href="#">Feature Configuration</a></i></p> <p>Make sure that the enable checkbox is checked for the following features only:</p> <ol style="list-style-type: none"> <li>1. DEVICE.NTP</li> <li>2. PMAC.REMOTE.BACKUP</li> </ol> <p>Click on “<b>Next</b>” button</p> <p><i>Note: If you have missed the initialization process, you will need to click on “<b>Apply</b>” button, then navigate to this GUI page <a href="#">Administration</a> → <a href="#">PM&amp;C Configuration</a> → <a href="#">Network Configuration</a> and click on the “<b>ReConfigure</b>” button.</i></p> | File Name                           | Name | Comment | Version | TVOE | PM&C TVOE Guest | Manage systems from a TVOE hosted PM&C | 7.2.0 | Feature | Description | Role | Enabled | DEVICE.NETWORK.NETBOOT | Network device PXE initialization | Management | <input type="checkbox"/> | DEVICE.NTP | PM&C as a time server | Management | <input type="checkbox"/> | PMAC.MANAGED | Remote management of PM&C server | Management | <input type="checkbox"/> | PMAC.REMOTE.BACKUP | Remote server for backup | Management | <input checked="" type="checkbox"/> | PMAC.NETBACKUP | NetBackup client | Management | <input type="checkbox"/> | PMAC.IPV6.NOAUTOCONFIG | PMAC IPv6 interface disable autoconfiguration | NULL | <input type="checkbox"/> |
| File Name                                 | Name  | Comment   | Version                             |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
| TVOE                                      | PM&C TVOE Guest                                     | Manage systems from a TVOE hosted PM&C  | 7.2.0                               |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
| Feature                                   | Description   | Role  | Enabled                             |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
| DEVICE.NETWORK.NETBOOT                    | Network device PXE initialization                   | Management  | <input type="checkbox"/>            |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
| DEVICE.NTP                                | PM&C as a time server                               | Management  | <input type="checkbox"/>            |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
| PMAC.MANAGED                              | Remote management of PM&C server                    | Management  | <input type="checkbox"/>            |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
| PMAC.REMOTE.BACKUP                        | Remote server for backup                            | Management  | <input checked="" type="checkbox"/> |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
| PMAC.NETBACKUP                            | NetBackup client                                    | Management  | <input type="checkbox"/>            |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |
| PMAC.IPV6.NOAUTOCONFIG                    | PMAC IPv6 interface disable autoconfiguration       | NULL  | <input type="checkbox"/>            |      |         |         |      |                 |  |       |         |             |      |         |                        |                                   |            |                          |            |                       |            |                          |              |                                  |            |                          |                    |                          |            |                                     |                |                  |            |                          |                        |   |      |                          |

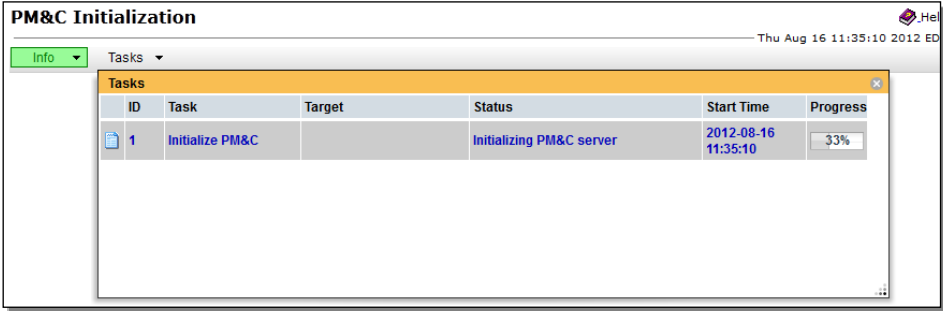
Appendix I.2: Configure PM&C Application

| Step                               | Procedure  | Result   |            |                |              |               |               |                         |             |                |                   |
|------------------------------------|--|--|------------|----------------|--------------|---------------|---------------|-------------------------|-------------|----------------|-------------------|
| <p>3.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Network Description</i></p> | <p>You will see this default screen similar to:</p> <table border="1"> <thead> <tr> <th>Network IP</th> <th>Network Mask</th> </tr> </thead> <tbody> <tr> <td>192.168.1.0</td> <td>255.255.255.0</td> </tr> <tr> <td>10.250.51.0</td> <td>255.255.255.0</td> </tr> </tbody> </table> <p style="text-align: center;"> <input type="button" value="Add"/> <input type="button" value="Delete"/> </p> <p>Enter the Network IPs and Netmasks for the control and Management Networks.<br/>Click on “Next” button.</p>   | Network IP | Network Mask   | 192.168.1.0  | 255.255.255.0 | 10.250.51.0   | 255.255.255.0           |             |                |                   |
| Network IP                         | Network Mask   |  |            |                |              |               |               |                         |             |                |                   |
| 192.168.1.0                        | 255.255.255.0  |  |            |                |              |               |               |                         |             |                |                   |
| 10.250.51.0                        | 255.255.255.0  |  |            |                |              |               |               |                         |             |                |                   |
| <p>4.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Network Roles</i></p>       | <p>You will see this default screen similar to:</p> <table border="1"> <thead> <tr> <th>Network IP</th> <th>Network Mask</th> <th>Role</th> </tr> </thead> <tbody> <tr> <td>192.168.1.0</td> <td>255.255.255.0</td> <td>control</td> </tr> <tr> <td>10.250.51.0</td> <td>255.255.255.0</td> <td>management</td> </tr> </tbody> </table> <p style="text-align: center;"> <input type="button" value="Add"/> <input type="button" value="Delete"/> </p> <p>Verify the roles and update if necessary.<br/>Click on “Next” button.</p>  | Network IP | Network Mask   | Role         | 192.168.1.0   | 255.255.255.0 | control                 | 10.250.51.0 | 255.255.255.0  | management        |
| Network IP                         | Network Mask   | Role   |            |                |              |               |               |                         |             |                |                   |
| 192.168.1.0                        | 255.255.255.0  | control  |            |                |              |               |               |                         |             |                |                   |
| 10.250.51.0                        | 255.255.255.0  | management   |            |                |              |               |               |                         |             |                |                   |
| <p>5.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Network Interface</i></p>   | <p>You will see this default screen similar to:</p> <table border="1"> <thead> <tr> <th>Device</th> <th>IP Address</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>control</td> <td>192.168.1.1</td> <td>Private Control network</td> </tr> <tr> <td>management</td> <td>10.240.199.148</td> <td>Management access</td> </tr> </tbody> </table> <p style="text-align: center;"> <input type="button" value="Add"/> <input type="button" value="Delete"/> </p> <p>Verify the IP addresses for each Device and update if necessary.<br/>Click on “Next” button.</p> | Device     | IP Address     | Description  | control       | 192.168.1.1   | Private Control network | management  | 10.240.199.148 | Management access |
| Device                             | IP Address   | Description  |            |                |              |               |               |                         |             |                |                   |
| control                            | 192.168.1.1  | Private Control network  |            |                |              |               |               |                         |             |                |                   |
| management                         | 10.240.199.148   | Management access  |            |                |              |               |               |                         |             |                |                   |
| <p>6.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Network Route</i></p>       | <p>You will see this default screen similar to:</p> <table border="1"> <thead> <tr> <th>Device</th> <th>Destination IP</th> <th>Network Mask</th> <th>Gateway IP</th> </tr> </thead> <tbody> </tbody> </table> <p style="text-align: center;"> <input type="button" value="Add"/> <input type="button" value="Delete"/> </p> <p>No routes are required.<br/>Click on “Next” button when done.</p>   | Device     | Destination IP | Network Mask | Gateway IP    |               |                         |             |                |                   |
| Device                             | Destination IP   | Network Mask   | Gateway IP |                |              |               |               |                         |             |                |                   |

Appendix I.2: Configure PM&C Application

| Step                               | Procedure   | Result  |
|------------------------------------|---|---|
| <p>7.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>DHCP Ranges</i></p>      | <p>You will see this default screen similar to:</p>  <p>Set the Starting address in range to 192.168.1.5 and the Ending address in range to 192.168.1.254.</p>  <p>Click on “<b>Next</b>” button when done.</p> |
| <p>8.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Summary Settings</i></p> | <p>The following summary screen will be displayed.</p>  <p>Verify the values, and click “<b>Finish</b>” button when done</p>   |

Appendix I.2: Configure PM&C Application

| Step  | Procedure  | Result   |                  |              |                     |          |              |            |          |   |                 |  |                  |         |                     |      |
|---|--|--|------------------|--------------|---------------------|----------|--------------|------------|----------|---|-----------------|--|------------------|---------|---------------------|------|
| <p>9.</p> <input type="checkbox"/>              | <p><b>PM&amp;C GUI:</b><br/>Complete the configuration</p>                                       | <p>The following summary screen will be displayed, click on Tasks tab to view the Initialization Progress</p>  <p>Navigate to GUI page "<a href="#">Main Menu</a> → <a href="#">Task Monitoring</a>" for status of this task.</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>1</td> <td>Initialize PM&amp;C</td> <td></td> <td>PM&amp;C initialized</td> <td>0:00:25</td> <td>2012-08-16 11:35:10</td> <td>100%</td> </tr> </tbody> </table> <p>Wait till the Progress bar turns green, that signifies that the PM&amp;C Initialization was successful.</p>  | ID               | Task         | Target              | Status   | Running Time | Start Time | Progress | 1 | Initialize PM&C |  | PM&C initialized | 0:00:25 | 2012-08-16 11:35:10 | 100% |
| ID  | Task   | Target   | Status           | Running Time | Start Time          | Progress |              |            |          |   |                 |  |                  |         |                     |      |
| 1   | Initialize PM&C  |  | PM&C initialized | 0:00:25      | 2012-08-16 11:35:10 | 100%     |              |            |          |   |                 |  |                  |         |                     |      |
| <p>10.</p> <input type="checkbox"/>             | <p><b>PM&amp;C GUI:</b><br/>Set the PM&amp;C Application GUI Site Settings</p>                   | <p>Navigate to GUI page: <a href="#">Main Menu</a> → <a href="#">Administration</a> → <a href="#">General Options</a></p> <p>Set the "<b>Site name</b>" field to a descriptive name</p> <p>Set the "<b>Welcome Message</b>" field that is displayed upon login.</p> <p>Verify values, and click "<b>OK</b>" button when done</p>   |                  |              |                     |          |              |            |          |   |                 |  |                  |         |                     |      |
| <p>11.</p> <input type="checkbox"/>             | <p><b>Virtual PM&amp;C SSH:</b><br/>Perform PM&amp;C application backup and save backup file</p> | <p>Perform PM&amp;C application backup by executing this command:<br/><b>#pmacadm backup</b></p> <p>The command output will be similar to this:<br/># PM&amp;C backup been successfully initiated as task ID 7</p> <p><i>Note: The backup runs as a background task. To check the status of the background task use the PM&amp;C GUI Task Monitor page, or issue the command " <b>pmaccli getBgTasks</b> ". The result should eventually be "PM&amp;C Backup successful" and the background task should indicate "COMPLETE".</i></p> <p><i>Note: The "<b>pmacadm backup</b>" command uses a naming convention which includes a date/time stamp in the file name (Example file name: backupPmac_20111025_100251.pef ). In the example provided, the backup file name indicates that it was created on 10/25/2011 at 10:02:51 am server time.</i></p> <p>The PM&amp;C backup must be moved to a remote server. Transfer (sftp, scp, rsync, or preferred utility) the PM&amp;C backup file to an appropriate remote server.</p> |                  |              |                     |          |              |            |          |   |                 |  |                  |         |                     |      |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |                  |              |                     |          |              |            |          |   |                 |  |                  |         |                     |      |

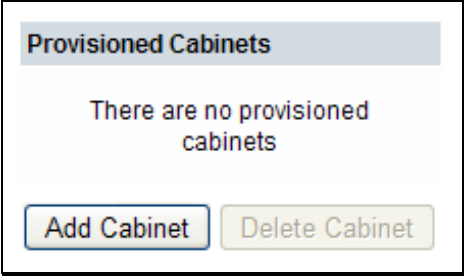
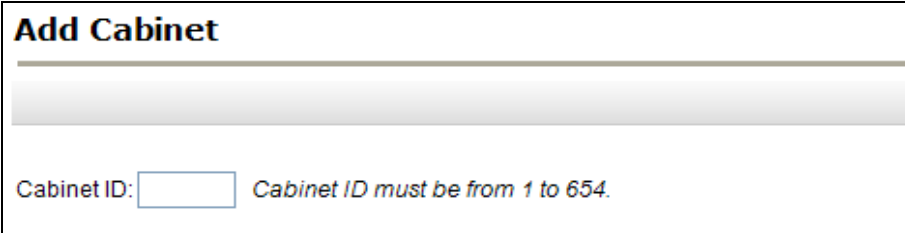
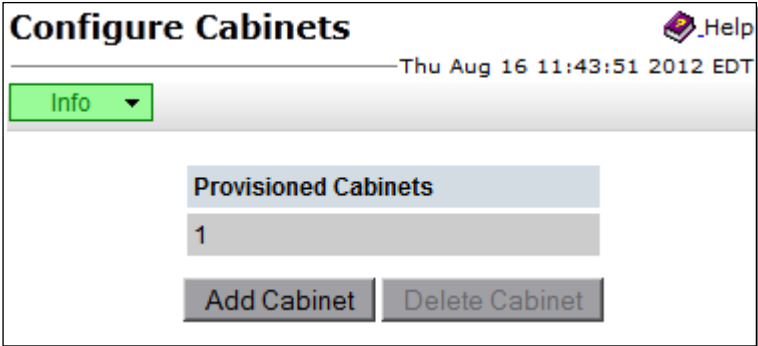
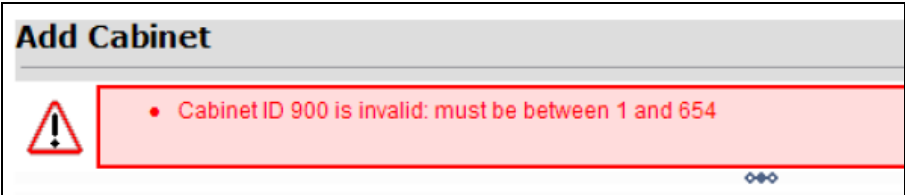
### I.3 Add Cabinet to PM&C System Inventory

#### Appendix I.3: Add Cabinet to PM&C System Inventory

| Step                               | Procedure  | Result  |
|------------------------------------|--|---|
| <p>1.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Login to PM&amp;C GUI</i></p> | <p>Open web browser and enter: <a href="https://&lt;pmac_management_network_ip&gt;">https://&lt;pmac_management_network_ip&gt;</a></p> <p>Login as guiadmin user.</p> |
| <p>2.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Configure Cabinets</i></p>    | <p>Navigate to this GUI page:<br/><a href="#">Main Menu</a>→<a href="#">Hardware</a>→<a href="#">System Configuration</a>→<a href="#">Configure Cabinets</a>.</p>     |

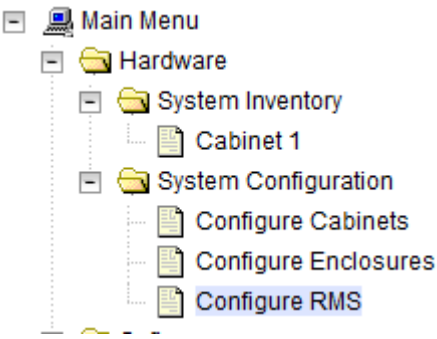
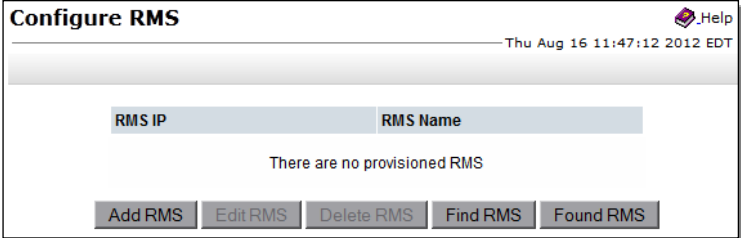


Appendix I.3: Add Cabinet to PM&C System Inventory

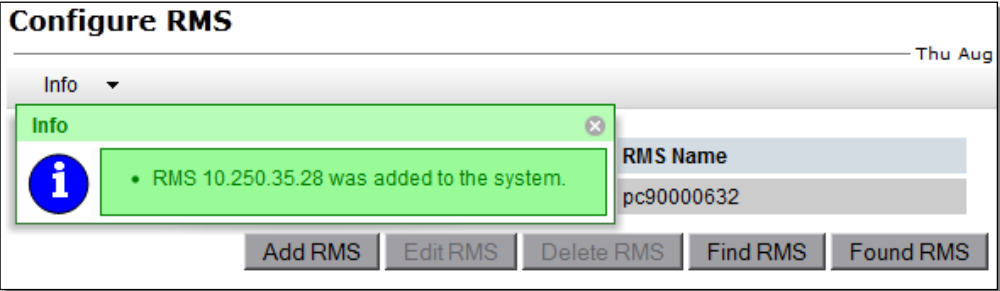
| Step  | Procedure  | Result  |
|---|--|---|
| <p>3.</p> <input type="checkbox"/>              | <p><b>PM&amp;C GUI:</b><br/><i>Navigate to Configure Cabinet</i></p> | <p>On the Configure Cabinets panel click on “Add Cabinet” button</p>   |
| <p>4.</p> <input type="checkbox"/>              | <p><b>PM&amp;C GUI:</b><br/><i>Enter Cabinet ID</i></p>              | <p>Enter the value for CabinetID and press <b>Add Cabinet</b>.</p>    |
| <p>5.</p> <input type="checkbox"/>              | <p><b>PM&amp;C GUI:</b><br/><i>Check Errors</i></p>                  | <p>If no error is reported to the user you will see the following:</p>  <p>Or you will see an error message:</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |   |

## I.4 Add Rack Mount Server to PM&C System Inventory

### Appendix I.4: Add Rack Mount Server To PM&C System Inventory

| Step                               | Procedure  | Result  |
|------------------------------------|--|---|
| <p>1.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Login to PM&amp;C GUI</i></p> | <p>Open web browser and enter: <a href="https://&lt;pmac_management_network_ip&gt;">https://&lt;pmac_management_network_ip&gt;</a></p> <p>Login as guiadmin user.</p>   |
| <p>2.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/>Configure RMS</p>                | <p>Navigate to this GUI page:<br/><a href="#">Main Menu</a>→<a href="#">Hardware</a>→<a href="#">System Configuration</a>→<a href="#">Configure RMS</a></p>  <p>The screenshot shows a tree view with the following structure:</p> <ul style="list-style-type: none"> <li>Main Menu             <ul style="list-style-type: none"> <li>Hardware                     <ul style="list-style-type: none"> <li>System Inventory                             <ul style="list-style-type: none"> <li>Cabinet 1</li> </ul> </li> <li>System Configuration                             <ul style="list-style-type: none"> <li>Configure Cabinets</li> <li>Configure Enclosures</li> <li>Configure RMS</li> </ul> </li> </ul> </li> </ul> </li> </ul> |
| <p>3.</p> <input type="checkbox"/> | <p><b>PM&amp;C GUI:</b><br/><i>Add RMS</i></p>               | <p>On the Configure Cabinets panel click on <a href="#">Add RMS</a></p>  <p>The screenshot shows the 'Configure RMS' panel with the following elements:</p> <ul style="list-style-type: none"> <li>Header: <b>Configure RMS</b> with a Help icon and timestamp: Thu Aug 16 11:47:12 2012 EDT</li> <li>Input fields: RMS IP and RMS Name</li> <li>Text: There are no provisioned RMS</li> <li>Buttons: Add RMS, Edit RMS, Delete RMS, Find RMS, Found RMS</li> </ul>   |


Appendix I.4: Add Rack Mount Server To PM&C System Inventory

| Step  | Procedure  | Result   |
|---|--|--|
| <p>4.</p> <input type="checkbox"/>              | <p><b>PM&amp;C GUI:</b><br/><i>Enter RMS Information</i></p> | <p>Enter the management port (iLO) IP Address of the rack mount server (this is the TVOE server upon which the current PM&amp;C is hosted). Enter the User and Password login credentials for the ILO. Then press <b>Add RMS</b>.</p> <p><b>Main Menu: Hardware -&gt; System Configuration -&gt; Configure RMS [Add RMS]</b></p> <hr/> <p>IP Address (required): <input type="text"/></p> <p>Name: <input type="text"/></p> <p>Cabinet ID: <input type="text" value="----"/> ▼</p> <p>User: <input type="text"/> <small>Required field when Password is entered.</small></p> <p>Password: <input type="password"/> <small>Required field when User is entered.</small></p> <hr/> <p><input type="button" value="Add RMS"/> <input type="button" value="Cancel"/></p> <p><b>Note:</b> The PM&amp;C contains default credentials for the management port, however if you know the default credentials will not work to log into the RMS ILO then please enter valid credentials for the rack mount server management port.</p> |
| <p>5.</p> <input type="checkbox"/>              | <p><b>PM&amp;C GUI:</b><br/><i>Check Errors</i></p>          | <p>If no error is reported to the user you will see the following:</p>   |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |

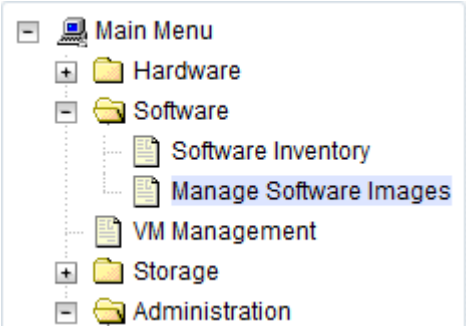

## Appendix J. Adding Software Images to PM&C Server

This procedure contains steps to add software images to PM&C, including TPD, TVOE, and Oracle Communications User Data Repository application images.

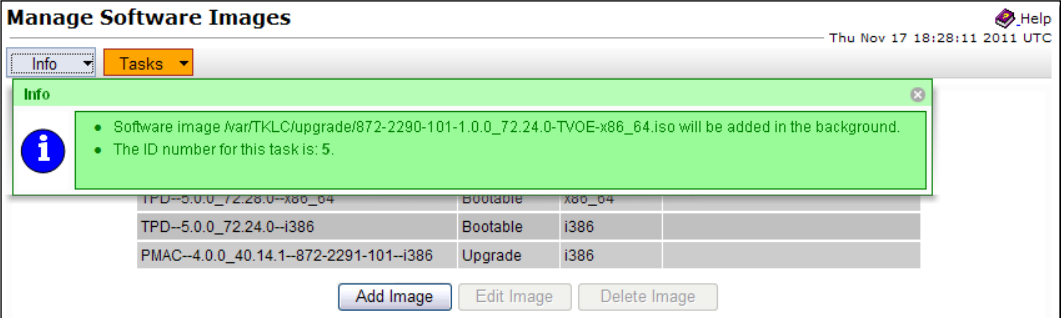
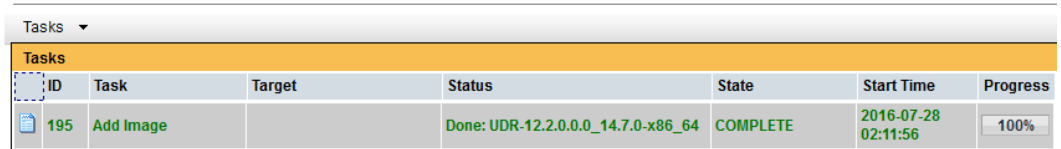
### Appendix J: Add Software Images To PM&C Server

| Step                           | Procedure  | Result  |
|--------------------------------|--|---|
| 1.<br><input type="checkbox"/> | Load required ISO images to PM&C server                  | <p>Use <b>sftp</b> to transfer the iso image to the PM&amp;C server in the <b>/var/TKLC/smac/image/isoimages/home/smacftpusr/</b> directory as pmacftpusr user:</p> <ul style="list-style-type: none"> <li>Change to the directory where your TPD, TVOE, or Oracle Communications User Data Repository ISO images are located</li> <li>Using <b>sftp</b>, connect to the PM&amp;C management server<br/> <pre># sftp pmacftpusr@&lt;pmac_management_network_ip&gt; # put &lt;image&gt;.iso</pre> </li> <li>After the image transfer is 100% complete, close the connection<br/> <pre># quit</pre> </li> </ul> |
| 2.<br><input type="checkbox"/> | Move the ISO images                                      | <p>Move the iso images added in the above location to <b>/var/TKLC/upgrade/</b> directory using following command :</p> <pre># mv /var/TKLC/smac/image/isoimages/home/smacftpusr/*.iso /var/TKLC/upgrade/</pre>   |
| 3.<br><input type="checkbox"/> | Verify the ISO images on PM&C                            | <p>Verify that the images added in step 1 (TPD, TVOE and Oracle Communications User Data Repository) above are present using the following command:</p> <pre>ls -l /var/TKLC/upgrade</pre>  |
| 4.<br><input type="checkbox"/> | <p><b>PM&amp;C GUI:</b></p> <p>Login to PM&amp;C GUI</p> | <p>Open web browser and enter: <a href="https://&lt;pmac_management_network_ip&gt;">https://&lt;pmac_management_network_ip&gt;</a></p> <p>Login as guiadmin user.</p>   |

Appendix J: Add Software Images To PM&C Server

| Step                                      | Procedure  | Result  |
|---|--|---|
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>Navigate to Manage Software Images</p>                                    | <p>Navigate to this GUI page: <a href="#">Main Menu</a> → <a href="#">Software</a> → <a href="#">Manage Software Images</a></p>    |
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p><i>For Oracle Communications User Data Repository ISO image only:</i></p> | <p>Select “Add Image” button at the bottom of the screen</p>  <hr/> <p>The image transferred to PM&amp;C will appear in the list as a local file <code>"/var/TKLC/..."</code>.</p> <p><b>Add Software Image</b></p> <hr/> <p>Images may be added from any of these sources:</p> <ul style="list-style-type: none"> <li>• Oracle-provided media in the PM&amp;C host's CD/DVD drive (Refer to Note)</li> <li>• USB media attached to the PM&amp;C's host (Refer to Note)</li> <li>• External mounts. Prefix the directory with "extfile:/".</li> <li>• These local search paths:             <ul style="list-style-type: none"> <li>◦ <code>/var/TKLC/upgrade/*.iso</code></li> <li>◦ <code>/var/TKLC/smac/image/isoimages/home/smacftpusr/*.iso</code></li> </ul> </li> </ul> <p>Note: CD and USB images mounted on PM&amp;C's VM host must first be made accessible to the PM&amp;C VM guest.</p> <p>Path: <input type="text" value="/var/TKLC/upgrade/UDR-12.2.0.0.0_14.7.0-x86_64.iso"/></p> <p>Description: <input type="text"/></p> <hr/> <p><input type="button" value="Add New Image"/></p> <p>Select the appropriate path, enter an appropriate image description and press “Add New Image” button.</p> |

Appendix J: Add Software Images To PM&C Server

| Step                                   | Procedure   | Result   |          |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
|--|---|--|----------|----------|---------------------|----------|-------|------------|----------|---------------------------|-----------|------------------------------------|----------|----------|---------------------|------|-------------------------|--|----------|------|--|--|--|--|---------|------|--|--|--|--|
| 7.<br><input type="checkbox"/>         | <b>PM&amp;C GUI:</b><br>Monitor the <b>Add Image</b> status           | <p>The “<b>Manage Software Images</b>” page is then re-displayed with a new background task entry in the table at the top of the page:</p>  <p>The screenshot shows the 'Manage Software Images' page with a table containing three entries. A green info popup is overlaid on the table, stating: 'Software image /var/TKLC/upgrade/872-2290-101-1.0.0_72.24.0-TVOE-x86_64.iso will be added in the background. The ID number for this task is: 5.'</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>TPD--5.0.0_72.24.0-x86_64</td> <td></td> <td>Bootable</td> <td>x86_64</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TPD--5.0.0_72.24.0-i386</td> <td></td> <td>Bootable</td> <td>i386</td> <td></td> <td></td> <td></td> </tr> <tr> <td>PMAC--4.0.0_40.14.1--872-2291-101-i386</td> <td>Upgrade</td> <td>i386</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | ID       | Task     | Target              | Status   | State | Start Time | Progress | TPD--5.0.0_72.24.0-x86_64 |           | Bootable                           | x86_64   |          |                     |      | TPD--5.0.0_72.24.0-i386 |  | Bootable | i386 |  |  |  | PMAC--4.0.0_40.14.1--872-2291-101-i386 | Upgrade | i386 |  |  |  |  |
| ID                                     | Task  | Target   | Status   | State    | Start Time          | Progress |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| TPD--5.0.0_72.24.0-x86_64              |   | Bootable   | x86_64   |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| TPD--5.0.0_72.24.0-i386                |   | Bootable   | i386     |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| PMAC--4.0.0_40.14.1--872-2291-101-i386 | Upgrade   | i386   |          |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| 8.<br><input type="checkbox"/>         | <b>PM&amp;C GUI:</b><br>Wait until the <b>Add Image</b> task finishes | <p>When the task is complete, its text changes to green and its Progress column indicates "100%".</p> <p>Check that the correct image name appears in the Status column:</p>  <p>The screenshot shows the 'Tasks' table with one entry: ID 195, Task 'Add Image', Target 'Done: UDR-12.2.0.0.0_14.7.0-x86_64', State 'COMPLETE', Start Time '2016-07-28 02:11:56', and Progress '100%'.</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Start Time</th> <th>Progress</th> </tr> </thead> <tbody> <tr> <td>195</td> <td>Add Image</td> <td>Done: UDR-12.2.0.0.0_14.7.0-x86_64</td> <td>COMPLETE</td> <td>COMPLETE</td> <td>2016-07-28 02:11:56</td> <td>100%</td> </tr> </tbody> </table>  | ID       | Task     | Target              | Status   | State | Start Time | Progress | 195                       | Add Image | Done: UDR-12.2.0.0.0_14.7.0-x86_64 | COMPLETE | COMPLETE | 2016-07-28 02:11:56 | 100% |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| ID                                     | Task  | Target   | Status   | State    | Start Time          | Progress |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| 195                                    | Add Image   | Done: UDR-12.2.0.0.0_14.7.0-x86_64   | COMPLETE | COMPLETE | 2016-07-28 02:11:56 | 100%     |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| 9.                                     | <b>PM&amp;C Server:</b><br>SSH to Server                              | Follow the Steps 8 - 16 only for C Class Systems<br>SSH to PM&C Server as admusr.  |          |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| 10.                                    | <b>PM&amp;C Server:</b><br>Switch to root                             | sudo su -  |          |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| 11.                                    | <b>PM&amp;C Server:</b><br>Create new xml directory                   | mkdir -p /usr/TKLC/smac/etc/switch/xml   |          |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| 12.                                    | <b>PM&amp;C Server:</b><br>Create new backup directory                | mkdir -p /usr/TKLC/smac/etc/switch/backup  |          |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| 13.                                    | <b>PM&amp;C Server:</b><br>cd to new xml directory                    | cd /usr/TKLC/smac/etc/switch/xml   |          |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |
| 14.                                    | <b>PM&amp;C Server:</b><br>Mount ISO                                  | mount /var/TKLC/smac/image/repository/UDR-<release>-x86_64.iso /mnt -o loop  |          |          |                     |          |       |            |          |                           |           |                                    |          |          |                     |      |                         |  |          |      |  |  |  |  |         |      |  |  |  |  |

**Appendix J: Add Software Images To PM&C Server**

| Step                                     | Procedure  | Result  |
|--|--|---|
| 15.                                      | <b>PM&amp;C Server:</b><br>Copy the xml templates  | cp /mnt/upgrade/overlay/UDR_NetConfig_Templates.zip /usr/TKLC/smac/etc/switch/xml |
| 16.                                      | <b>PM&amp;C Server:</b><br>Unmount the directory   | umount /mnt   |
| 17.                                      | <b>PM&amp;C Server:</b><br>Unzip the xml templates | unzip UDR_NetConfig_Templates.zip   |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |  |   |

## Appendix K. Applying Server Configuration

### K.1 Applying Server Configuration with ILO

This procedure contains steps to apply server configuration scripts to rack mount servers.

#### Appendix K.1: Applying Server Configuration with ILO

| Step                                   | In this procedure you will apply server configuration scripts to rack mount servers.                        |  |
|--|---|--|
| <p>1.<br/><input type="checkbox"/></p> | <p>Access the server's ILO VGA.</p>   | <p>Connect to the server's ILO VGA using one of the access methods described in <b>Appendix A.1</b> based on server type.</p>  |
| <p>2.<br/><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p><i>Mount the media containing the server configuration script.</i></p> | <p>Follow steps defined in...</p> <p><b>C.1</b>Mounting Physical Media on HP Servers</p> <p style="text-align: center;"><b>or</b></p> <p><b>C.2</b>Mounting Virtual Media on HP Servers</p> <p style="text-align: center;"><b>Or</b></p> <p><b>C.3</b><br/>Mounting Virtual Media on Oracle RMS Servers</p> <p>...to mount the physical (USB) or local (virtual) media containing the server configuration script.</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/>NOAMP-A <input type="checkbox"/>NOAMP -B</p> |



Appendix K.1: Applying Server Configuration with ILO

|  |   |  |
|--|---|--|
| <p>3.<br/><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p>Copy the <b>server</b> configuration file to the “<b>/var/tmp</b>” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p> <p><b>NOTE:</b> <i>The server will poll the <b>/var/tmp</b> directory for the presence of the configuration file and automatically execute it when found.</i></p> | <p><b>Example:</b><br/>TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre>[root@pc9040833-no-a ~]# cp -p /&lt;mount-point&gt;/TKLCConfigData.NO-A.sh /var/tmp/TKLCConfigData.sh [root@pc9040833-no-a ~]#</pre> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/>NOAMP-A <input type="checkbox"/>NOAMP -B</p>  |
| <p>4.<br/><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p>After the script completes, a broadcast message will be sent to the terminal.</p> <p>Ignore the output shown and press the <b>&lt;ENTER&gt;</b> key to return to the command prompt.</p> <p><b>NOTE:</b> <i>The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.</i></p>        | <p><b>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</b></p> <pre>Broadcast message from root (Thu Dec 1 09:41:24 2011):  Server configuration completed successfully! See /var/TKLC/appw/logs/Process/install.log for details.  Please remove the USB flash drive if connected and reboot the server. &lt;ENTER&gt;  [root@pc9040833-no-a ~]#</pre> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/>NOAMP-A <input type="checkbox"/>NOAMP -B</p> |


Appendix K.1: Applying Server Configuration with ILO

|  |   |   |
|--|---|---|
| <p>5.<br/><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p>Configure the time zone.</p>   | <pre>[root@pc9040833-no-a ~]# set_ini_tz.pl &lt;time zone&gt;</pre> <p>Note: The following command example uses America/New_York time zone. Replace, as appropriate, with the time zone you have selected for this installation. For UTC, use "Etc/UTC". See Appendix P for a list of valid time zones.</p> <pre>[root@pc9040833-no-a ~]# set_ini_tz.pl "America/New_York"</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP -B</p> |
| <p>6.<br/><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p>Initiate a reboot of the Server.</p>   | <pre>[root@pc9040833-no-a ~]# init 6</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP -B</p>   |
| <p>7.<br/><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p>Output similar to that shown on the right may be observed as the server initiates a post-install reboot.</p> | <pre>scsi7 : SCSI emulation for USB Mass Storage devices scsi8 : SCSI emulation for USB Mass Storage devices input: Intel(R) Multidevice as /class/input/input3 input: USB HID v1.01 Mouse [Intel(R) Multidevice] on usb-0000:00:1d.3-1 input: Intel(R) Multidevice as /class/input/input4 input: USB HID v1.01 Keyboard [Intel(R) Multidevice] on usb-0000:00:1d.3-1 Restarting system. - machine restart █</pre>  |
| <p>8.<br/><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p>After the server has completed reboot...</p> <p>Log back into the server as the “root” user.</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:root Password: &lt;root_password&gt;</pre>   |

Appendix K.1: Applying Server Configuration with ILO

|  |   |   |
|--|---|---|
| <p>9.</p> <p><input type="checkbox"/></p>  | <p><b>ILO Remote Console:</b></p> <p>Output similar to that shown on the right will appear as the server access the command prompt.</p>   | <p><b>*** TRUNCATED OUTPUT ***</b></p> <pre> VPATH=/opt/TKLCcomcol/runcm7.2.0:/opt/TKLCcomcol/cm7.2.0 PRODPATH= RELEASE=7.2.0 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC/awpcommo n:/usr/TKLC/awptransportmgr:/usr/TKLC/comagent-gui:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/awpss7:/usr/TKLC/ccl:/usr/TKLC/dpi:/usr/ TKLC/capm/prod/plugins PRODPATH=/opt/comcol/prod RUNID=00 [admusr@NO-A ~]\$                     </pre> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP -B</p>   |
| <p>10.</p> <p><input type="checkbox"/></p> | <p><b>ILO Remote Console:</b></p> <p>Verify that the <b>XMI and IMI IP addresses</b> entered in <b>Procedure 5 Step 18</b> have been applied.</p> <p>NOTE: For RMS systems <b>XMI</b> and <b>IMI</b> are called by their device names:<br/> <b>XMI</b> = eth01<br/> <b>IMI</b> = eth02</p> <p>NOTE: The server's <b>XMI&amp;IMI</b> addresses can be verified by reviewing the server configuration through the GUI.</p> <p>i.e.<br/> <u>Main Menu</u><br/>         → Configuration<br/>         → Servers</p> <p>Scroll to line entry containing the server's <b>hostname</b>.</p> | <pre> [root@pc9040725-no-a ~]# ifconfig  grep in  grep -v inet6 control  Link encap:Ethernet  HWaddr 52:54:00:6C:3C:B4          inet addr:192.168.1.11  Bcast:192.168.1.255  Mask:255.255.255.0 imi      Link encap:Ethernet  HWaddr 52:54:00:F6:DC:4A          inet addr:169.254.2.2  Bcast:169.254.2.255  Mask:255.255.255.0 lo       Link encap:Local Loopback          inet addr:127.0.0.1  Mask:255.0.0.0 xmi      Link encap:Ethernet  HWaddr 52:54:00:0F:1F:3B          inet addr:10.250.39.19  Bcast:10.250.39.31  Mask:255.255.255.240                     </pre> <ul style="list-style-type: none"> <li>• “Check off” the associated Check Box as addition is completed for each Server.</li> </ul> <p><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP -B</p> |

Appendix K.1: Applying Server Configuration with ILO

|  |  |  |
|--|--|--|
| <p>11.</p> <p><input type="checkbox"/></p>   | <p><b>ILO Remote Console:</b></p> <p>Use the “<b>ntpq</b>” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p> | <pre>[root@pc9040725-no-a ~]# ntpq -np       remote           refid      st t when poll reach  delay  offset  jitter ===== *10.250.32.10      192.5.41.209    2 u  651 1024  377   0.339   0.583   0.048 +10.250.32.51     192.5.41.209    2 u  656 1024  377   0.416   0.641   0.086 [root@pc9040725-no-a ~]#</pre> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP -B</p> |
| <div style="display: flex; align-items: center;">  <p><b>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</b></p> </div>                     |  |  |
| <ul style="list-style-type: none"> <li>• Have the customer IT group provide a network path from the OAM server IP to the assigned NTP IP addresses.</li> </ul> <p><b>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 6.</b></p> |  |  |
| <p>12.</p> <p><input type="checkbox"/></p>   | <p><b>ILO Remote Console:</b></p> <p>Execute a “<b>alarmMgr</b>” to verify the current health of the server</p>  | <pre># alarmMgr --alarmStatus</pre> <p>NOTE: This command should return no output on a healthy system.</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP -B</p>   |
| <p>13.</p> <p><input type="checkbox"/></p>   | <p><b>ILO Remote Console:</b></p> <p>Exit session for the desired server</p>   | <pre># exit logout Connection to 192.168.1.16 closed. #</pre> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A <input type="checkbox"/> NOAMP -B</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>  |  |  |

K.2 Applying Server Configuration with PM&C

This procedure contains steps to apply server configuration scripts to virtual servers.

Appendix K.2: Applying Server Configuration with PM&C

|                    |  |
|--------------------|--|
| <p><b>Step</b></p> | <p>In this procedure you will apply server configuration scripts to virtual servers.</p> |
|--------------------|--|

Appendix K.2: Applying Server Configuration with PM&C

|  |  |   |
|--|--|---|
| <p>1.<br/><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>Connect to the NOAMP-A Server terminal at the Primary NOAMP site</p>  | <p>SSH from PM&amp;C: Use the Primary NOAMP-A XMI IP_address.</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p>   |
| <p>2.<br/><input type="checkbox"/></p> | <p><b>NOAMP Server A:</b></p> <p>1) Access the command prompt.</p> <p>2) Log into the Primary NOAMP-A server as the “<b>admusr</b>” user..</p> | <pre>login as: admusr root@10.250.xx.yy's password:&lt;admusr_password&gt; Last login: Mon Jul 30 10:33:19 2012 from 10.250.80.199 \$</pre> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p> |

Appendix K.2: Applying Server Configuration with PM&C

|                                    |   |  |
|------------------------------------|---|--|
| <p>3.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Output similar to that shown on the right will appear as the server access the command prompt.</p> | <p><b>*** TRUNCATED OUTPUT ***</b></p> <pre> VPATH=/opt/TKLCcomcol/runcm7.2.0:/opt/TKLCcomcol/cm7.2.0 PRODPATH= RELEASE=7.2.0 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC /awpcommon:/usr/TKLC/awptransportmgr:/usr/TKLC/comagent- gui:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/awpss7:/usr/TKLC/ccl:/usr/TKLC/ dpi:/usr/TKLC/capm/prod/plugins PRODPATH=/opt/comcol/prod RUNID=00 [admusr@NO-A ~]\$                     </pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B                 </p> <p> <input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4                 </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6                 </p> |
| <p>4.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Switch to root user.</p>   | <pre> 1. [admusr@pc9040833-no-a ~]\$ su - password: &lt;root_password&gt;                     </pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B                 </p> <p> <input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4                 </p>  |
| <p>5.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Change directory into the file management space</p>  | <pre> [root@pc9040833-no-a ~]# cd /var/TKLC/db/filemgmt                     </pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B                 </p> <p> <input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4                 </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6                 </p>  |

Appendix K.2: Applying Server Configuration with PM&C

|                                    |  |   |
|------------------------------------|--|---|
| <p>6.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Get a directory listing and find the desired servers configuration files</p> <p>Note: Server names are in red.</p>  | <pre>[root@pc9040833-no-a ~]# ls -ltr TKLCConfigData*.sh</pre> <p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>-rw-rw-rw- 1 root root 1257 Aug 17 14:01 TKLCConfigData.NOAMP-A.sh -rw-rw-rw- 1 root root 1311 Aug 17 14:30 TKLCConfigData.NO-B.sh</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B<br/> <input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4         </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5 <input type="checkbox"/> MP-6</p>  |
| <p>7.</p> <input type="checkbox"/> | <p><b>NOAMP Server A:</b></p> <p>Copy the configuration files found in the previous step to the PM&amp;C. server that manages the desired server</p> | <p><b>Note: The below example shows copying 2 files. Any number of configuration files can be copied in one step.</b></p> <pre>[root@pc9040833-no-a ~]# scp -p &lt;configuration_file-a&gt;&lt;configuration_file-b&gt; admusr@&lt;Desired_PMAC_IP&gt;:/tmp admusr@10.250.39.4's password:&lt;admusr_password&gt; TKLCConfigData.so-carync-a.sh          100% 1741    1.7KB/s 00:00 TKLCConfigData.so-carync-b.sh          100% 1741    1.7KB/s 00:00 [root@no-mrsvnc-a filemgmt]#</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B<br/> <input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4         </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5 <input type="checkbox"/> MP-6</p> |

Appendix K.2: Applying Server Configuration with PM&C

|                                     |   |   |
|-------------------------------------|---|---|
| <p>8.</p> <input type="checkbox"/>  | <p><b>NOAMP Server A:</b></p> <p>Exit the ssh session to NOAMP Server A:</p>                                      | <pre>[root@pc9040833-no-a ~]# exit logout Connection to 192.168.1.4 closed. #</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B<br/> <input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4         </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6         </p>  |
| <p>9.</p> <input type="checkbox"/>  | <p><b>PM&amp;C Server:</b></p> <p>Connect to the PM&amp;C Server terminal that manages the desired server</p>     | <p>Connect to the PM&amp;C server’s terminal using one of the access methods described in <b>Section 2.1.2</b> for HP Servers or [<b>Appendix A.2</b> or <b>Appendix A.3</b>].</p> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B<br/> <input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4         </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6         </p>   |
| <p>10.</p> <input type="checkbox"/> | <p><b>PM&amp;C Server:</b></p> <p>Copy the server configuration file to the Control IP for the desired server</p> | <p>Note: The name of the configuration file varies for each server. The output is just an example.</p> <pre>admusr@pmac ~]\$scp -p /tmp/&lt;configuration_file&gt; admusr@&lt;DesiredServer_Control_IP&gt;:/tmp/ admusr@192.168.1.10's password:&lt;admusr_password&gt; TKLCCConfigData.so-carync-a.sh          100% 1741    1.7KB/s 00:00 [root@pmac ~]</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p> <input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B<br/> <input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4         </p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p> <input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6         </p> |



Appendix K.2: Applying Server Configuration with PM&C

|   |  |   |
|---|--|---|
| <p>11.<br/><input type="checkbox"/></p> | <p><b>PM&amp;C Server:</b><br/><br/>Connect to the desired server console from the PM&amp;C Server Console</p>                       | <p>Using an SSH client such as putty, ssh to the virtual server using root credentials and the &lt; Control IP Address&gt; from pmac.</p> <pre>[root@PMAC-pc9040833 ~]# ssh admusr@&lt;DesiredServer_Control_IP&gt; admusr@192.168.1.10's password: &lt;admusr_password&gt;</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b><br/><input type="checkbox"/> MP-5 <input type="checkbox"/> MP-6</p>   |
| <p>12.<br/><input type="checkbox"/></p> | <p><b>Desired Server:</b><br/><br/>Output similar to that shown on the right will appear as the server access the command prompt</p> | <p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>VPATH=/opt/TKLCcomcol/runcm7.2.0:/opt/TKLCcomcol/cm7.2.0 PRODPATH= RELEASE=7.2.0 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC/awpcommon:/usr/TKLC/awptransportmgr:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/awpss7:/usr/TKLC/ccl:/usr/TKLC/dpi:/usr/TKLC/capm/prod/plugins PRODPATH=/opt/comcol/prod RUNID=00 [admusr@hostname1326744539 ~]\$</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b><br/><input type="checkbox"/> MP-5 <input type="checkbox"/> MP-6</p> |

Appendix K.2: Applying Server Configuration with PM&C

|                                     |   |   |
|-------------------------------------|---|---|
| <p>13.</p> <input type="checkbox"/> | <p><b>Desired Server:</b></p> <p>Switch to root user.</p>   | <pre>[admusr@hostname1326744539 ~]\$ su - password: &lt;root_password&gt;</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p>  |
| <p>14.</p> <input type="checkbox"/> | <p><b>Desired Server:</b></p> <p>Copy the <b>server</b> configuration file to the “<b>/var/tmp</b>” directory on the server, making sure to rename the file by omitting the server hostname from the file name.</p> <p><b>NOTE:</b> <i>The server will poll the <b>/var/tmp</b> directory for the presence of the configuration file and automatically execute it when found.</i></p> | <p><b>Example:</b></p> <p>TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh</p> <pre>[root@pc9040833-no-a ~]# cp -p /tmp/TKLCConfigData.NO-B.sh /var/tmp/TKLCConfigData.sh [root@pc9040833-no-a ~]#</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p> |

Appendix K.2: Applying Server Configuration with PM&C

|   |   |  |
|---|---|--|
| <p>15.<br/><input type="checkbox"/></p> | <p><b>Desired Server:</b></p> <p>After the script completes, a broadcast message will be sent to the terminal.</p> <p>Ignore the output shown and press the &lt;ENTER&gt; key to return to the command prompt.</p> <p><b>NOTE:</b> <i>The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.</i></p> | <p><b>*** NO OUTPUT FOR ≈ 3-20 MINUTES ***</b></p> <p>Broadcast message from root (Thu Dec 1 09:41:24 2011):</p> <p>Server configuration completed successfully!<br/>See /var/TKLC/appw/logs/Process/install.log for details.</p> <p>Please remove the USB flash drive if connected and reboot the server.<br/>&lt;ENTER&gt;</p> <p>[root@pc9040833-no-a ~]#</p> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p>  |
| <p>16.<br/><input type="checkbox"/></p> | <p><b>Desired Server:</b></p> <p>Configure the time zone.</p>   | <p>[root@pc9040833-no-a ~]# <code>set_ini_tz.pl &lt;time zone&gt;</code></p> <p><b>Note:</b> The following command example uses America/New_York time zone. Replace, as appropriate, with the time zone you have selected for this installation. For UTC, use "Etc/UTC". See Appendix P for a list of valid time zones.</p> <p>[root@pc9040833-no-a ~]# <code>set_ini_tz.pl "America/New_York"</code></p> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p> |

Appendix K.2: Applying Server Configuration with PM&C

|   |  |   |
|---|--|---|
| <p>17.<br/><input type="checkbox"/></p> | <p><b>Desired Server:</b><br/>Initiate a reboot of the <b>Server</b>.</p>  | <pre>[root@pc9040833-no-a ~]# <b>init 6</b></pre> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b><br/><input type="checkbox"/> MP-5 <input type="checkbox"/> MP-6</p>  |
| <p>18.<br/><input type="checkbox"/></p> | <p><b>PM&amp;C Server:</b><br/>The SSH session for the desired server was terminated by previous step.<br/><br/>Output similar to that shown on the right may be observed.</p> | <p>The previous step should cause the ssh session to the desired server to close and user should return to the PM&amp;C server console prompt. The user should see output similar to the below output:</p> <pre>Connection to 192.168.1.16 closed by remote host.<br/>Connection to 192.168.1.16 closed.<br/>#</pre> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b><br/><input type="checkbox"/> MP-5 <input type="checkbox"/> MP-6</p> |


Appendix K.2: Applying Server Configuration with PM&C

|  |  |   |
|--|--|---|
| <p>19.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C Server:</b></p> <p>Wait until server reboot is done. Then, SSH into the desired server using the Control IP Address.</p> <p>Output similar to that shown on the right may be observed</p> | <p>Wait about 9 minutes until the server reboot is done.</p> <p>Using an SSH client such as putty, ssh to the desired server using root credentials and the &lt;Control IP Address&gt;.</p> <pre>[root@PMAC-pc9040833 ~]# ssh admusr@192.168.1.xx admusr@192.168.1.20's password: &lt;admusr_password&gt;</pre> <p>Note: If the server isn't up, wait a few minutes and re-enter the <code>ssh</code> command. You can also try running the "<code>ping 192.168.1.xx</code>" command to see if the server is up.</p> <ul style="list-style-type: none"> <li>• "Check off" the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p> |
| <p>20.</p> <p><input type="checkbox"/></p> | <p><b>Desired Server:</b></p> <p>Output similar to that shown on the right will appear as the server access the command prompt.</p>  | <p><b>*** TRUNCATED OUTPUT ***</b></p> <pre>VPATH=/opt/TKLCComcol/runcm7.2.0:/opt/TKLCComcol/cm7.2.0 PRODPATH= RELEASE=7.2.0 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC/awpcommon:/usr/TKLC/awptransportmgr:/usr/TKLC/comagent-gui:/usr/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/awpss7:/usr/TKLC/ccl:/usr/TKLC/dpi:/usr/TKLC/capm/prod/plugins PRODPATH=/opt/comcol/prod RUNID=00 [admusr@pc9040833-no-a ~]\$</pre> <ul style="list-style-type: none"> <li>• "Check off" the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p>  |

Appendix K.2: Applying Server Configuration with PM&C

|  |  |  |
|--|--|--|
| <p>21.</p> <p><input type="checkbox"/></p> | <p><b>Desired Server:</b></p> <p>Switch to root user.</p>  | <pre>[admusr@hostname1326744539 ~]\$ su - password: &lt;root_password&gt;</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p>   |
| <p>22.</p> <p><input type="checkbox"/></p> | <p><b>Desired Server:</b></p> <p>Verify that the <b>XMI and IMI IP addresses</b> entered in <b>Procedure 5 Step 18</b> have been applied</p> <p><b>NOTE:</b> The server's <b>XMI and IMI</b> addresses can be verified by reviewing the server configuration through the GUI.</p> <p><i>i.e.</i><br/><b>Main Menu</b><br/>→ <b>Configuration</b><br/>→ <b>Servers</b></p> <p>Scroll to line entry containing the server's <b>hostname</b>.</p> | <pre>[root@pc9040725-no-a ~]# ifconfig  grep in  grep -v inet6 control  Link encap:Ethernet  HWaddr 52:54:00:6C:3C:B4          inet addr:192.168.1.11  Bcast:192.168.1.255 Mask:255.255.255.0 imi      Link encap:Ethernet  HWaddr 52:54:00:F6:DC:4A          inet addr:169.254.2.2   Bcast:169.254.2.255  Mask:255.255.255.0 lo       Link encap:Local Loopback          inet addr:127.0.0.1  Mask:255.0.0.0 xmi      Link encap:Ethernet  HWaddr 52:54:00:0F:1F:3B          inet addr:10.250.39.19  Bcast:10.250.39.31 Mask:255.255.255.240</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p> |

Appendix K.2: Applying Server Configuration with PM&C

|  |  |  |
|--|--|--|
| <p>23.</p> <p><input type="checkbox"/></p>   | <p><b>Desired Server:</b></p> <p>Use the “<b>ntpq</b>” command to verify that the server has connectivity to the assigned Primary and Secondary NTP server(s).</p> | <pre>[root@pc9040725-no-a ~]# ntpq -np       remote           refid      st t when poll reach  delay  offset jitter ===== *10.250.32.10      192.5.41.209      2 u  651 1024  377   0.339   0.583 0.048 +10.250.32.51      192.5.41.209      2 u  656 1024  377   0.416   0.641 0.086 [root@pc9040725-no-a ~]#</pre> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p> |
| <div style="display: flex; align-items: center;">  <p><b>IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP AND EXECUTE THE FOLLOWING STEPS:</b></p> </div>                    |  |  |
| <ul style="list-style-type: none"> <li>• Have the customer IT group provide a network path from the OAM server IP to the assigned NTP IP addresses.</li> </ul> <p><b>ONCE NETWORK CONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS PROCEDURE BEGINNING WITH STEP 17</b></p> |  |  |
| <p>24.</p> <p><input type="checkbox"/></p>   | <p><b>Desired Server:</b></p> <p>Execute a “<b>alarmMgr</b>” to verify the current health of the server</p>  | <pre># alarmMgr --alarmStatus</pre> <p>NOTE: This command should return no output on a healthy system.</p> <ul style="list-style-type: none"> <li>• “<b>Check off</b>” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1     <input type="checkbox"/> MP-2     <input type="checkbox"/> MP-3     <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b></p> <p><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p>   |

Appendix K.2: Applying Server Configuration with PM&C

|  |  |   |
|--|--|---|
| <p>25.<br/><input type="checkbox"/></p>                      | <p><b>Desired Server:</b><br/>Exit the SSH session for the desired server</p>  | <pre># exit logout Connection to 192.168.1.16 closed. #</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b><br/><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p> |
| <p>26.<br/><input type="checkbox"/></p>                      | <p><b>PM&amp;C Server:</b><br/><b>Optional Step:</b><br/>If the desired server is managed by a different PM&amp;C server, do this step.<br/><br/>Exit the SSH session for the second PM&amp;C server</p> | <pre># exit logout Connection to 192.168.1.4 closed. #</pre> <ul style="list-style-type: none"> <li>• “Check off” the associated <b>Check Box</b> as addition is completed for each <b>Server</b>.</li> </ul> <p><input type="checkbox"/> NOAMP-A   <input type="checkbox"/> NOAMP-B   <input type="checkbox"/> SOAM-A   <input type="checkbox"/> SOAM-B</p> <p><input type="checkbox"/> MP-1   <input type="checkbox"/> MP-2   <input type="checkbox"/> MP-3   <input type="checkbox"/> MP-4</p> <p><b>Gen-9 Normal Capacity Configuration:</b><br/><input type="checkbox"/> MP-5   <input type="checkbox"/> MP-6</p>  |
| <p><b>Repeat steps 1 - 26</b> for each remaining server.</p> |  |   |
| <p>27.<br/><input type="checkbox"/></p>                      | <p><b>PM&amp;C Server:</b><br/>Close PM&amp;C Server Console</p>   | <p><b>PM&amp;C Server:</b><br/>Close PM&amp;C Server Console</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p>              |  |   |



## Appendix L. Configure TVOE Network

This procedure contains steps to apply server configuration scripts to virtual servers.

### L.1 Configure TVOE Network for Normal or Low Capacity C-Class Configurations

This procedure will configure the network on TVOE servers that will host SOAM and MP VM Guests (Normal Capacity configuration) or NOAMP/SOAM and MP VM Guests (Low capacity configuration).



#### Requirements:

- An understanding of the topology being deployed, as outlined in reference [4].
- Interconnects should conform to reference [4].

#### Appendix L.1: Configure TVOE Network for Normal or Low Capacity C-Class Configurations

| Step                           | Procedure                                      | Result   |
|--------------------------------|--|--|
| 1.<br><input type="checkbox"/> | Access the server's console.                   | Connect to the tvoe server's console using one of the access methods described in <b>Section 2.1.2.</b> (switch to root user)  |
| 2.<br><input type="checkbox"/> | <b>TVOE server:</b><br>Add VLAN for XMI        | <pre>#netAdm add --device=bond0.&lt;xmi_vlan&gt; Interface bond0.# added</pre>   |
| 3.<br><input type="checkbox"/> | <b>TVOE server:</b><br>Add VLAN for IMI        | <pre>#netAdm add --device=bond0.&lt;imi_vlan&gt; Interface bond0.# added</pre>   |
| 4.<br><input type="checkbox"/> | <b>TVOE server:</b><br>Add VLAN for management | <p><b>Note:</b> Some lab deployments may host TVOE and PMAC on the XMI network/bridge instead of a separate routable management. This step is only required if the deployment has a separate management network.</p> <pre>#netAdm add --device=bond0.&lt;management_vlan&gt; Interface bond0.# added</pre> |

Appendix L.1: Configure TVOE Network for Normal or Low Capacity C-Class Configurations

| Step                                      | Procedure   | Result  |
|---|---|---|
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>TVOE server:</b></p> <p><i>Topology Check</i></p> | <p><u>The next steps will depend on your system topology. If you are unfamiliar with which topology you are deploying, access your Onboard Administrator (OA) web interface and look at "Rack Overview."</u></p> <p><u>This will present the rear view of the enclosure.</u></p> <p><u>Highlighted in red are a single pair of enclosure switches on a system without a dedicated signaling path (Topology 1/1A and Topology 3/3A) :</u></p>  <p><u>Highlighted in red are two pairs of enclosure switches on a system with dedicated signalling path (Topology 4/4A) :</u></p>  |

Appendix L.1: Configure TVOE Network for Normal or Low Capacity C-Class Configurations

| Step  | Procedure   | Result   |
|---|---|--|
| 6.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add bond for signaling<br><br>[Topology 4 only]                        | <b>Topology 4 and Topology 4A ONLY:</b><br><br>Deployments with two pairs of enclosure switches ( <b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will host XSI on <b>bond1</b> :<br><br><code>#netAdm add --device=bond1 --onboot=yes --bootproto=none</code><br>Interface bond1 added   |
| 7.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Bond interfaces eth11 and eth12 for signaling<br><br>[Topology 4 only] | <b>Topology 4 and Topology 4A ONLY:</b><br><br>Deployments with two pairs of enclosure switches ( <b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will host XSI on <b>bond1</b> :<br><br><code>#netAdm set --device=bond1 --bondInterfaces=eth11,eth12</code><br>Interface bond1 updated  |
| 8.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add VLAN for XSI-1   | Deployments with only one pair of enclosure switches ( <b>Topology 1/1A</b> and <b>Topology 3/3A</b> in reference [4]) will create XSI VLAN on <b>bond0</b> :<br><br><code>#netAdm add --device=bond0.&lt;xsi1_vlan&gt;</code><br>Interface bond0.# added<br><br>. . . <b>or</b> . . .<br><br>Deployments with two pairs of enclosure switches ( <b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will create XSI VLAN on <b>bond1</b> :<br><br><code>#netAdm add --device=bond1.&lt;xsi1_vlan&gt;</code><br>Interface bond1.# added |
| Repeat <b>Step 8</b> for additional XSI networks if they are present, each using its own unique<xsi_vlan> number. |   |  |
| 9.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add bridge network for XMI   | <code>#netAdm add --name=xmi --type=Bridge --bridgeInterface=bond0.&lt;xmi_vlan&gt;</code><br>Bridge xmi added!  |
| 10.<br><input type="checkbox"/>   | <b>TVOE server:</b><br>Add bridge network for IMI   | <code>#netAdm add --name=imi --type=Bridge --bridgeInterface=bond0.&lt;imi_vlan&gt;</code><br>Bridge imi added!  |
| 11.<br><input type="checkbox"/>   | <b>TVOE server:</b><br>Add bridge network for management                                      | <b>Note:</b> Some lab deployments may host TVOE and PMAC on the XMI network/bridge instead of a separate routable management. This step is only required if the deployment has a separate management network.<br><br><code>#netAdm add --name=management --type=Bridge \<br/>--bridgeInterface=bond0.&lt;management_vlan&gt;</code><br><br>Bridge management added!  |

Appendix L.1: Configure TVOE Network for Normal or Low Capacity C-Class Configurations

| Step  | Procedure  | Result   |
|---|--|--|
| 12.<br><input type="checkbox"/>   | <b>TVOE server:</b><br><br>Add bridge network for XSI-1                      | Deployments with only one pair of enclosure switches ( <b>Topology 1/1A</b> and <b>Topology 3/3A</b> in reference [4]) will create XSI VLAN on <b>bond0</b> :<br><br><pre>#netAdm add --name=xsi1 --type=Bridge \<br/>--bridgeInterface=bond0.&lt;xsi1_vlan\<br/>Bridge xsi1 added!</pre><br>... <b>or</b> ...<br><br>Deployments with two pairs of enclosure switches ( <b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will create XSI VLAN on <b>bond1</b> :<br><br><pre>#netAdm add --name=xsi1 --type=Bridge \<br/>--bridgeInterface=bond1.&lt;xsi1_vlan\<br/>Bridge xsi1 added!</pre> |
| Repeat <b>Step 12</b> for additional <b>XSI</b> networks if they are present, each using its own unique<xsi_vlan> number. |  |  |
| Execute <b>steps 13 and 14</b> if deployment hosts TVOE and PMAC on the XMI network/bridge.                               |  |  |
| 13.<br><input type="checkbox"/>   | <b>TVOE server:</b><br><br>Assign TVOE host an address on XMI network        | <pre>#netAdm set --type=Bridge --name=xmi--bootproto=none \<br/>--address=&lt;TVOE_XMI_address&gt; --netmask=&lt;tvoe_xmi_netmask\<br/>Bridge xmi updated!</pre>   |
| 14.<br><input type="checkbox"/>   | <b>TVOE Server:</b><br><br>Add the default route to XMI                      | <pre>#netAdm add --route=default --gateway=&lt;xmi_default_route_ip\<br/>--device=xmi<br/>Route to xmi added!</pre>  |
| Execute <b>steps 15 and 16</b> if deployment hosts TVOE and PMAC on a separate routable management network.               |  |  |
| 15.<br><input type="checkbox"/>   | <b>TVOE server:</b><br><br>Assign TVOE host an address on management network | <pre>#netAdm set --type=Bridge --name=management --bootproto=none \<br/>--address=&lt;TVOE_management_address&gt; --netmask=&lt;management_netmask\<br/>Bridge management updated!</pre>   |
| 16.<br><input type="checkbox"/>   | <b>TVOE Server:</b><br><br>Add the default route to management               | <pre>#netAdm add --route=default --<br/>gateway=&lt;management_default_route_ip\<br/>--device=management<br/>Route to management added!</pre>  |
| 17.<br><input type="checkbox"/>   | <b>TVOE Server:</b><br><br>Additional Configuration                          | Execute steps in L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc) to complete the TVOE Server Configuration.   |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b>  |  |  |

## L.2 Configure TVOE Network for Topology 7 (HP RMS & Oracle RMS with 8 ports)

This section for Topology 7 deployment requires **HP DL380** or **Oracle X5-2** rack mount servers.

### Requirements:

- An understanding of the topology being deployed, as outlined in reference [4].
- Interconnects should conform to reference [4]. (\*\*<nicx> values in the procedure below can be found in a table in section 2.0 in this document)

### Appendix L.2: Configure TVOE Network for Topology 7 (HP RMS and Oracle RMS with 8 ports)

| Step                           | Procedure                                      | Result  |
|--------------------------------|--|---|
| 1.<br><input type="checkbox"/> | Access the server's console.                   | Connect to the TVOE server's console using one of the access methods described in <b>Section 2.1.2. for HP OR one of the access methods</b> described <b>Appendix A.2 or Appendix A.3</b> ..(switch to root user)   |
| 2.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br>Create bond0 device | <p>Verify the bond0 network by running the following command</p> <pre>#netAdm query --device=bond0 Protocol: none IP Address: Netmask: On Boot: yes Bonded Mode: active-backup Monitor: MII Interval: 100 Enslaving: &lt; nic1 nic2&gt; Type: Bonding Bridge: Member of bridge control</pre> <p>If <b>bond0</b> exists and is enslaving <b>nic1</b> and <b>nic2</b> (refer to E58607-01[4] for device name assignment), continue onto <b>Step 3</b>. Otherwise the bond must be created with these following commands:</p> <pre>#netAdm add --device=bond0--onboot=yes --type=Bonding \ --mode=active-backup --miimon=100 Interface bond0 added</pre> <p>Execute the following to set the slave interfaces:</p> <pre>#netAdm set --device=&lt;nic1&gt; --type=Ethernet \ --master=control --slave=yes Interface &lt;ethernet_interface_1&gt; updated</pre> <pre>#netAdm set --device=&lt;nic2&gt; --type=Ethernet \ --master=control --slave=yes Interface &lt;ethernet_interface_2&gt; updated</pre> |

Appendix L.2: Configure TVOE Network for Topology 7 (HP RMS and Oracle RMS with 8 ports)

| Step                           | Procedure  | Result   |
|--------------------------------|--|--|
| 3.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br><i>Reset control network</i>                  | <p>Verify the control network by running the following command</p> <pre>#netAdm query --type=Bridge --name=control</pre> <p>Bridge Name: control<br/>On Boot: yes<br/>Protocol: dhcp<br/>Persistent: yes<br/>Promiscuous: no<br/>Bridge Interface: <b>bond0</b></p> <p>If the output matches the one above with Bridge Interface <b>bond0</b>, the Control Bridge must be modified <b>with the following command to remove bond interface zero</b>. Also, need to reset “onboot =yes”. Otherwise continue onto <b>Step 4</b>. Note: The control network needs to be removed from bond0 when PMAC is to be run on each Oracle RMS Server.</p> <pre>#netAdm set --type=Bridge --name=control --delBridgeInt=bond0</pre> <p>Bridge control updated</p> <pre># netAdm set --device=bond0 --onboot=yes</pre> <p>Interface bond0 updated</p> |
| 4.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br><i>Add VLAN for IMI</i>                       | <pre>#netAdm add --device=bond0.&lt;imi_vlan&gt;</pre> <p>Interface bond0.# added</p>  |
| 5.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br><i>Add bridge network for IMI</i>             | <pre># netAdm add --name=imi --type=Bridge --bridgeInterface=bond0.&lt;imi_vlan&gt;</pre> <p>Bridge imi added!</p>   |
| 6.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br><i>Add Bond for XMI network</i>               | <pre># netAdm add --device=bond1 --onboot=yes --bootproto=none</pre> <p>Interface bond1 added</p>  |
| 7.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br><i>Update Bond interfaces for XMI network</i> | <pre># netAdm set --device=bond1 --bondInterfaces=&lt;nic3&gt;,&lt;nic5&gt;</pre> <p>Interface bond1 updated</p>   |
| 8.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br><i>Add VLAN for XMI</i>                       | <pre># netAdm add --device=bond1.&lt;xmi_vlan&gt;</pre> <p>Interface bond1.# added</p>   |
| 9.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br><i>Add Bridge network for XMI</i>             | <pre># netAdm add --name=xmi --type=Bridge --bridgeInterface=bond1.&lt;xmi_vlan&gt;&gt;</pre>  |

## Appendix L.2: Configure TVOE Network for Topology 7 (HP RMS and Oracle RMS with 8 ports)

| Step  | Procedure  | Result   |
|---|--|--|
| <p><b>Note:</b> Some deployments may host TVOE and PMAC on the XMI network/bridge instead of a separate routable management. <b>Execute steps 10-12</b> if deployment hosts TVOE and PMAC on a separate routable management network. If XMI network/bridge is used execute steps 13-14.</p> |  |  |
| 10.<br><input type="checkbox"/>   | <p><b>TVOE server:</b></p> <p>Add VLAN for management</p>                      | <pre># netAdm add --device=bond1.&lt;management_vlan&gt;</pre> <p>Interface bond1.#added</p>   |
| 11.<br><input type="checkbox"/>   | <p><b>TVOE server:</b></p> <p>Add Bridge and TVOE IP on management network</p> | <pre># netAdm add --name=management --type=Bridge \ --bridgeInterface=bond1.&lt;management_vlan&gt; \ --bootproto=none --onboot=yes \ --address=&lt;tvoe_management_address&gt; \ --netmask=&lt;management_netmask&gt;</pre> <p>Bridge management added!</p> |
| 12.<br><input type="checkbox"/>   | <p><b>TVOE Server:</b></p> <p>Add the default route to management network</p>  | <pre>#netAdm add --route=default --gateway=&lt;management_default_route_ip&gt;\ --device=management</pre> <p>Route to management added</p>   |
| Execute steps 13-14 if the deployment hosts TVOE and PMAC on the XMI network/bridge.  |  |  |
| 13.<br><input type="checkbox"/>   | <p><b>TVOE server:</b></p> <p>Update Bridge and TVOE IP on XMI network</p>     | <pre># netAdm set --name=xmi --type=Bridge \ --bridgeInterface=bond1.&lt;xmi_vlan&gt; \ --bootproto=none --onboot=yes \ --address=&lt;tvoe_xmi_IP&gt; \ --netmask=&lt;tvoe_xmi_netmask&gt;</pre> <p>Bridge xmi added!</p>                                    |
| 14.<br><input type="checkbox"/>   | <p><b>TVOE Server:</b></p> <p>Add the default route to xmi network</p>         | <pre>#netAdm add --route=default --gateway=&lt;xmi_default_route_ip&gt;\ --device=xmi</pre> <p>Route to xmi added</p>  |
| 15.<br><input type="checkbox"/>   | <p><b>TVOE server:</b></p> <p>Add bond 2 interface</p>                         | <pre>netAdm add --device=bond2 --onboot=yes --bootproto=none</pre> <p>Interface bond2 added</p>  |
| 16.<br><input type="checkbox"/>   | <p><b>TVOE server:</b></p> <p>Update Bond2 with eth interfaces</p>             | <pre>netAdm set --device=bond2 --bondInterfaces=&lt;nic4&gt;,&lt;nic7&gt;</pre> <p>Interface bond2 updated</p>   |
| 17.<br><input type="checkbox"/>   | <p><b>TVOE server:</b></p> <p>Add VLAN for XSI1</p>                            | <pre># netAdm add --device=bond2.&lt;xsi1_vlan&gt;</pre> <p>Interface bond2.# added</p>  |
| 18.<br><input type="checkbox"/>   | <p><b>TVOE server:</b></p> <p>Add bridge network for XSI1</p>                  | <pre># netAdm add --name=xsi1 --type=Bridge\ --bridgeInterface=bond2.&lt;xsi1_vlan&gt;</pre> <p>Bridge xsi1 added!</p>   |

Appendix L.2: Configure TVOE Network for Topology 7 (HP RMS and Oracle RMS with 8 ports)

| Step  | Procedure  | Result   |
|---|--|--|
| <p>19.</p> <input type="checkbox"/>             | <p><b>TVOE server:</b><br/>(Topology 7E only)<br/>Signaling Network2 Configuration</p> | <p>a. For Topology 7E only (optional)</p> <ul style="list-style-type: none"> <li>i. Add Bond3 Interface for XSI2 network<br/># netAdm add --device=bond3 --onboot=yes --bootproto=none</li> <li>ii. Bond interfaces for XSI2 network<br/># netAdm set --device=bond3 --bondInterfaces=&lt;nic6&gt;,&lt;nic8&gt;</li> <li>iii. Add VLAN for XSI2<br/># netAdm add --device=bond3.&lt;xsi2_vlan&gt;</li> <li>iv. Add Bridge for XSI2 network<br/># netAdm add --name=xsi2 --type=Bridge --bridgeInterface=bond3.&lt;xsi2_vlan&gt;</li> </ul> |
| <p>20.</p> <input type="checkbox"/>             | <p><b>TVOE Server:</b><br/>Additional Configuration</p>                                | <p>Execute steps in L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc) to complete the TVOE Server Configuration.</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |



### L.3 Configure TVOE Network for Topology 7 (Oracle RMS with 6 ports)

This section for Topology 7 deployment requires **Oracle X5-2** rack mount servers.

**Requirements:**

- An understanding of the topology being deployed, as outlined in reference [4].
- Interconnects should conform to reference [4]. (\*\* <nicx> values in the procedure below can be found in a table in section 2.0 in this document)

#### Appendix L.3: Configure TVOE Network for Topology 7 (Oracle RMS with 6 ports)

| Step                           | Procedure                                      | Result  |
|--------------------------------|--|---|
| 1.<br><input type="checkbox"/> | Access the server's console.                   | Connect to the server's ILO VGA using the access method described in <b>Appendix A.2</b> or <b>Appendix A.3</b> . (switch to root)  |
| 2.<br><input type="checkbox"/> | <b>TVOE server:</b><br><br>Create bond0 device | <p>Verify the bond0 network by running the following command</p> <pre>#netAdm query --device=bond0 Protocol: none IP Address: Netmask: On Boot: yes Bonded Mode: active-backup Monitor: MII Interval: 100 Enslaving: &lt; nic1 nic2&gt; Type: Bonding Bridge: Member of bridge control</pre> <p>If <b>bond0</b> exists and is enslaving <b>nic1</b> and <b>nic2</b> (refer to E58607-01[4] for device name assignment), continue onto <b>Step 4</b>. Otherwise the bond must be created with these following commands:</p> <pre>#netAdm add --device=bond0--onboot=yes --type=Bonding \ --mode=active-backup --miimon=100 Interface bond0 added</pre> <p>Execute the following to set the slave interfaces:</p> <pre>#netAdm set --device=&lt;nic1&gt; --type=Ethernet \ --master=control --slave=yes Interface &lt;ethernet_interface_1&gt; updated</pre> <pre>#netAdm set --device=&lt;nic2&gt; --type=Ethernet \ --master=control --slave=yes Interface &lt;ethernet_interface_2&gt; updated</pre> |

Appendix L.3: Configure TVOE Network for Topology 7 (Oracle RMS with 6 ports)

| Step                               | Procedure   | Result   |
|------------------------------------|---|--|
| <p>3.</p> <input type="checkbox"/> | <p><b>TVOE server:</b></p> <p>Reset control network</p>               | <p>Verify the control network by running the following command</p> <pre>#netAdm query --type=Bridge --name=control Bridge Name: control     On Boot: yes Protocol: dhcp     Persistent: yes Promiscuous: no     Hwaddr: 00:10:e0:68:b6:5e     MTU: Delay : 4 Multicast Snooping : 0 Bridge Interface: bond0</pre> <p>If the output matches the one above with Bridge Interface <b>bond0</b>, the Control Bridge must be modified <b>with the following command to remove bond interface zero</b>. Also, need to reset “onboot=yes”. Otherwise continue onto <b>Step 4</b>. Note:The control network needs to be removed from bond0 when PMAC is to be run on each Oracle RMS Server.</p> <pre>#netAdm set --type=Bridge --name=control --delBridgeInt=bond0</pre> <p>Bridge control updated!</p> <pre># netAdm set --device=bond0 --onboot=yes</pre> <p><b>Interface bond0 updated</b></p> |
| <p>4.</p> <input type="checkbox"/> | <p><b>TVOE server:</b></p> <p>Add VLAN for IMI</p>                    | <pre># netAdm add --device=bond0.&lt;imi_vlan&gt;</pre> <p>Interface bond0.# added</p>   |
| <p>5.</p> <input type="checkbox"/> | <p><b>TVOE server:</b></p> <p>Add bridge network for IMI</p>          | <pre># netAdm add --name=imi --type=Bridge --bridgeInterface=bond0.&lt;imi_vlan&gt;</pre> <p>Bridge imi added!</p>   |
| <p>6.</p> <input type="checkbox"/> | <p><b>TVOE server:</b></p> <p>Add Bond 1 network</p>                  | <pre># netAdm add --device=bond1 --onboot=yes --bootproto=none</pre> <p>Interface bond1 added</p>  |
| <p>7.</p> <input type="checkbox"/> | <p><b>TVOE server:</b></p> <p>Update Bond1 interfaces for network</p> | <pre># netAdm set --device=bond1 --bondInterfaces=&lt;nic3&gt;,&lt;nic5&gt;</pre> <p>Interface bond1 updated</p>   |
| <p>8.</p> <input type="checkbox"/> | <p><b>TVOE server:</b></p> <p>Add Bond 2 network</p>                  | <pre># netAdm add --device=bond2 --onboot=yes --bootproto=none</pre> <p>Interface bond2 added</p>  |

Appendix L.3: Configure TVOE Network for Topology 7 (Oracle RMS with 6 ports)

| Step   | Procedure  | Result  |
|--|--|---|
| 9.<br><input type="checkbox"/>   | <b>TVOE server:</b><br><br>Update Bond2 interfaces for network | <pre># netAdm set --device=bond2 --bondInterfaces=&lt;nic6&gt;,&lt;nic7&gt;</pre><br>Interface bond2 updated  |
| 10.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br>Add VLAN for XMI                    | <b>For Topology 7:</b><br><pre>#netAdm add --device=bond1.&lt;xmi_vlan&gt;</pre><br>Interface bond1.# added<br><br><b>For Topology 7E:</b><br><pre># netAdm add --device=bond0.&lt;xmi_vlan&gt;</pre><br>Interface bond0.# added  |
| 11.  | <b>TVOE server:</b><br><br>Add bridge network for XMI          | <b>For Topology 7:</b><br><pre># netAdm add --name=xmi --type=Bridge --bridgeInterface=bond1.&lt;xmi_vlan&gt;&gt;</pre><br><br><b>For topology 7E:</b><br><pre># netAdm add --name=xmi --type=Bridge --bridgeInterface=bond0.&lt;xmi_vlan&gt;&gt;</pre>   |
| <p><b>Note:</b>Some deployments may host TVOE and PMAC on the XMI network/bridge instead of a separate routable management. <b>Execute steps 12-14</b> if deployment hosts TVOE and PMAC on a separate routable management network. Or, <b>execute steps 15-16</b>, if the deployment hosts TVOE and PMAC on the XMI network/bridge.</p> |  |   |
| 12.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br>Add VLAN for management             | <b>For Topology 7:</b><br><pre>#netAdm add --device=bond1.&lt;management_vlan&gt;</pre><br>Interface bond1.# added<br><br><b>For Topology 7E:</b><br><pre>#netAdm add --device=bond0.&lt;management_vlan&gt;</pre><br>Interface bond0.# added   |
| 13.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br>Add bridge network for management   | <b>For Topology 7:</b><br><pre># netAdm add --name=management --type=Bridge<br/>--bridgeInterface=bond1.&lt;management_vlan&gt; --bootproto=none --onboot=yes<br/>--address=&lt;TVOE_management_address&gt;--netmask=&lt;management_netmask&gt;</pre><br><br><b>For Topology 7E:</b><br><pre># netAdm add --name=management --type=Bridge<br/>--bridgeInterface=bond0.&lt;management_vlan&gt; --bootproto=none --onboot=yes<br/>--address=&lt;TVOE_management_address&gt;--netmask=&lt;management_netmask&gt;</pre><br><br>Bridge management added! |

## Appendix L.3: Configure TVOE Network for Topology 7 (Oracle RMS with 6 ports)

| Step   | Procedure   | Result  |
|--|---|---|
| 14.<br><input type="checkbox"/>  | Add the default route to management                         | <pre>#netAdm add --route=default --gateway=&lt;management_default_route_ip&gt; --device=management</pre> <p>Route to management added!</p>  |
| <b>Execute steps 15-16 if not using a separate routable Management network</b> |   |   |
| 15.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Update Bridge network for XMI        | For Topology 7:<br><pre># netAdm set --name=xmi --type=Bridge --bridgeInterface=bond1.&lt;xmi_vlan&gt; --bootproto=none -onboot=yes --address=&lt;tvoe_IP&gt; --netmask=&lt;xmi_network_netmask&gt;</pre> <p>For Topology 7E:<br/><pre># netAdm set --name=xmi --type=Bridge --bridgeInterface=bond0.&lt;xmi_vlan&gt; --bootproto=none -onboot=yes --address=&lt;tvoe_IP&gt; --netmask=&lt;xmi_network_netmask&gt;</pre> <p>Bridge xmi added!</p></p> |
| 16.<br><input type="checkbox"/>  | <b>TVOE Server:</b><br>Add the default route to xmi network | <pre>#netAdm add --route=default --device=xmi \ --gateway=&lt;xmi_gateway_ip&gt;</pre> <p>Route to xmi added</p>  |
| 17.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add VLAN for XSI1                    | For Topology 7:<br><pre># netAdm add --device=bond2.&lt;xsi1_vlan&gt;</pre> <p>Interface bond2.# added</p> <p>For Topology 7E:<br/><pre># netAdm add --device=bond1.&lt;xsi1_vlan&gt;</pre> <p>Interface bond1.# added</p></p>  |
| 18.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add bridge network for XSI1          | For Topology 7:<br><pre># netAdm add --name=xsi1 --type=Bridge --bridgeInterface= bond2.&lt;xsi1_vlan&gt;</pre> <p>For Topology 7E:<br/><pre># netAdm add --name=xsi1 --type=Bridge --bridgeInterface= bond1.&lt;xsi1_vlan&gt;</pre> <p>Bridge xsi1 added!</p></p>  |
| 19.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add VLAN for XSI2                    | For Topology 7E only:<br><pre># netAdm add --device=bond2.&lt;xsi2_vlan&gt;</pre> <p>Interface bond2.# added</p>  |
| 20.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add bridge network for XSI2          | For Topology 7E only:<br><pre># netAdm add --name=xsi2 --type=Bridge \ --bridgeInterface=bond2.&lt;xsi2_vlan&gt;</pre> <p>Bridge xsi2 added!</p>  |

**Appendix L.3: Configure TVOE Network for Topology 7 (Oracle RMS with 6 ports)**

| Step  | Procedure  | Result   |
|---|--|--|
| 21.<br><input type="checkbox"/>                 | <i>TVOE Server:</i><br><br><i>Additional Configuration</i> | Execute steps in L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc) to complete the TVOE Server Configuration. |
| <b><i>THIS PROCEDURE HAS BEEN COMPLETED</i></b> |  |  |

**L.4 Configure TVOE Network for Topology 7 (Oracle RMS with 4 ports)**

This section for Topology 7 deployment requires **Oracle X5-2 Config 2** (LOM and two dual port PCI) rack mount servers.

**Requirements:**

- An understanding of the topology being deployed, as outlined in reference [4].
- Interconnects should conform to reference [4]. (\*\* <nicx> values in the procedure below can be found in a table in section 2.0 in this document)

**Appendix L.4: Configure TVOE Network for Topology 7 (Oracle RMS with 4 ports)**

| Step                           | Procedure                           | Result   |
|--------------------------------|-------------------------------------|--|
| 1.<br><input type="checkbox"/> | <i>Access the server's console.</i> | Connect to the server's ILO VGA using the access method described in <b>Appendix A.2</b> or <b>Appendix A.3</b> . (switch to root) |

## Appendix L.4: Configure TVOE Network for Topology 7 (Oracle RMS with 4 ports)

| Step  | Procedure   | Result   |
|---|---|--|
| <p>2.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div> | <p><b>TVOE server:</b></p> <p>Create bond0 device</p> | <p>Verify the bond0 network by running the following command</p> <pre>#netAdm query --device=bond0 Protocol: none IP Address: Netmask: On Boot: yes Bonded Mode: active-backup Monitor: MII Interval: 100 Enslaving: &lt; nic1 nic2&gt; Type: Bonding Bridge: Member of bridge control</pre> <p>If <b>bond0</b> exists and is enslaving <b>nic1</b> and <b>nic2</b>(refer to E58607-01[4] for device name assignment), continue onto <b>Step 3</b>. Otherwise the bond must be created with these following commands:</p> <pre>#netAdm add --device=bond0--onboot=yes --type=Bonding \ --mode=active-backup --miimon=100 Interface bond0 added</pre> <p>Execute the following to set the slave interfaces:</p> <pre>#netAdm set --device=&lt;nic1&gt; --type=Ethernet \ --master=control --slave=yes Interface &lt;ethernet_interface_1&gt; updated</pre> <pre>#netAdm set --device=&lt;nic2&gt; --type=Ethernet \ --master=control --slave=yes Interface &lt;ethernet_interface_2&gt; updated</pre> |

## Appendix L.4: Configure TVOE Network for Topology 7 (Oracle RMS with 4 ports)

| Step  | Procedure  | Result   |
|---|--|--|
| 3.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br><i>Reset control network</i>      | <p>Verify the control network by running the following command</p> <pre>#netAdm query --type=Bridge --name=control Bridge Name: control   On Boot: yes Protocol: dhcp   Persistent: yes Promiscuous: no   Hwaddr: 00:10:e0:68:b6:5e   MTU: Delay : 4 Multicast Snooping : 0 Bridge Interface: bond0</pre> <p>If the output matches the one above with Bridge Interface <b>bond0</b>, the Control Bridge must be modified <b>with the following command to remove bond interface zero</b>. Also, need to reset “onboot=yes”. Otherwise continue onto <b>Step 4</b>. The control network needs to be removed from bond0 when PMAC is to be run on each Oracle RMS Server.</p> <pre>#netAdm set --type=Bridge --name=control --delBridgeInt=bond0</pre> <p>Bridge control updated!</p> <pre># netAdm set --device=bond0 --onboot=yes</pre> <p>Interface bond0 updated</p> |
| 4.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br><i>Add VLAN for IMI</i>           | <pre># netAdm add --device=bond0.&lt;imi_vlan&gt;</pre> <p>Interface bond0.# added</p>   |
| 5.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br><i>Add Bridge network for IMI</i> | <pre># netAdm add --name=imi --type=Bridge --bridgeInterface=bond0.&lt;imi_vlan&gt;</pre> <p>Bridge imi added!</p>   |
| 6.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br><i>Add VLAN for XMI</i>           | <pre>#netAdm add --device=bond0.&lt;xmi_vlan&gt;</pre> <p>Interface bond0.# added</p>  |
| 7.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br><i>Add Bridge network for XMI</i> | <pre># netAdm add --name=xmi --type=Bridge --bridgeInterface=bond0.&lt;xmi_vlan&gt;&gt;</pre> <p>Bridge xmi added!</p>   |
| <p><b>Note:</b>Some deployments may host TVOE and PMAC on the XMI network/bridge instead of a separate routable management. <b>Execute steps 8-10</b> if the deployment hosts TVOE and PMAC on a separate routable management network. Or <b>execute steps 11-12</b>, if the deployment hosts TVOE and PMAC on the XMI network/bridge</p> |  |  |
| 8.<br><input type="checkbox"/>  | <b>TVOE server:</b><br><br><i>Add VLAN for management</i>    | <pre>#netAdm add --device=bond0.&lt;management_vlan&gt;</pre> <p>Interface bond0.# added</p>   |

Appendix L.4: Configure TVOE Network for Topology 7 (Oracle RMS with 4 ports)

| Step   | Procedure   | Result   |
|--|---|--|
| 9.<br><input type="checkbox"/>   | <b>TVOE server:</b><br>Add bridge and TVOE IP on management network         | <pre># netAdm add --name=management --type=Bridge \<br/>--bridgeInterface=bond0.&lt;management_vlan\<br/>--bootproto=none --onboot=yes \<br/>--address=&lt;TVOE_management_address\<br/>--netmask=&lt;management_netmask&gt;</pre><br>Bridge management added!   |
| 10.<br><input type="checkbox"/>  | Add the default route to management   | <pre>netAdm add --route=default --gateway=&lt;management_default_route_ip\<br/>--device=management</pre><br>Route to management added!   |
| <b>Execute steps 11-12, if the deployment hosts TVOE and PMAC on the XMI network/bridge.</b> |   |  |
| 11.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Update bridge network for XMI                        | <pre># netAdm set --name=xmi --type=Bridge \<br/>--bridgeInterface=bond0.&lt;xmi_vlan\<br/>--bootproto=none --onboot=yes \<br/>--address=&lt;tvoe_xmi_IP\<br/>--netmask=&lt;xmi_network_netmask&gt;</pre><br>Bridge xmi updated!   |
| 12.<br><input type="checkbox"/>  | <b>TVOE Server:</b><br>Add the default route to xmi network                 | <pre>#netAdm add --route=default --device=xmi \<br/>--gateway=&lt;xmi_gateway_ip&gt;</pre><br>Route to xmi added   |
| 13.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add bond1 interface                                  | <pre># netAdm add --device=bond1 --onboot=yes --bootproto=none</pre><br>Interface bond1 added  |
| 14.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Update Bond1 with eth interfaces                     | <pre># netAdm set --device=bond1 --bondInterface=&lt;nic5&gt;,&lt;nic6&gt;</pre><br>Interface bond1 updated  |
| 15.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add VLAN for XSI1                                    | <pre># netAdm add --device=bond1.&lt;xsi1_vlan&gt;</pre><br>Interface bond1.# added  |
| 16.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Add bridge network for XSI1                          | <pre># netAdm add --name=xsi1 --type=Bridge \<br/>--bridgeInterface=bond1.&lt;xsi1_vlan&gt;</pre><br>Bridge xsi1 added!  |
| 17.<br><input type="checkbox"/>  | <b>TVOE server:</b><br>Topology 7E only<br>Signaling Network2 Configuration | For Topology 7E only (optional)<br>i. Add VLAN for XSI 2<br><pre># netAdm add --device=bond1.&lt;xsi2_vlan&gt;</pre><br>Interface bond1.# added<br>ii. Add bridge for XSI2 network<br><pre># netAdm add --name=xsi2 --type=Bridge -- \<br/>    bridgeInterface=bond1.&lt;xsi2_vlan&gt;</pre><br>Bridge xsi1 added! |



**Appendix L.4: Configure TVOE Network for Topology 7 (Oracle RMS with 4 ports)**

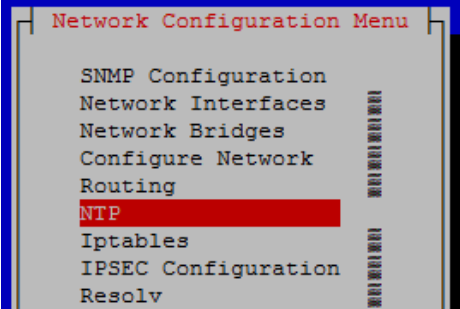
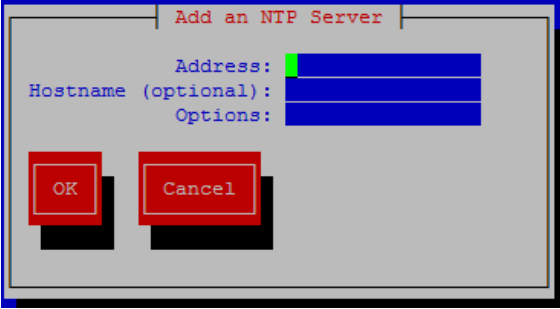
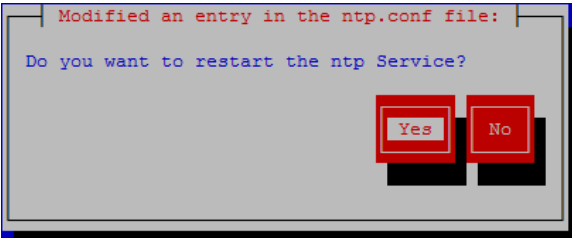
| Step                                     | Procedure   | Result   |
|--|---|--|
| <b>18.</b><br><input type="checkbox"/>   | <b>TVOE Server:</b><br><br>Additional Configuration | Execute steps in L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc) to complete the TVOE Server Configuration. |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |   |  |

**L.5 Configure Additional NTP Server (Setup Recommendation)**

**Appendix L.5: Configure Additional NTP Server (Setup Recommendation)**

| Step                                  | Procedure                    | Result   |
|---------------------------------------|------------------------------|--|
| <b>1.</b><br><input type="checkbox"/> | Access the server's console. | Connect to the server's console using one of the access methods described in <b>Section 2.1.2.</b> |

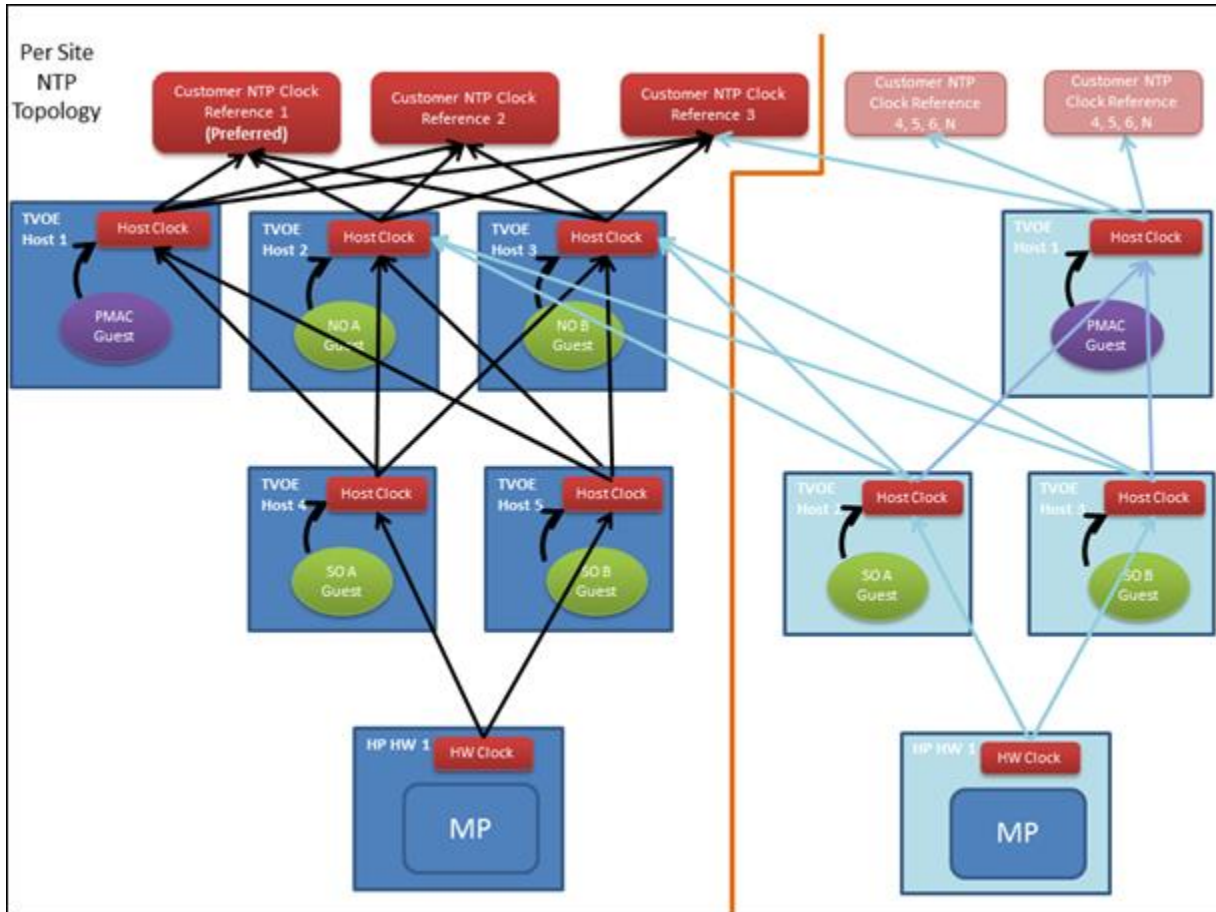
Appendix L.5: Configure Additional NTP Server (Setup Recommendation)

| Step  | Procedure  | Result  |
|---|--|---|
| <p>2.</p> <p><input type="checkbox"/></p>       | <p><b>TVOE Server:</b></p> <p>Add additional NTP server.</p>   | <p>Set the server hostname by running the following:</p> <pre>#su - platcfg</pre> <ol style="list-style-type: none"> <li>1. Navigate to <b>Network Configuration &gt;NTP</b>.</li> </ol>  <ol style="list-style-type: none"> <li>2. Select <b>Edit</b>, then “Add a New NTP Server.”</li> <li>3. Enter the IP Address of the <b>additional NTP</b> server.</li> </ol>  <ol style="list-style-type: none"> <li>4. Select <b>OK</b>.</li> <li>5. Jump back to <b>Step 2</b> if more NTP servers need to be added.</li> <li>5. Select <b>Exit</b>.</li> <li>6. Select <b>Yes to restart ntp Service</b>.</li> </ol>  <ol style="list-style-type: none"> <li>7. Select <b>Exit</b> twice to leave platcfg.</li> </ol> |
| <p>3.</p> <p><input type="checkbox"/></p>       | <p><b>Desired Server:</b></p> <p>Use the “<b>ntpq</b>” command to verify that the server has connectivity to the assigned NTP servers.</p> | <pre># ntpq -np       remote                refid           st t when poll reach  delay  offset  jitter ===== *10.250.32.10      192.5.41.209    2 u  651 1024  377   0.339   0.583   0.048 +10.250.32.51     192.5.41.209    2 u  656 1024  377   0.416   0.641   0.086 2. #</pre>   |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |   |

## Oracle Communications User Data Repository Installation and Configuration Guide

Example Diagram with multiple NTP servers:

Care should be taken to ensure that all NTP references are reachable through the appropriate networking configuration. It is recommended to have minimum of 3 and up to 4 external NTP servers for reliable functioning of NTP service.



### L.6 Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

The following are additional configuration steps required after configuring the TVOE network.

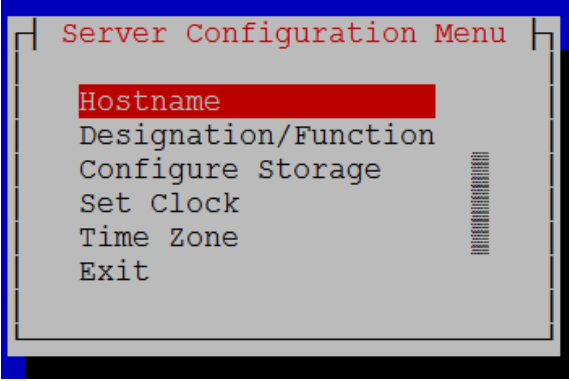
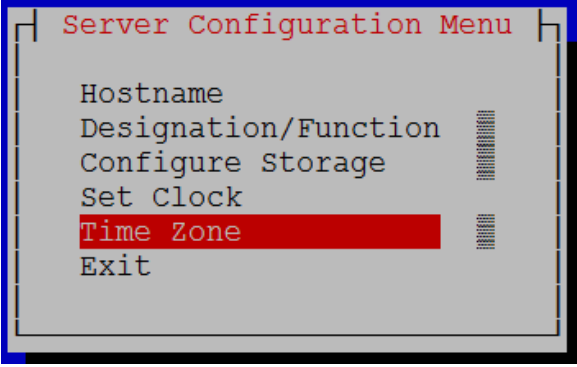
#### Requirements:

- An understanding of the topology being deployed, as outlined in reference [4].

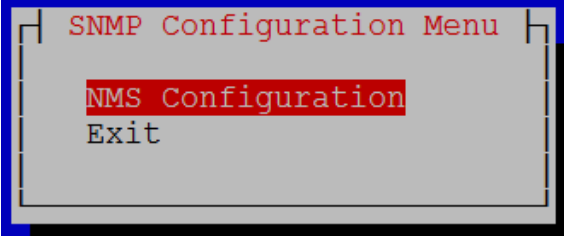
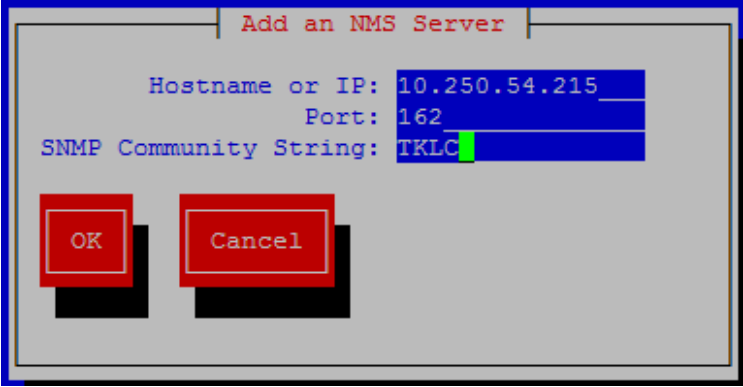
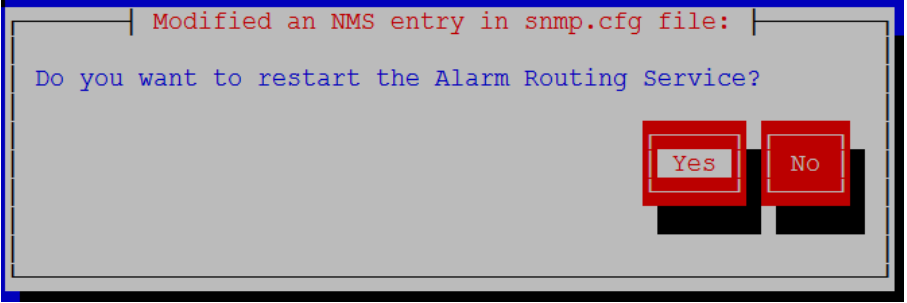
#### Appendix L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

| Step | Procedure                    | Result   |
|------|------------------------------|--|
| 1.   | Access the server's console. | Connect to the server's ILO VGA using the access method described in <b>Appendix A.2</b> or <b>Appendix A.3</b> . (switch to root) |

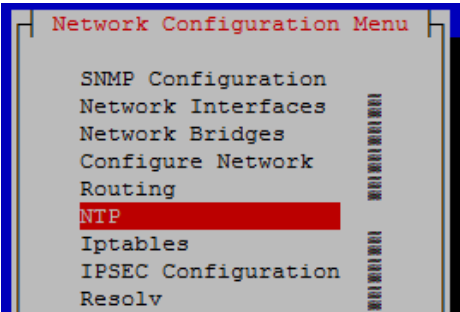
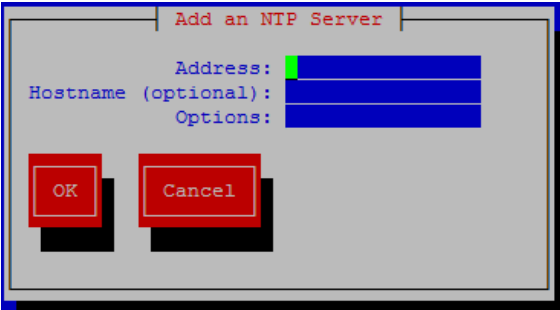
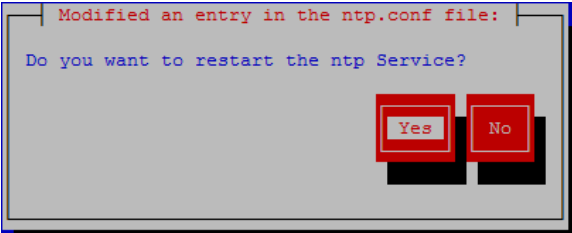
Appendix L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

| Step   | Procedure  | Result  |
|--|--|---|
| <p>2.</p> <input type="checkbox"/>   | <p><b>TVOE Server:</b><br/>Set Hostname</p>                        | <p>Set the server hostname by running the following:<br/>#su - platcfg</p> <ol style="list-style-type: none"> <li>1. Navigate to <b>Server Configuration &gt;Hostname</b></li> </ol>  <ol style="list-style-type: none"> <li>2. Select Edit</li> <li>3. Set TVOE Management Server hostname</li> <li>4. Press OK.</li> <li>5. Navigate out of Hostname</li> </ol>                          |
| <p>3.</p> <input type="checkbox"/> | <p><b>TVOE Server:</b><br/>Set Time Zone and/or Hardware Clock</p> | <p>Set the time zone and/or hardware clock</p> <ol style="list-style-type: none"> <li>1. Navigate to <b>Server Configuration &gt;Time Zone</b></li> </ol>  <ol style="list-style-type: none"> <li>2. Select Edit.</li> <li>3. Set the time zone</li> <li>4. Answer yes to “Set Hardware Clock to GMT”.</li> <li>5. Press YES</li> <li>6. Navigate out of Server Configuration</li> </ol> |

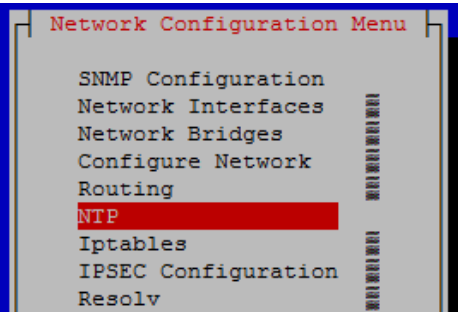
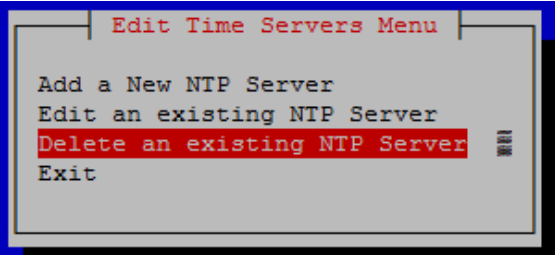
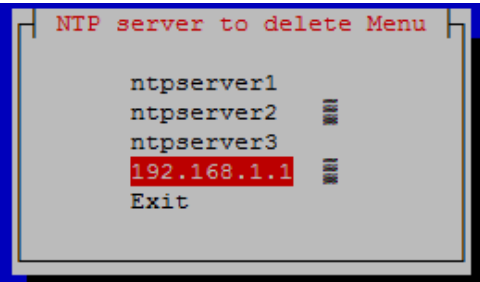
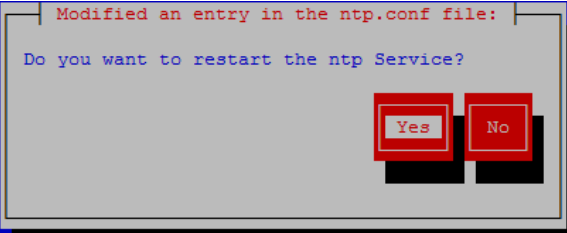
Appendix L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

| Step                                      | Procedure   | Result   |
|---|---|--|
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>TVOE Server:</b></p> <p>Configure SNMP trap destination</p> | <p>Configure SNMP trap destination.</p> <p>1.Navigate to <b>Network Configuration &gt;SNMP Configuration &gt;NMS Configuration</b>.</p>  <p>2. Select <b>Edit</b> and then choose 'Add a New NMS Server'.</p> <p>3.The 'Add an NMS Server' page will be displayed.</p>  <p>4.Complete the form by entering in all information about the SNMP trap destination.</p> <p>5.Select <b>OK</b> to finalize the configuration.</p> <p>6.The 'NMS Server Action Menu' will now be displayed.</p> <p>7.Select <b>Exit</b>. The following dialogue will then be presented:</p>  <p>8.Select <b>Yes</b> and then wait a few seconds while the Alarm Routing Service is restarted.</p> <p>9.At that time the SNMP Configuration Menu will be presented.</p> <p><i>Note: All alarm information will then be sent to the NMS located at the destination.</i></p> |

Appendix L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

| Step                                      | Procedure                                       | Result  |
|---|---|---|
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>TVOE Server:</b></p> <p>Configure NTP</p> | <ol style="list-style-type: none"> <li>Navigate to <b>Network Configuration &gt;NTP</b>.</li> </ol>  <ol style="list-style-type: none"> <li>Select <b>Edit</b>, then “Add a New NTP Server.”</li> <li>Enter the IP Address of a <b>Customer provided NTP server</b>.</li> </ol>  <ol style="list-style-type: none"> <li>Select <b>OK</b>.</li> <li>Select <b>Exit</b>.</li> <li>Select <b>Yes to restart ntp Service</b>.</li> </ol>  <ol style="list-style-type: none"> <li>Select <b>Exit</b>.</li> </ol> |

Appendix L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

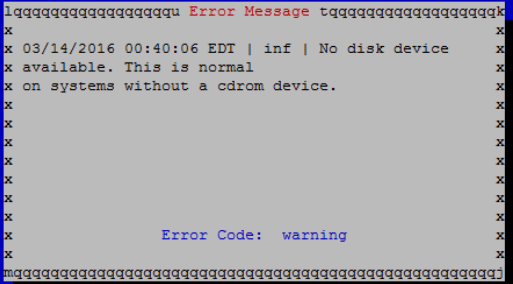
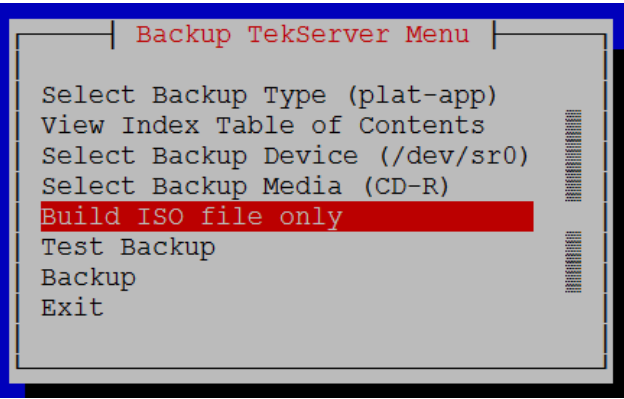
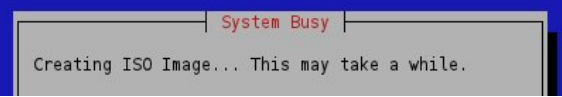
| Step                                      | Procedure   | Result  |
|---|---|---|
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>TVOE Server:</b></p> <p>Delete all default NTP servers.</p> | <ol style="list-style-type: none"> <li>Navigate to <b>Network Configuration &gt;NTP</b>.                      </li> <li>Select <b>Edit</b>, then “Delete an existing NTP Server.”                      </li> <li>Select the 192.168.1.1 NTP address.                      </li> <li>Select <b>OK</b>.</li> <li>Select <b>Exit</b>.</li> <li>Select <b>Yes to restart ntp Service</b>.                      </li> <li>Select <b>Exit</b> twice to leave platcfg.</li> </ol> |
| <p>7.</p> <p><input type="checkbox"/></p> | <p><b>TVOE Server:</b></p> <p>Reboot the server</p>               | <p>Reboot the server:</p> <pre># init 6</pre> <p>Wait until the reboot completes and re-login with TVOE root credentials.</p>   |

Appendix L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

| Step   | Procedure   | Result   |
|--|---|--|
| <p>8.</p> <input type="checkbox"/> | <p><b>TVOE Server:</b><br/>Verify server health</p> | <p>Verify server health:<br/># <code>alarmMgr --alarmStatus</code><br/><br/><i>Note: This command should return no output on a healthy system.</i></p> |



Appendix L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

| Step                                      | Procedure   | Result  |
|---|---|---|
| <p>9.</p> <p><input type="checkbox"/></p> | <p><b>TVOE Server:</b></p> <p>Perform a TVOE backup</p> | <p>Login as platcfg user. The platcfg main menu will be shown</p> <pre>#su - platcfg</pre> <p><b>1. Navigate to Maintenance&gt;Backup and Restore&gt;Backup Platform (CD/DVD)</b></p> <p>Note: The following error about 'no disk device' may be shown. Hit 'Enter' to get past it.</p>  <p><b>2. The 'Backup TekServer Menu' page will now be shown.</b></p>  <p><b>3. Select Build ISO file only.</b></p> <p><i>Note: Creating the ISO image may happen so quickly that this screen may only appear for an instant.</i></p>  <p><b>4. After the ISO is created, platcfg will return to the Backup TekServer Menu as shown in step 2.</b></p> <p><b>5. The ISO has been created and is located in the /var/TKLC/bkp/ directory. An example filename of a backup file that was created is: "hostname1307466752-plat-app-201104171705.iso"</b></p> <p><b>6. Exit platcfg.</b></p> |

Appendix L.6: Configure TVOE Server (Hostname, Time Zone, SNMP, NTP, etc)

| Step  | Procedure  | Result   |
|---|--|--|
| <p>10.</p> <p><input type="checkbox"/></p>      | <p><b>Customer Server SSH:</b></p> <p>Copy backup image to the customer server</p> | <p>Login to the customer server and copy backup image to the customer server where it can be safely stored.</p> <p>If the customer system is a Linux system, please execute the following command to copy the backup image to the customer system.</p> <pre># scp tvoexfer@&lt;TVOE_IP_Address&gt;:backup/* /path/to/destination/</pre> <p>When prompted, enter the tvoexfer user password and press <b>Enter</b>.</p> <p>An example of the output looks like:</p> <pre># scp tvoexfer@&lt;TVOE IP Address&gt;:backup/* /path/to/destination/ tvoexfer@10.24.34.73's password: hostname1301859532-plat-app-301104171705.iso 100% 134MB 26.9MB/s 00:05</pre> <p>The TVOE backup file has now been successfully placed on the Customer System.</p> |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |

## Appendix M. Removing Disk Array Configuration

This procedure contains steps to remove a prior disk array configuration. This is useful towards re-installing Oracle Communications User Data Repository on hardware with disk arrays that have hosted prior Oracle Communications User Data Repository instances. The steps here are only to be run after TPD is installed and before Oracle Communications User Data Repository application is installed.

### M.1 Removing RMS Disk Array Configuration for HP

**Notice:** This section provides guidance that is only required when installing Oracle Communications User Data Repository onto hardware that has hosted prior installations. As such it is intended for lab use, and for production environments only in the case of disaster recovery.

#### Appendix M.1: Removing RMS Disk Array Configuration

| Step                           | Procedure                          | Result   |
|--------------------------------|------------------------------------|--|
| 1.<br><input type="checkbox"/> | Access the server's console.       | Connect to the RMS server's console using one of the access methods described in <b>Section 2.1.2.</b> |
| 2.<br><input type="checkbox"/> | Change to root user home directory | # <code>cd</code>  |

Appendix M.1: Removing RMS Disk Array Configuration

| Step                                   | Procedure  | Result   |
|--|--|--|
| <p>3.<br/><input type="checkbox"/></p> | <p>Remove volume group or storage pool</p>                   | <pre># lvs stripe_vg LV          VG          Attr          LSize   Pool Origin Data% Move Log Cpy%Sync Convert rundb      stripe_vg -wa-ao---- 385.01g  If stripe_vg is present then remove it  #vgremove stripe_vg Do you really want to remove volume group "stripe_vg" containing 1 logical volumes? [y/n]: y Do you really want to remove active logical volume rundb? [y/n]: y  # virsh pool-list Name                State      Autostart ----- stripePool_vg       active    yes vgguests            active    yes  If stripePool_vg is present then remove it with below steps  # virsh pool-destroy stripePool_vg Pool stripePool_vg destroyed  # virsh pool-undefine stripePool_vg Pool stripePool_vg has been undefined  # vgremove stripePool_vg Volume group "stripePool_vg" successfully removed</pre> |
| <p>4.<br/><input type="checkbox"/></p> | <p>Remove all three physical volumes sdb, sdc, &amp; sdd</p> | <pre>#pvremove /dev/sdb Labels on physical volume "/dev/sdb" successfully wiped  #pvremove /dev/sdc Labels on physical volume "/dev/sdc" successfully wiped  #pvremove /dev/sdd Labels on physical volume "/dev/sdd" successfully wiped</pre>  |
| <p>5.<br/><input type="checkbox"/></p> | <p>Delete logical drive slot 2 ld 1</p>                      | <pre># hpssacli ctrl all show config</pre>   |

Appendix M.1: Removing RMS Disk Array Configuration

| Step   | Procedure                                    | Result   |
|--|--|--|
| <p>6.</p> <input type="checkbox"/>   | <p>Verify output matches expected values</p> | <p><b>IMPORTANT:</b>If output from <code>show config</code> differs from the example here, you must adjust the <code>slot</code> and <code>ld</code> parameters in the commands to follow. There should be two slots (numbered 2 and 0), each with two logical drives (1 and 2). Slot 0 should contain a <code>logicaldrive</code> of two physical disks: <i>it is important not to delete this logical drive.</i></p> <pre>Smart Array P420 in Slot 2 (sn: PDKRH0ARH3X0HB)    array A (SAS, Unused Space: 0 MB)      logicaldrive 1 (273.4 GB, RAID 1+0, OK)        physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 146 GB, OK)       physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 146 GB, OK)       physicaldrive 1I:1:3 (port 1I:box 1:bay 3, SAS, 146 GB, OK)       physicaldrive 1I:1:4 (port 1I:box 1:bay 4, SAS, 146 GB, OK)      array B (SAS, Unused Space: 0 MB)      logicaldrive 2 (273.4 GB, RAID 1+0, OK)        physicaldrive 2I:1:5 (port 2I:box 1:bay 5, SAS, 146 GB, OK)       physicaldrive 2I:1:6 (port 2I:box 1:bay 6, SAS, 146 GB, OK)       physicaldrive 2I:1:7 (port 2I:box 1:bay 7, SAS, 146 GB, OK)       physicaldrive 2I:1:8 (port 2I:box 1:bay 8, SAS, 146 GB, OK)    SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 500143802518449F)  Smart Array P420i in Slot 0 (Embedded) (sn: 5001438025A465B0)    array A (SAS, Unused Space: 0 MB)      logicaldrive 1 (838.3 GB, RAID 1, OK)        physicaldrive 1I:2:1 (port 1I:box 2:bay 1, SAS, 900.1 GB, OK)       physicaldrive 1I:2:2 (port 1I:box 2:bay 2, SAS, 900.1 GB, OK)      array B (SAS, Unused Space: 0 MB)      logicaldrive 2 (273.4 GB, RAID 1+0, OK)        physicaldrive 1I:2:3 (port 1I:box 2:bay 3, SAS, 146 GB, OK)       physicaldrive 1I:2:4 (port 1I:box 2:bay 4, SAS, 146 GB, OK)       physicaldrive 2I:2:5 (port 2I:box 2:bay 5, SAS, 146 GB, OK)       physicaldrive 2I:2:6 (port 2I:box 2:bay 6, SAS, 146 GB, OK)  SEP (Vendor ID PMCSIERA, Model SRCv8x6G) 380 (WWID: 5001438025A465BF)</pre> |
| <p>7.</p> <input type="checkbox"/> | <p>Delete logical drive slot 2 ld 1</p>      | <pre>#hpssacli ctrl slot=2 ld 1 delete Warning: Deleting the specified device(s) will result in data being lost. Continue? (y/n) y</pre>   |

**Appendix M.1: Removing RMS Disk Array Configuration**

| Step                                     | Procedure                                  | Result   |
|--|--|--|
| 8.<br><input type="checkbox"/>           | Delete logical drive slot 2<br><i>ld 2</i> | # <code>hpssacli ctrl slot=2 ld 2 delete</code><br>Warning: Deleting the specified device(s) will result in data being lost.<br>Continue? (y/n) <code>y</code> |
| 9.<br><input type="checkbox"/>           | Delete logical drive slot 0<br><i>ld 1</i> | # <code>hpssacli ctrl slot=0 ld 2 delete</code><br>Warning: Deleting the specified device(s) will result in data being lost.<br>Continue? (y/n) <code>y</code> |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |  |  |

**M.2 Removing Blade Disk Array Configuration (Sidecar)**

**Notice:** This section provides guidance that is only required when installing Oracle Communications User Data Repository onto hardware that has hosted prior installations. As such it is intended for lab use, and for production environments only in the case of disaster recovery.

**Appendix M.2: Removing Blade Disk Array Configuration (Sidecar)**

| Step                           | Procedure                          | Result   |
|--------------------------------|------------------------------------|--|
| 1.<br><input type="checkbox"/> | Access the server's console.       | Connect to the blade server's console using one of the access methods described in <b>Section 2.1.2.</b> |
| 2.<br><input type="checkbox"/> | Change to root user home directory | # <code>cd</code>  |

Appendix M.2: Removing Blade Disk Array Configuration (Sidecar)

| Step                                      | Procedure   | Result  |
|---|---|---|
| <p>3.</p>                                 | <p><i>Remove volume group or storage pool</i></p> | <p><b>** Execute For Low Capacity C-Class only</b></p> <pre># lvs stripe_vg LV          VG          Attr          LSize   Pool Origin Data%  Move Log Cpy%Sync Convert rundb          stripe_vg -wa-ao---- 385.01g</pre> <p>If stripe_vg is present then remove it</p> <pre># vgremove stripe_vg Do you really want to remove volume group "stripe_vg" containing 1 logical volumes? [y/n]: y Do you really want to remove active logical volume rundb? [y/n]: y</pre> <p>Volume group "stripe_vg" successfully removed</p> <pre># virsh pool-list Name                State      Autostart ----- stripePool_vg       active    yes vgguests             active    yes</pre> <p>If stripePool_vg is present then remove it with below steps</p> <pre># virsh pool-destroy stripePool_vg Pool stripePool_vg destroyed  # virsh pool-undefine stripePool_vg Pool stripePool_vg has been undefined  # vgremove stripePool_vg Volume group "stripePool_vg" successfully removed</pre> |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><i>Remove volume group</i></p>                 | <p><b>**Don't execute for Low Capacity C-Class</b></p> <pre>#vgremove stripe_vg Do you really want to remove volume group "stripe_vg" containing 1 logical volumes? [y/n]:y Do you really want to remove active logical volume rundb? [y/n]:y</pre> <p>Note: if the following output appears after the first question – “Logical volume stripe_vg/rundb contains a filesystem in use”. Execute the following steps below and repeat the command above:</p> <pre># prod.dbdown -i # service comcol stop # umount /dev/mapper/stripe_vg-rundb</pre>   |
| <p>5.</p> <p><input type="checkbox"/></p> | <p><i>Check for existing physical volumes</i></p> | <pre># pvs PV          VG          Fmt  Attr  PSize  PFree /dev/sda          lvm2  ---  820.21g 820.21g /dev/sdb2  vgroot  lvm2  a--  838.06g 827.06g</pre>   |

Appendix M.2: Removing Blade Disk Array Configuration (Sidecar)

| Step   | Procedure  | Result  |
|--|--|---|
| <p>6.</p> <input type="checkbox"/>   | <p>From Step 5, Remove physical volume that does not have vgroot</p> <p>Note: This volume can vary</p> | <p>Remove the physical volume that does not have vgroot or vgguests from step 5.</p> <pre>#pvremove /dev/sda</pre> <p>Labels on physical volume "/dev/sda" successfully wiped</p> <p><b>NOTE:</b> Systems with bare-metal NOAMPs will only have a vgroot volume, but systems with VM NOAMPs over TVOE will have a vgroot and a vgguests volume.</p>   |
| <p>7.</p> <input type="checkbox"/>   | <p>Display the Configuration</p>   | <pre># hpssacli ctrl all show config</pre>  |
| <p>8.</p> <input type="checkbox"/>   | <p>Verify output matches expected values</p>   | <p><b>IMPORTANT:</b>If output from <code>show config</code> differs from the example here, you must adjust the <code>slot</code> and <code>ld</code> parameters in the commands to follow. There should be two slots (numbered 0 and 3). Slot 0 should contain a <code>logicaldrive</code> of two physical disks: <i>it is important not to delete this logical drive.</i></p> <pre>Smart Array P220i in Slot 0(Embedded) (sn: PCQVU0CRH5V2JU)      array A (SAS, Unused Space: 0 MB)     logicaldrive 1(838.3 GB, RAID 1, OK)          physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 900.1 GB, OK)         physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 900.1 GB, OK)      SEP (Vendor ID PMCSIERA, Model SRCv4x6G) 380 (WWID: 5001438028DDB56F)  Smart Array P410i in Slot 3(sn: 5001438025905EB0)      array A (SAS, Unused Space: 0 MB)     logicaldrive 1(820.2 GB, RAID 1+0, OK)          physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 146 GB, OK)         physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 146 GB, OK)         physicaldrive 1I:1:3 (port 1I:box 1:bay 3, SAS, 146 GB, OK)         physicaldrive 1I:1:4 (port 1I:box 1:bay 4, SAS, 146 GB, OK)         physicaldrive 1I:1:5 (port 1I:box 1:bay 5, SAS, 146 GB, OK)         physicaldrive 1I:1:6 (port 1I:box 1:bay 6, SAS, 146 GB, OK)         physicaldrive 1I:1:7 (port 1I:box 1:bay 7, SAS, 146 GB, OK)         physicaldrive 1I:1:8 (port 1I:box 1:bay 8, SAS, 146 GB, OK)         physicaldrive 1I:1:9 (port 1I:box 1:bay 9, SAS, 146 GB, OK)         physicaldrive 1I:1:10 (port 1I:box 1:bay 10, SAS, 146 GB, OK)         physicaldrive 1I:1:11 (port 1I:box 1:bay 11, SAS, 146 GB, OK)         physicaldrive 1I:1:12 (port 1I:box 1:bay 12, SAS, 146 GB, OK)      Expander 250 (WWID: 50014380251F83E6, Port: 1I, Box: 1)</pre> |
| <p>9.</p> <input type="checkbox"/> | <p>Delete logical drive slot 3 ld 1</p>  | <pre>#hpssacli ctrl slot=3 ld 1 delete</pre> <p>Warning: Deleting the specified device(s) will result in data being lost.</p> <p>Continue? (y/n) <b>y</b></p>   |



Appendix M.2: Removing Blade Disk Array Configuration (Sidecar)

| Step                                     | Procedure | Result |
|--|-----------|--------|
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |           |        |

### M.3 Removing RMS Disk Array Configuration for Oracle Servers

**Notice:** This section provides guidance that is only required when installing Oracle Communications User Data Repository onto hardware that has hosted prior installations. As such it is intended for lab use, and for production environments only in the case of disaster recovery.

#### Appendix M.3: Removing RMS Disk Array Configuration for Oracle Servers

| Step                                     | Procedure  | Result  |
|--|--|---|
| 1.<br><input type="checkbox"/>           | Access the server's console.                           | Connect to the RMS server's console using one of the access methods described in Appendix A.2 Accessing the iLo VGA Redirection Window for Oracle RMS Servers or Appendix A.3 Accessing the iLo Console for Oracle RMS Servers. (switch to root)  |
| 2.<br><input type="checkbox"/>           | Change to root user home directory                     | # <code>cd</code>   |
| 3.<br><input type="checkbox"/>           | Check for presence of stripePool                       | <pre># lvs stripePool_vg LV          VG          Attr          LSize   Pool Origin Data% Move Log Cpy%Sync Convert UDRNOSunX5_pool_vg.img stripe_vg -wa-ao---- 743.00g  # virsh pool-list Name                State      Autostart ----- stripePool_vg       active     yes vgguests            active     yes</pre>  |
| 4.<br><input type="checkbox"/>           | Remove the stripePool disk array if present in step 3. | <pre># virsh pool-destroy stripePool_vg Pool stripePool_vg destroyed  # virsh pool-undefine stripePool_vg Pool stripePool_vg has been undefined  # vgremove stripePool_vg Volume group "stripePool_vg" successfully removed  # raidconfig list all -r c0r1 RAID Volumes ===== ID      Name  Device   Status   Num Disks   Level   Size (GiB) ----- c0r1    /dev/sdb  OK       4        10         743</pre> |
| 5.<br><input type="checkbox"/>           | Remove volume /dev/sdb                                 | <pre># pvremove /dev/sdb Labels on physical volume "/dev/sdb" successfully wiped  # raidconfig delete raid -r c0r1</pre>  |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |  |   |

## Appendix N. Creating an XML file for Installing Network Elements

Oracle Communications User Data Repository Network Elements can be created by using an XML configuration file. The customer is required to create individual XML files for each of their Oracle Communications User Data Repository Network Elements. The format for each of these XML files is identical.

Below is an example of the SDM\_NOAMP\_NE.xml file. The highlighted values are values that the user must update.

**NOTE:** 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.

**Table 10– Oracle Communications User Data Repository XML NOAMP Network Element Configuration File**

| XML File Text                       | Description   |
|-------------------------------------|---|
| <networkelement>                    |   |
| <name>NOAMP_NE</name>               | Unique identifier used to label a Network Element.<br>[Range = 1-32 character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.] |
| <ntpserver>                         |   |
| <ntpserver>10.250.32.10</ntpserver> | IP Address of the first NTP server. There must be at least one NTP server IP address defined.   |
| <ntpserver>10.250.32.51</ntpserver> | IP Address of second NTP server, if it exists; otherwise, this line must be deleted.  |
| </ntpserver>                        |   |
| <networks>                          |   |
| <network>                           |   |
| <name>XMI</name>                    | Name of customer external network.<br><b>Note:</b> Do NOT change this name.   |
| <vlanId>3</vlanId>                  | The VLAN ID to use for this VLAN.<br>[Range = 2-4094.]  |
| <ip>10.250.39.16</ip>               | The network address of this VLAN<br>[Range = A valid IP address]  |
| <mask>255.255.255.240</mask>        | Subnetting to apply to servers within this VLAN   |
| <gateway>10.250.39.17</gateway>     | The gateway router interface address associated with this network<br>[Range = A valid IP address]   |
| <isDefault>>true</isDefault>        | Indicates whether this is the network with a default gateway.<br>[Range = true/false]   |
| </network>                          |   |
| <network>                           |   |
| <name>IMI</name>                    | Name of customer internal network.<br><b>Note:</b> Do NOT change this name.   |
| <vlanId>4</vlanId>                  | The VLAN ID to use for this VLAN.<br>[Range = 2-4094.]  |
| <ip>169.254.2.0</ip>                | The network address of this VLAN<br>[Range = A valid IP address]  |
| <mask>255.255.255.0</mask>          | Subnetting to apply to servers within this VLAN   |
| <gateway>169.254.2.1</gateway>      | The gateway router interface address associated with this network<br>[Range = A valid IP address]   |
| <isDefault>>false</isDefault>       | Indicates whether this is the network with a default gateway.<br>[Range = true/false]   |
| </network>                          |   |
| </networks>                         |   |
| </networkelement>                   |   |

## Appendix O. Application NetBackup Client Installation Procedures

NetBackup is a utility that allows for management of backups and recovery of remote systems. The NetBackup suite is for the purpose of supporting Disaster Recovery at the customer site. The following procedures provides instructions for installing and configuring the NetBackup client software on an application server in two different ways, first using platcfg and second using nbAutoInstall (push Configuration)

Please note that at the writing of this document, the supported versions of Netbackup in Oracle Communications User Data Repository 12.4 are 7.1 and 7.5.

### O.1 NetBackup Client Installation using Platcfg

**NOTE: Execute the following procedure to switch/migrate to having netBackup installed via platcfg instead of using NBAutoInstall (Push Configuration)**

#### Prerequisites:

- Application server platform installation has been completed.
- Site survey has been performed to determine the network requirements for the application server, and interfaces have been configured.
- NetBackup server is available to copy, sftp, the appropriate NetBackup Client software to the application server.

**Note:** If a procedural STEP fails to execute successfully, STOP and contact the Customer Care Center.

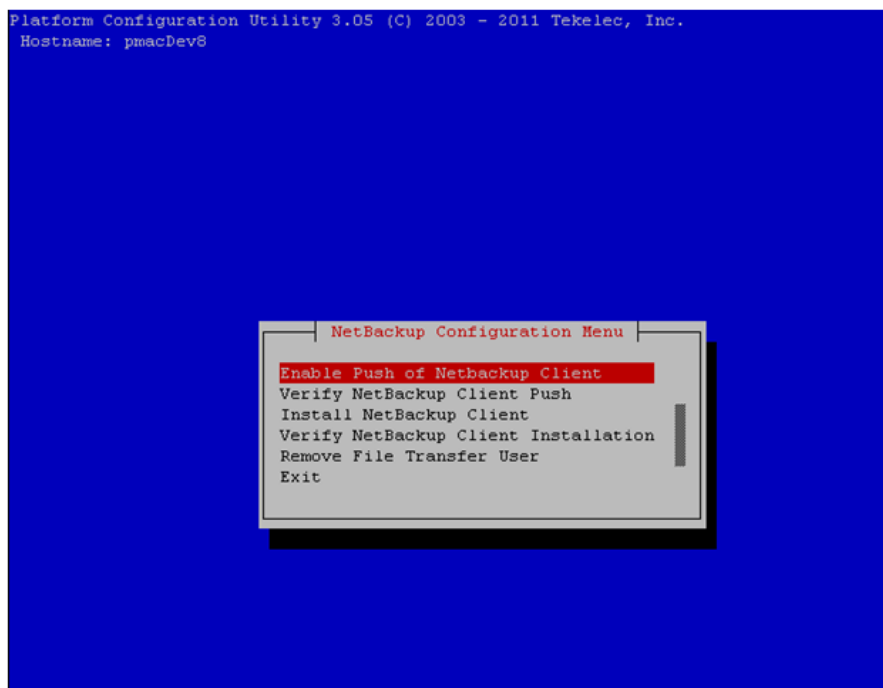
#### 1. Application server iLO: Login and launch the integrated remote console

- SSH to the application Server (PM&C or NOAMP) as root using the management network for the PM&C or XMI network for the NOAMP.

#### 2. Application server iLO: Configure NetBackup Client on application server

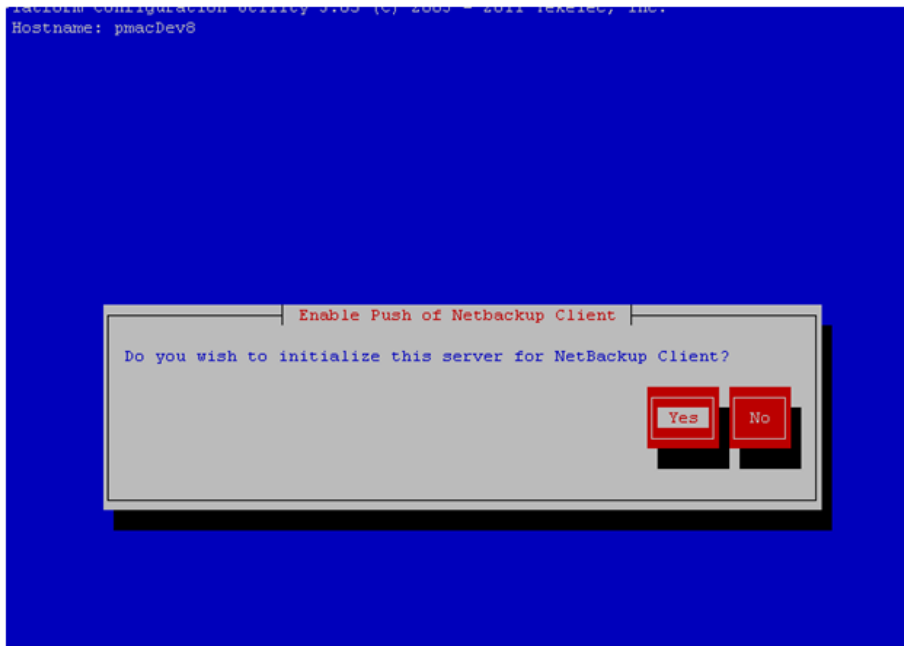
# **su - platcfg**

- Navigate to **NetBackup Configuration**



3. Application server iLO: Enable Push of NetBackup Client

- Navigate to **NetBackup Configuration > Enable Push of NetBackup Client**



- Select **Yes** to initialize the server and enable the NetBackup client software push.

4. Application server iLO: Verify NetBackup Client software push is enabled.

- Navigate to **NetBackup Configuration > Verify NetBackup Client Push**



- Verify list entries indicate **"OK"** for NetBackup client software environment.
- Select **"Exit"** to return to NetBackup Configuration menu.

### 5. NetBackup server: Push appropriate NetBackup Client software to application server

**Note:** The NetBackup server is not an application asset. Access to the NetBackup server, and location path of the NetBackup Client software is under the control of the customer. Below are the steps that are required on the NetBackup server to push the NetBackup Client software to the application server. These example steps assume the NetBackup server is executing in a Linux environment.

**Note:** The backup server is supported by the customer, and the backup utility software provider. If this procedural STEP, executed at the backup utility server, fails to execute successfully, STOP and contact the Customer Care Center of the backup and restore utility software provider that is being used at this site.

- Log in to the NetBackup server using password provided by customer:
- Navigate to the appropriate NetBackup Client software path:  
**Note:** The input below is only used as an example. (7.5 in the path below refers to the NetBackup version. If installed a different version (e.g. 7.1), replace 7.5 with 7.1)

```
# cd /usr/opensv/netbackup/client/Linux/7.5
```

- Execute the sftp\_to client NetBackup utility using the application IP address and application net backup user;  

```
# ./sftp_to_client <application IP> netbackup
```

```
Connecting to 192.168.176.31
```

```
netbackup@192.168.176.31's password:
```
- Enter application server netbackup user password; the following NetBackup software output is expected, observe the sftp completed successfully:  

```
File "/usr/opensv/netbackup/client/Linux/6.5/.sizes" not found.
```

```
Couldn't rename file "/tmp/bp.6211/sizes" to "/tmp/bp.6211/.sizes": No such file or directory
```

```
File "/usr/opensv/NB-Java.tar.Z" not found.
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
./sftp_to_client: line 793: [: : integer expression expected
```

```
sftp completed successfully.
```

```
The root user on 192.168.176.31 must now execute the command "sh /tmp/bp.6211/client_config [-L]". The optional
```

```
argument, "-L",
```

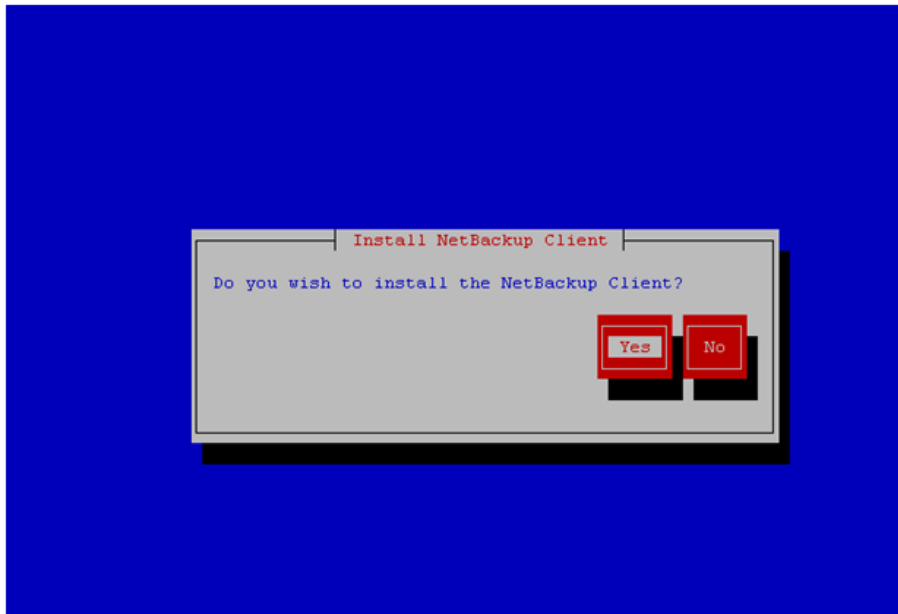
```
is used to avoid modification of the client's current bp.conf file.
```

```
#
```

**Note: Although the command executed above instructs you to execute the client\_config command, DO NOT execute that command, as it shall be executed by platcfg in the next step.**

### 6. Application server iLO: Install NetBackup Client software on application server.

- Navigate to **NetBackup Configuration > Install NetBackup Client**



- Verify list entries indicate "OK" for NetBackup client software installation
- Select "Exit" to return to NetBackup Configuration menu

**7. Application server iLO:** Verify NetBackup Client software installation on the application server.

- Navigate to **NetBackup Configuration > Verify NetBackup Client Installation.**



- Verify list entries indicate "OK" for NetBackup Client software installation.
- Select "Exit" to return to NetBackup Configuration menu.

**8. Application server iLO:** Disable NetBackup Client software transfer to the application server.

- Navigate to **NetBackup Configuration > Remove File Transfer User**



- Select "Yes" to remove the NetBackup file transfer user from the application server

**9. Application server iLO:** Exit platform configuration utility (platcfg)

**10. Application server iLO:** Use platform configuration utility (platcfg) to modify hosts file with NetBackup server alias.

**Note:** After the successful transfer and installation of the NetBackup client software the NetBackup servers hostname can be found in the NetBackup "/usr/openv/netbackup/bp.conf" file, identified by the "SERVER" configuration parameter. The NetBackup server hostname and IP address must be added to the application server's hosts file.

- List NetBackup servers hostname:  

```
# cat /usr/openv/netbackup/bp.conf  
SERVER = nb70server  
CLIENT_NAME = pmacDev8
```

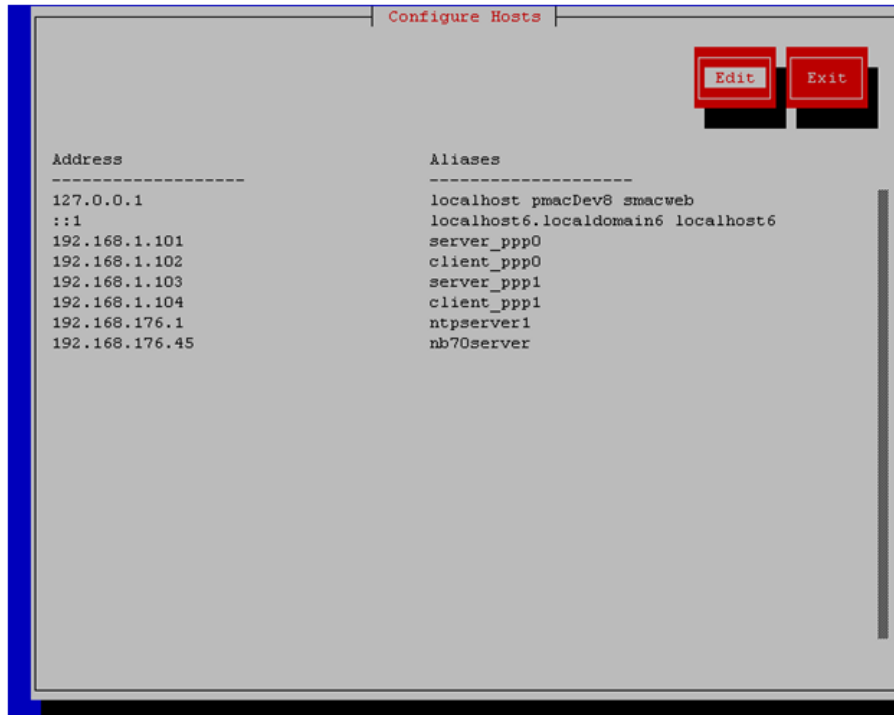
- Use platform configuration utility (platcfg) to update application hosts file with NetBackup Server alias.  

```
# su - platcfg
```

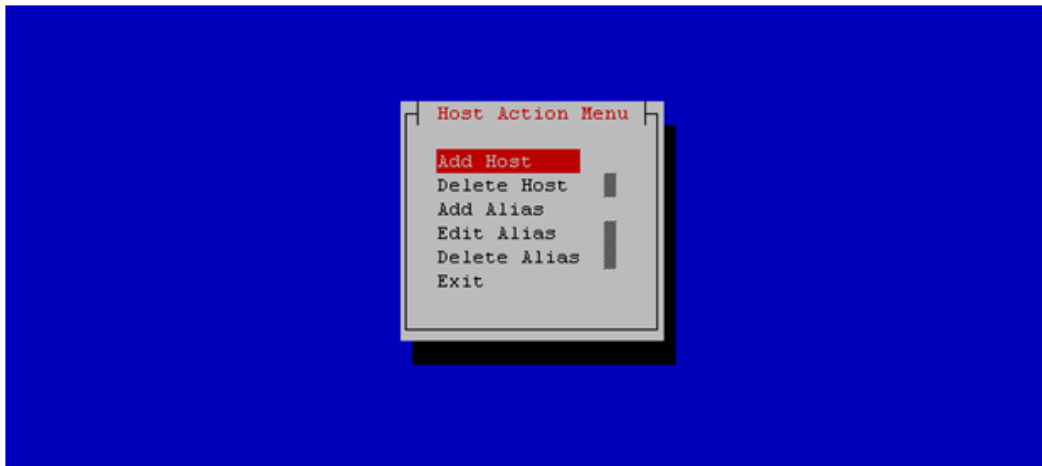
- Navigate to **Network Configuration > Modify Hosts File**



## Oracle Communications User Data Repository Installation and Configuration Guide



- Select **Edit**, the Host Action Menu will be displayed.



- Select "Add Host", and enter the appropriate data



- Select "OK", confirm the host alias add, and exit Platform Configuration Utility

**11. Application server iLO:** Create links to NetBackup client notify scripts on application server where NetBackup expects to find them.

**Note:** Copy notify scripts from appropriate path on application server for given application.

```
# ln -s <path>/bpstart_notify /usr/opensv/netbackup/bin/bpstart_notify
# ln -s <path>/bpend_notify /usr/opensv/netbackup/bin/bpend_notify
```

An example of <path> is /usr/TKLC/plat/sbin

**12. Application server iLO:** NetBackup Client software installation complete.

## O.2 NetBackup Client Installation & Upgrade with AutoInstall

**NOTE:** Execute the following procedure to switch/migrate to having netBackup installed via NBAutoInstall (Push Configuration) instead of manual installation using platcfg.

Executing this procedure will enable TPD to automatically detect when a Netbackup Client is installed and then complete TPD related tasks that are needed for effective Netbackup Client operation. With this procedure, the Netbackup Client install (pushing the client and performing the install) is the responsibility of the customer and is not covered in this procedure.

**Note:** If the customer does not have a way to push and install Netbackup Client, then use *NetbackupClient Install/Upgrade with platcfg*.

**Note:** It is required that this procedure is executed before the customer does the Netbackup Client install.

### Prerequisites:

- Application server platform installation has been completed.
- Site survey has been performed to determine the network requirements for the application server, and interfaces have been configured.
- NetBackup server is available to copy, sftp, the appropriate NetBackup Client software to the application server.

**1. Application server iLO:** Login and launch the integrated remote console

- SSH to the application Server (PM&C or NOAMP) as root using the management network for the PM&C or XMI network for the NOAMP.

### 2. Application server iLO: Enable nbAutoInstall

```
# /usr/TKLC/plat/bin/nbAutoInstall --enable
```

**3. Application server iLO:** Create links to NetBackup client notify scripts on application server where NetBackup expects to find them.

```
# mkdir -p /usr/opensv/netbackup/bin/  
# ln -s <path>/bpstart_notify /usr/opensv/netbackup/bin/bpstart_notify  
# ln -s <path>/bpend_notify /usr/opensv/netbackup/bin/bpend_notify
```

An example of <path> is `/usr/TKLC/plat/sbin`

### 4. Application server iLO: Verify NetBackup configuration file

- Open `/usr/opensv/netbackup/bp.conf` and make sure it points to the NetBackup Server using the following command:

```
# vi /usr/opensv/netbackup/bp.conf
```

Verify that the highlighted Server name matches the NetBackup Server, and verify that the CLIENT\_NAME matches the hostname or IP of the local client machine, if they do not, update them as necessary.

```
SERVER = nb75server  
CLIENT_NAME = 10.250.10.185  
CONNECT_OPTIONS = localhost 1 0 2
```

- Edit `/etc/hosts` using the following command and add the NetBackup server

```
# vi /etc/hosts
```

```
e.g.: 192.168.176.45      nb75server
```

The server will now periodically check to see if a new version of Netbackup Client has been installed and will perform necessary TPD configuration accordingly.

At any time, the customer may now push and install a new version of Netbackup Client.

## Appendix P. List of Frequently Used Time Zones

This table lists several valid time zone 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 time zone. For an exhaustive list of **ALL** time zones, log onto the PM&C server console and view the text file: </usr/share/zoneinfo/zone.tab>

**Table 11- List of Selected Time Zone Values**

| Time Zone Value            | Description                      | Universal Time Code (UTC) Offset |
|----------------------------|----------------------------------|----------------------------------|
| <i>Etc/UTC</i>             | GMT                              | 0                                |
| <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                           |

## Oracle Communications User Data Repository Installation and Configuration Guide

|                          |   |        |
|--------------------------|---|--------|
| <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 |

## Oracle Communications User Data Repository Installation and Configuration Guide

|                            |                                  |        |
|----------------------------|----------------------------------|--------|
| <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 Q. Add additional MPs to Low Capacity Oracle RMS after upgrade


From Oracle Communications User Data Repository 12.4 release, Oracle RMS supports 2 MP Virtual Machines in Low Capacity configuration. The 10.2 release supports only one MP Virtual Machine. This procedure documents how to add the additional MP Virtual Machine, install the TPD Operating System and Oracle Communications User Data Repository application on the VM Guests after the upgrade from 10.2 Release.. This procedure can only be used only when customer upgrades an Oracle Communications User Data Repository installed on Oracle RMS from 10.2 Release to 12.4 Release.

**Requirements:**

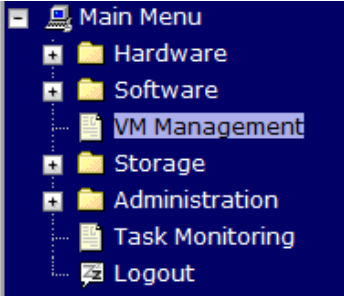
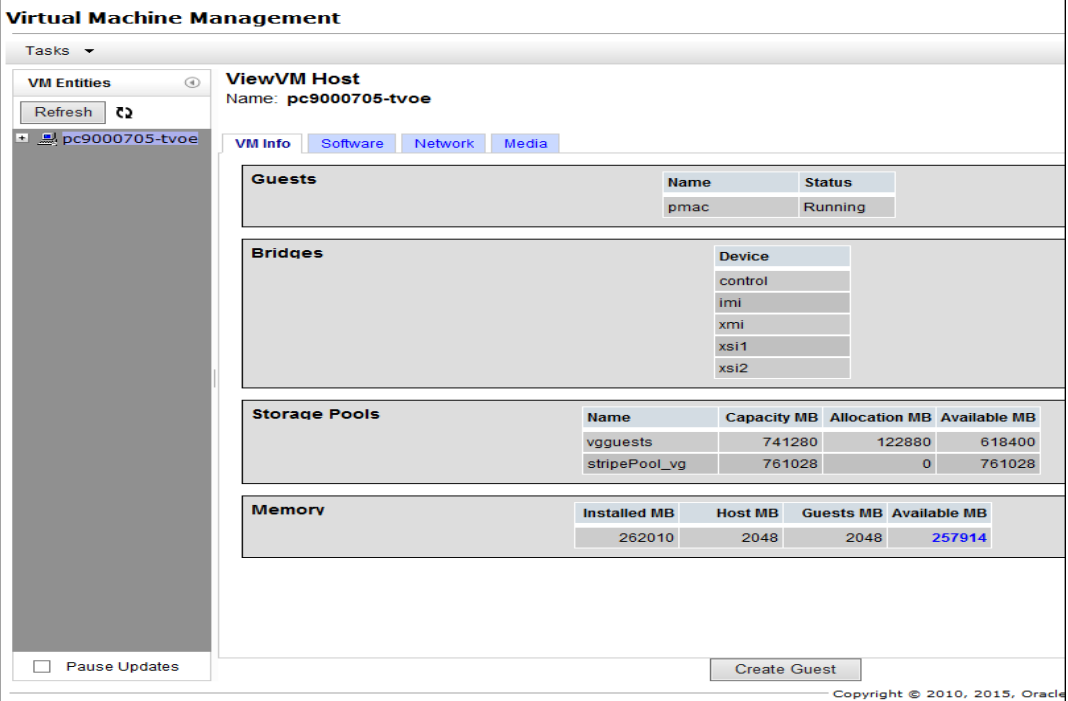
- All Network Elements have been upgraded to 12.4 version
- vCPU num for NO SO and MP have been modified according to 12.4 requirement
- Disk usage for NO, SO and MP have been modified according to 12.4 requirement

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**Appendix Q:** Add additional MPs to Low Capacity Oracle RMS after upgrade

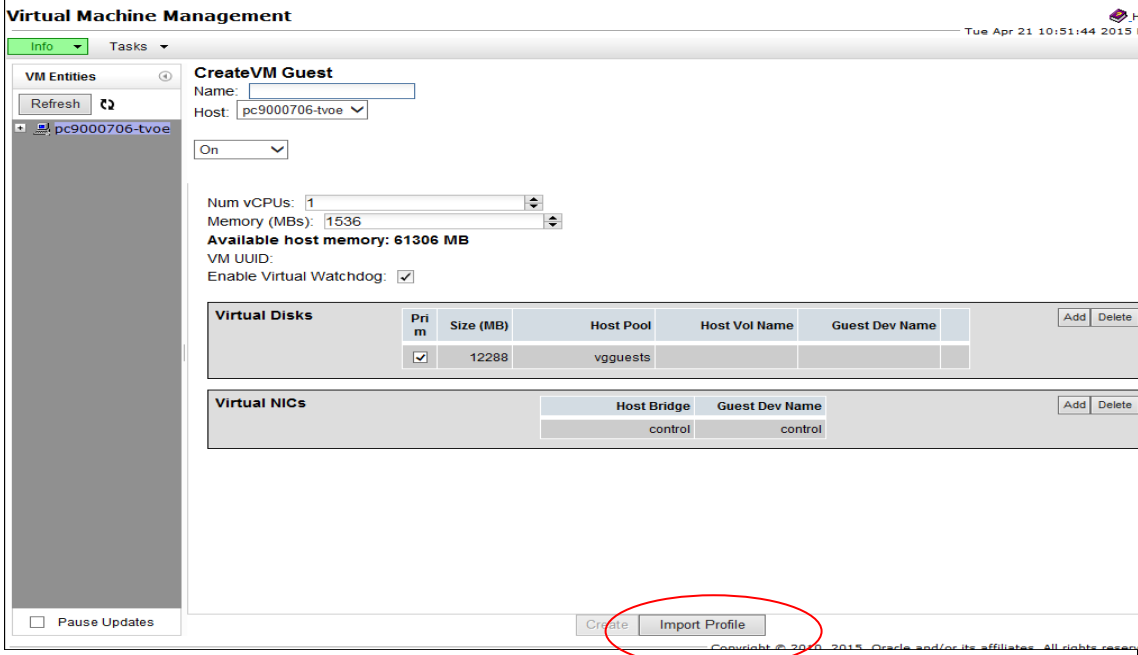
| Step                           | Procedure                                 | Result   |
|--------------------------------|---|--|
| 1.<br><input type="checkbox"/> | Add image to manage - ment server.        | Follow <b>Appendix J Adding Software Images to PM&amp;C Server</b> to add <b>TPD</b> and <b>Oracle Communications User Data Repository</b> software images to this PM&C repository.  |
| 2.<br><input type="checkbox"/> | <b>PM&amp;C GUI:</b><br>Login to PM&C GUI | Open web browser and enter: <a href="http://&lt;pmac_management_network_ip&gt;">http://&lt;pmac_management_network_ip&gt;</a><br>Login as guiadmin user. <div style="text-align: center;">  </div> |

Appendix Q: Add additional MPs to Low Capacity Oracle RMS after upgrade

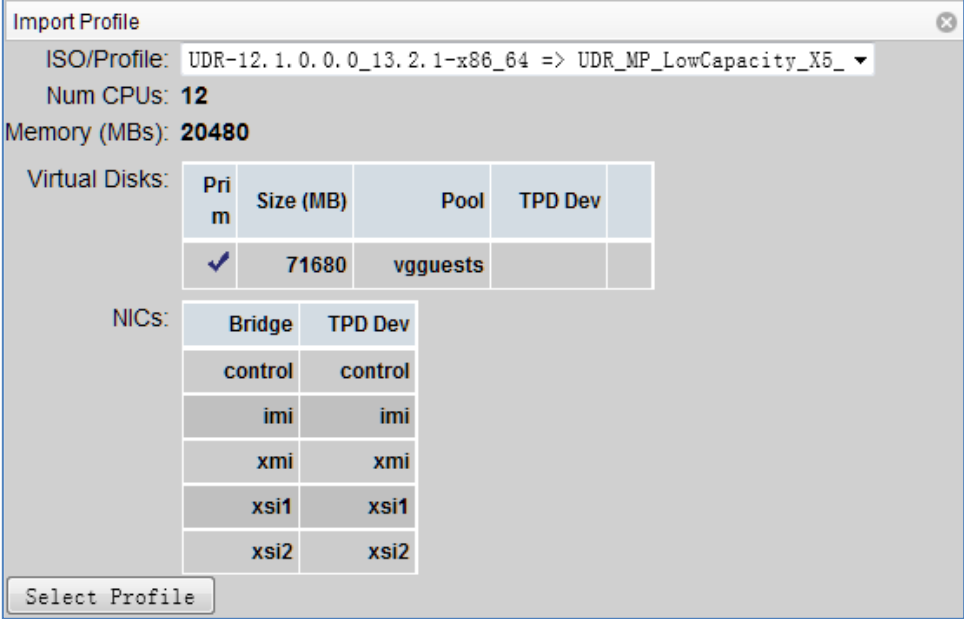
| Step                                      | Procedure   | Result   |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|---|---|--|---------------|--------------|--------|--|------|---------|---------|--------|--|---------|--|-----|--|-----|--|------|--|------|---------------|------|-------------|---------------|--------------|--|----------|--------|--------|--------|--|---------------|--------|---|--------|--------|--------------|---------|-----------|--------------|--|--------|------|------|--------|
| <p>3.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>Navigate to the <b>VM Management</b> menu</p> <p><i>Navigate to VM Management menu</i></p>   |  <p>The screenshot shows a dark blue sidebar menu with the following items: Main Menu, Hardware, Software, VM Management (highlighted), Storage, Administration, Task Monitoring, and Logout.</p>   |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>Select the desired server from the “VM Entities” listing on the left side of the screen. The selected server’s guest machine configuration will then be displayed in the remaining area of the window.</p> <p><i>Select the desired Server and create the VM Guest</i></p> |  <p>The screenshot shows the 'Virtual Machine Management' interface. On the left, under 'VM Entities', the server 'pc9000705-tvoe' is selected. The main area displays 'ViewVM Host' for 'pc9000705-tvoe' with tabs for VM Info, Software, Network, and Media. The 'VM Info' tab is active, showing a table of guests, bridges, storage pools, and memory.</p> <table border="1"> <thead> <tr> <th>Guests</th> <th>Name</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td></td> <td>pmac</td> <td>Running</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Bridges</th> <th>Device</th> </tr> </thead> <tbody> <tr> <td></td> <td>control</td> </tr> <tr> <td></td> <td>imi</td> </tr> <tr> <td></td> <td>xmi</td> </tr> <tr> <td></td> <td>xsi1</td> </tr> <tr> <td></td> <td>xsi2</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Storage Pools</th> <th>Name</th> <th>Capacity MB</th> <th>Allocation MB</th> <th>Available MB</th> </tr> </thead> <tbody> <tr> <td></td> <td>vggcasts</td> <td>741280</td> <td>122880</td> <td>618400</td> </tr> <tr> <td></td> <td>stripePool_vg</td> <td>761028</td> <td>0</td> <td>761028</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Memory</th> <th>Installed MB</th> <th>Host MB</th> <th>Guests MB</th> <th>Available MB</th> </tr> </thead> <tbody> <tr> <td></td> <td>262010</td> <td>2048</td> <td>2048</td> <td>257914</td> </tr> </tbody> </table> <p>At the bottom right of the interface is a 'Create Guest' button. Copyright © 2010, 2015, Oracle is visible at the bottom right.</p> <p>Click Create Guest.</p> <ul style="list-style-type: none"> <li>• Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p> | Guests        | Name         | Status |  | pmac | Running | Bridges | Device |  | control |  | imi |  | xmi |  | xsi1 |  | xsi2 | Storage Pools | Name | Capacity MB | Allocation MB | Available MB |  | vggcasts | 741280 | 122880 | 618400 |  | stripePool_vg | 761028 | 0 | 761028 | Memory | Installed MB | Host MB | Guests MB | Available MB |  | 262010 | 2048 | 2048 | 257914 |
| Guests                                    | Name  | Status   |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | pmac  | Running  |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
| Bridges                                   | Device  |  |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | control   |  |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | imi   |  |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | xmi   |  |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | xsi1  |  |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | xsi2  |  |               |              |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
| Storage Pools                             | Name  | Capacity MB  | Allocation MB | Available MB |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | vggcasts  | 741280   | 122880        | 618400       |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | stripePool_vg   | 761028   | 0             | 761028       |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
| Memory                                    | Installed MB  | Host MB  | Guests MB     | Available MB |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |
|   | 262010  | 2048   | 2048          | 257914       |        |  |      |         |         |        |  |         |  |     |  |     |  |      |  |      |               |      |             |               |              |  |          |        |        |        |  |               |        |   |        |        |              |         |           |              |  |        |      |      |        |



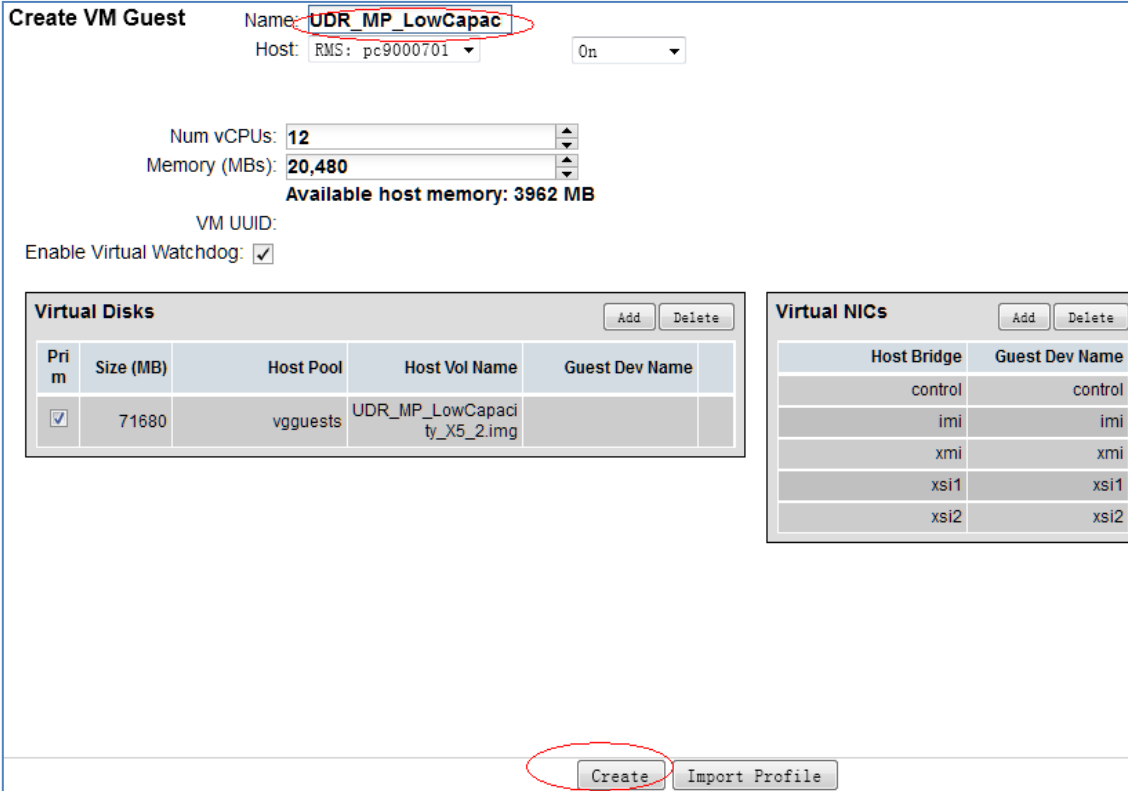
Appendix Q: Add additional MPs to Low Capacity Oracle RMS after upgrade

| Step   | Procedure  | Result  |
|--|--|---|
| <p>5.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 20px;"></div> | <p><b>PM&amp;C GUI:</b></p> <p>Click on the Import Profile dialogue button</p> | <p>A “Create VM Guest” window is displayed that is similar to the below.:</p>  <p>Click “Import Profile” button .</p> <ul style="list-style-type: none"> <li>• Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p> |

**Appendix Q:** Add additional MPs to Low Capacity Oracle RMS after upgrade

| Step                                      | Procedure  | Result   |
|---|--|--|
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p><b>Select the desired ISO/Profile value</b></p> | <p>Select the desired ISO/Profile.</p> <p>In this step, use the “UDR_MP_LowCapacity_X5_2” profile</p>  <p>Click “Select Profile” button.</p> <ul style="list-style-type: none"> <li>• Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p> |

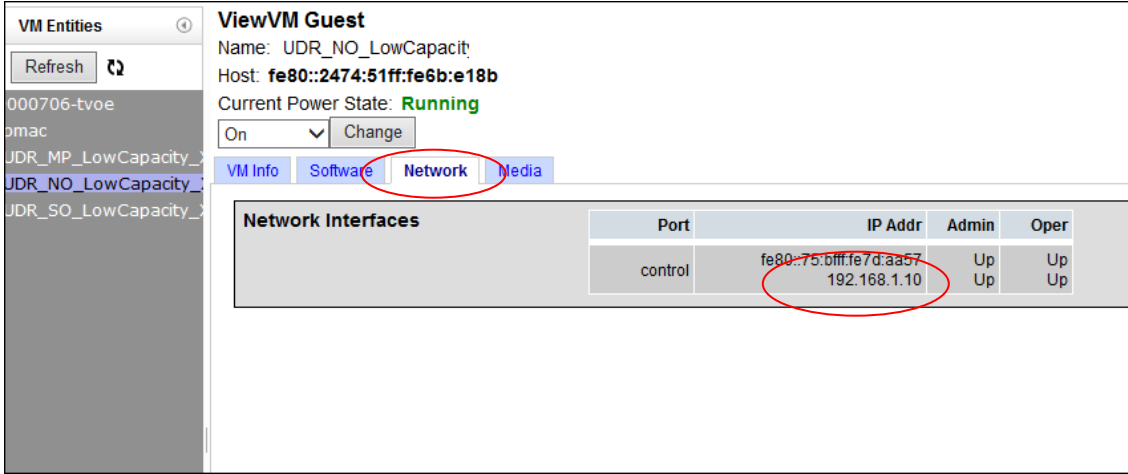
Appendix Q: Add additional MPs to Low Capacity Oracle RMS after upgrade

| Step                                      | Procedure  | Result   |  |          |              |                     |       |              |            |      |    |                    |   |  |          |         |                     |      |
|---|--|--|--|----------|--------------|---------------------|-------|--------------|------------|------|----|--------------------|---|--|----------|---------|---------------------|------|
| <p>7.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p><b>Override the VM Guest Name to make it unique for the site</b></p>                        | <p>A “Create VM Guest” window is displayed that is similar to the below:</p>  <p>Override the Name field to something like: MP3 or MP4, etc. (Don’t use hyphens in the name) You could also include a location within the Name value such as MPMRSVNCA. (This will not become the ultimate hostname. It is just an internal tag for the VM host manager.)</p> <p>Click Create button</p> <ul style="list-style-type: none"> <li>Record the Site VM Guest Name of each VM that is added in the space provided below:</li> <li>Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p>  |  |          |              |                     |       |              |            |      |    |                    |   |  |          |         |                     |      |
| <p>8.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→Task Monitoring</p> <p>...as shown on the right.</p> | <p><b>Background Task Monitoring</b></p> <p style="text-align: right;">Tue Apr 21 11:09:51</p> <p>Filter ▾</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Running Time</th> <th>Start Time</th> <th>Prog</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>VirtAction: Create</td> <td>Host IP: ...:51ff:fe6b:e18b<br/>Guest:<br/><a href="#">UDR_MP_LowCapacity_X52</a></td> <td>Guest creation completed<br/>(UDR_MP_LowCapacity_X52)</td> <td>COMPLETE</td> <td>0:00:08</td> <td>2015-04-21 11:09:51</td> <td>100%</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Check-off the associated <b>Check Box</b> as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p> | ID   | Task     | Target       | Status              | State | Running Time | Start Time | Prog | 10 | VirtAction: Create | Host IP: ...:51ff:fe6b:e18b<br>Guest:<br><a href="#">UDR_MP_LowCapacity_X52</a> | Guest creation completed<br>(UDR_MP_LowCapacity_X52) | COMPLETE | 0:00:08 | 2015-04-21 11:09:51 | 100% |
| ID  | Task   | Target   | Status   | State    | Running Time | Start Time          | Prog  |              |            |      |    |                    |   |  |          |         |                     |      |
| 10  | VirtAction: Create   | Host IP: ...:51ff:fe6b:e18b<br>Guest:<br><a href="#">UDR_MP_LowCapacity_X52</a>  | Guest creation completed<br>(UDR_MP_LowCapacity_X52) | COMPLETE | 0:00:08      | 2015-04-21 11:09:51 | 100%  |              |            |      |    |                    |   |  |          |         |                     |      |

**Appendix Q:** Add additional MPs to Low Capacity Oracle RMS after upgrade

| Step   | Procedure   | Result  |   |          |              |                     |       |              |            |      |   |                    |   |   |          |         |                     |    |
|--|---|---|---|----------|--------------|---------------------|-------|--------------|------------|------|---|--------------------|---|---|----------|---------|---------------------|----|
| <p>9.</p> <input type="checkbox"/>   | <p><b>PM&amp;C GUI:</b></p> <p><i>Verify that Create VM task successfully completes.</i></p> <p>The user should see a screen similar to the one on the right with <b>Progress</b> value of <b>100%</b>.</p> | <p>Verify that the Virtual Machine successfully created.</p> <div style="border: 1px solid black; padding: 5px;"> <p><b>Background Task Monitoring</b> <span style="float: right;">Tue Apr 21 1</span></p> <p>Filter <input type="text"/></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Running Time</th> <th>Start Time</th> <th>Prog</th> </tr> </thead> <tbody> <tr> <td>7</td> <td>VirtAction: Create</td> <td>Host IP: ...:51ff:fe6b:e18b<br/>Guest:<br/><a href="#">UDR_NO_LowCapacity_X52</a></td> <td>Guest creation completed (UDR_NO_LowCapacity_X52)</td> <td>COMPLETE</td> <td>0:00:10</td> <td>2015-04-21 10:49:53</td> <td>10</td> </tr> </tbody> </table> </div> <ul style="list-style-type: none"> <li>Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b>.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p> | ID  | Task     | Target       | Status              | State | Running Time | Start Time | Prog | 7 | VirtAction: Create | Host IP: ...:51ff:fe6b:e18b<br>Guest:<br><a href="#">UDR_NO_LowCapacity_X52</a> | Guest creation completed (UDR_NO_LowCapacity_X52) | COMPLETE | 0:00:10 | 2015-04-21 10:49:53 | 10 |
| ID   | Task  | Target  | Status  | State    | Running Time | Start Time          | Prog  |              |            |      |   |                    |   |   |          |         |                     |    |
| 7  | VirtAction: Create  | Host IP: ...:51ff:fe6b:e18b<br>Guest:<br><a href="#">UDR_NO_LowCapacity_X52</a>   | Guest creation completed (UDR_NO_LowCapacity_X52) | COMPLETE | 0:00:10      | 2015-04-21 10:49:53 | 10    |              |            |      |   |                    |   |   |          |         |                     |    |
| <p><b>Note:</b> Steps 4 -9 may be completed for each VM Guest that this PM&amp;C administers before proceeding on to the next step. This way you may install and upgrade multiple VM Guests in parallel.</p> |   |   |   |          |              |                     |       |              |            |      |   |                    |   |   |          |         |                     |    |
| <p>10.</p> <input type="checkbox"/>  | <p><i>Install Operating System (TPD)</i></p>  | <p>Follow steps defined in ...</p> <p><b>Appendix F.2</b></p> <p>Installing Operating Systems with PM&amp;C</p> <p>... to install TPD software on VM Guests.</p> <ul style="list-style-type: none"> <li>Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b>.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p>   |   |          |              |                     |       |              |            |      |   |                    |   |   |          |         |                     |    |

**Appendix Q:** Add additional MPs to Low Capacity Oracle RMS after upgrade

| Step                                | Procedure  | Result  |
|-------------------------------------|--|---|
| <p>11.</p> <input type="checkbox"/> | <p><i>PM&amp;C GUI:</i></p> <p>Get and record control IP address of VM Guest</p> | <p>Navigate to the VM Management menu</p> <p>Select the VM Guest Name from the VM Entities list, and click “Network” tab</p>  <p>Determine control IP address of VM Guest and record it.</p> <ul style="list-style-type: none"> <li>Record the Site control IP Address of each VM that is added in the space provided below:</li> <li>Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p> |
| <p>12.</p> <input type="checkbox"/> | <p><i>Install application software.</i></p>                                      | <p>Follow steps defined in ...</p> <p>Appendix G.2</p> <p>Installing Oracle Communications User Data Repository Application with PM&amp;C</p> <p>... to install Oracle Communications User Data Repository software.</p> <ul style="list-style-type: none"> <li>Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>TVOE Host-A(MP-3) <input type="checkbox"/>TVOE Host-B(MP-4)</p>   |
| <p>13.</p> <input type="checkbox"/> | <p><b>Repeat Steps</b></p>   | <p>Error! Reference source not found.4– 12 for each Virtual Machine to install its operating system and application software.</p>   |

**Appendix Q:** Add additional MPs to Low Capacity Oracle RMS after upgrade

| Step                                     | Procedure  | Result  |
|--|--|---|
| <p>14.</p> <input type="checkbox"/>      | <p><i>Perform upgrade acceptance.</i></p>                              | <p>Follow steps defined in ...</p> <p><b>Appendix H:</b> Accept Application Installation on PM&amp;C Managed Servers</p> <p>... to accept upgrade.</p> <ul style="list-style-type: none"> <li>• Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>TVOE Host-A (MP-3)<input type="checkbox"/>TVOE Host-B(MP-4)</p> |
| <p>15.</p> <input type="checkbox"/>      | <p><i>Create Configuration for newly added Servers(All Sites).</i></p> | <p>Follow steps 9 through 28 defined in ...</p> <p>8.2 Create Configuration for Remaining Servers (All Sites).</p> <p>... to create server configuration for newly added MPs</p> <p>Note: Only do step #9 to step #28 for newly added MPs</p>   |
| <p>16.</p> <input type="checkbox"/>      | <p><i>Configuring MP Server Group</i></p>                              | <p>Follow steps 14 through 23 defined in ...</p> <p>8.6 Configuring MP Server Groups (All SOAM sites)</p> <p>... to create server group configuration for newly added MPs.</p> <p>Note: Only do step #13 to step #23 for newly added MPs</p>  |
| <p>17.</p> <input type="checkbox"/>      | <p><i>Configuring MP Signaling Interfaces(All SOAM Sites)</i></p>      | <p>Follow steps defined in ...</p> <p>8.7</p> <p>Configure MP Signaling Interfaces (All SOAM Sites)</p> <p>... to configure signaling interfaces for newly added MPs.</p>   |
| <p>18.</p> <input type="checkbox"/>      | <p><i>Configuring SPR Application on MP(All SOAM Sites)</i></p>        | <p>Follow steps defined in ...</p> <p>8.8 Configure SPR Application on MP (All SOAM Sites)</p> <p>... to configure SPR Application on newly added MPs.</p>  |
| <p>THIS PROCEDURE HAS BEEN COMPLETED</p> |  |   |

## Appendix R. Adding additional MPs to Gen9 Normal Capacity Config after upgrade

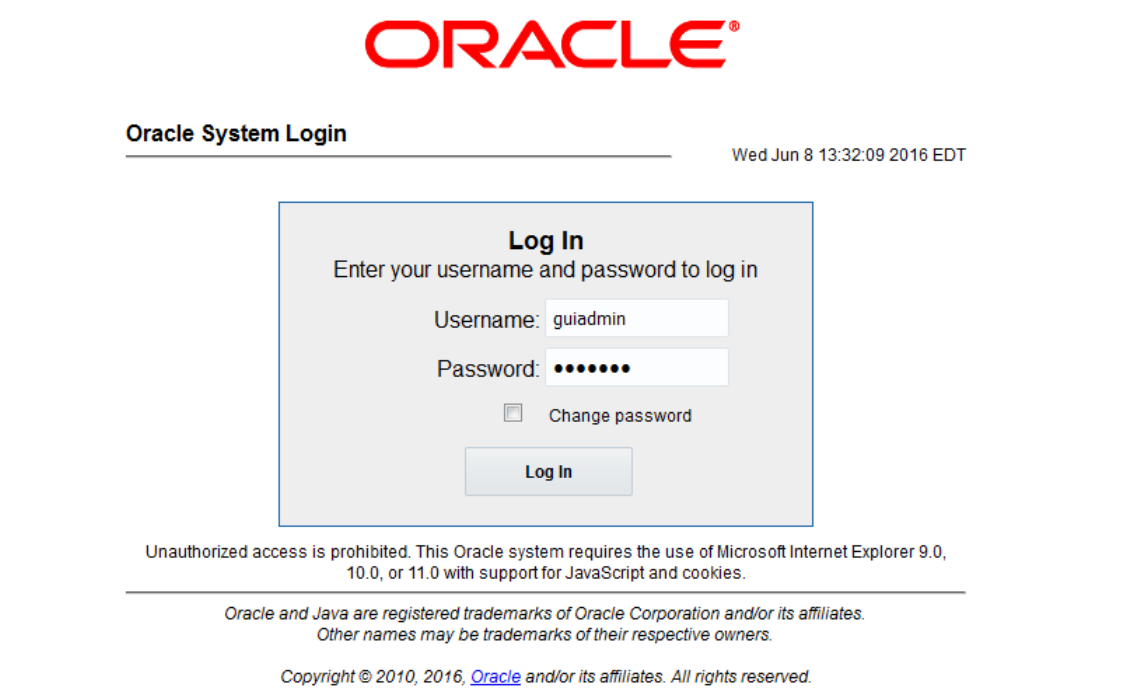
This procedure will create Virtual Machine (VM) Guests for the additional MP servers, install the TPD Operating System and Oracle Communications User Data Repository application on the VM Guests. This step can only be used when upgrading Gen 9 Normal Capacity Configuration to 12.x release in which 2 additional MPs are required (3 MPs for each SOAM).

**Requirements:**

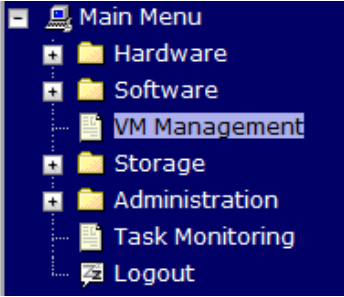
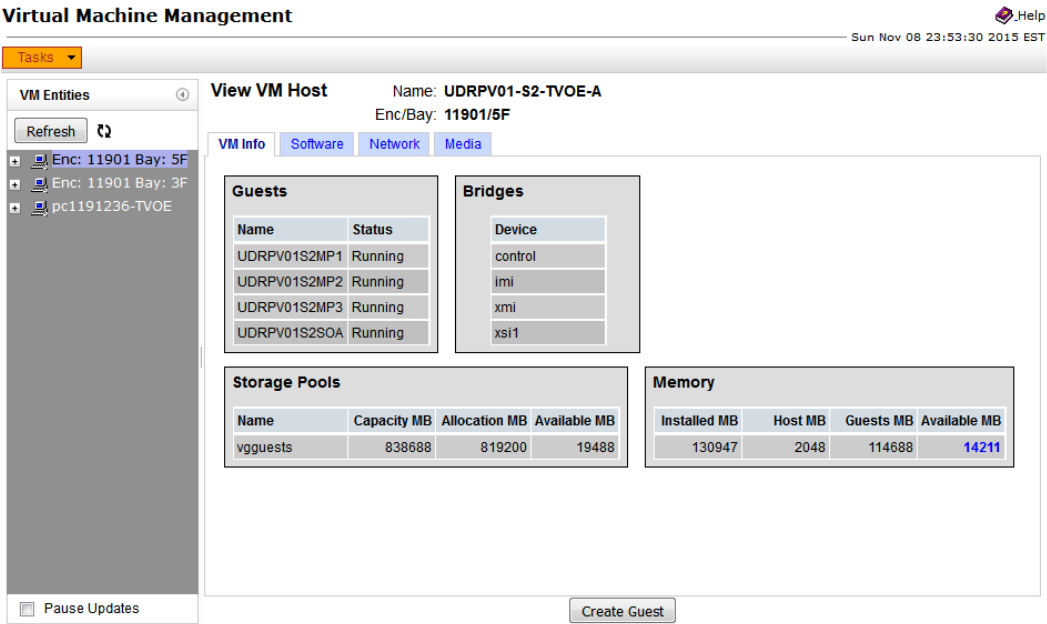
- All Network Elements have been upgraded to 12.4 version
- vCPU num and RAM allocation for each existing MP have been modified according to 12.4 requirement (Each MP should have vCPU num = “14” and RAM = “32768 MB”)

Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**Appendix R: Add additional MPs to Gen9 Normal Capacity Configuration after upgrade**

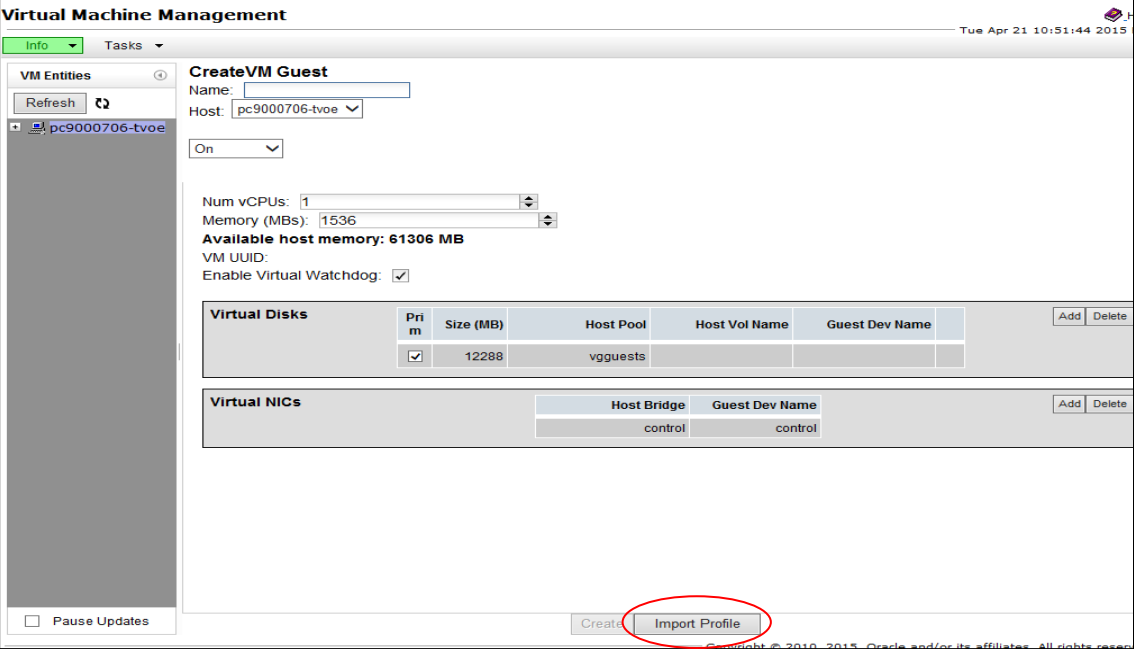
| Step                           | Procedure                                     | Result  |
|--------------------------------|---|---|
| 1.<br><input type="checkbox"/> | Add image to manage - ment server.            | Follow <b>Appendix J : Adding Software Images to PM&amp;C Server</b> to add <b>TPD and Oracle Communications User Data Repository</b> software images to this PM&C repository.  |
| 2.<br><input type="checkbox"/> | <b>PM&amp;C GUI:</b><br><br>Login to PM&C GUI | Open web browser and enter: <a href="http://&lt;pmac_management_network_ip&gt;">http://&lt;pmac_management_network_ip&gt;</a><br>Login as guiadmin user. <div style="text-align: center;">  </div> |

Appendix R: Add additional MPs to Gen9 Normal Capacity Configuration after upgrade

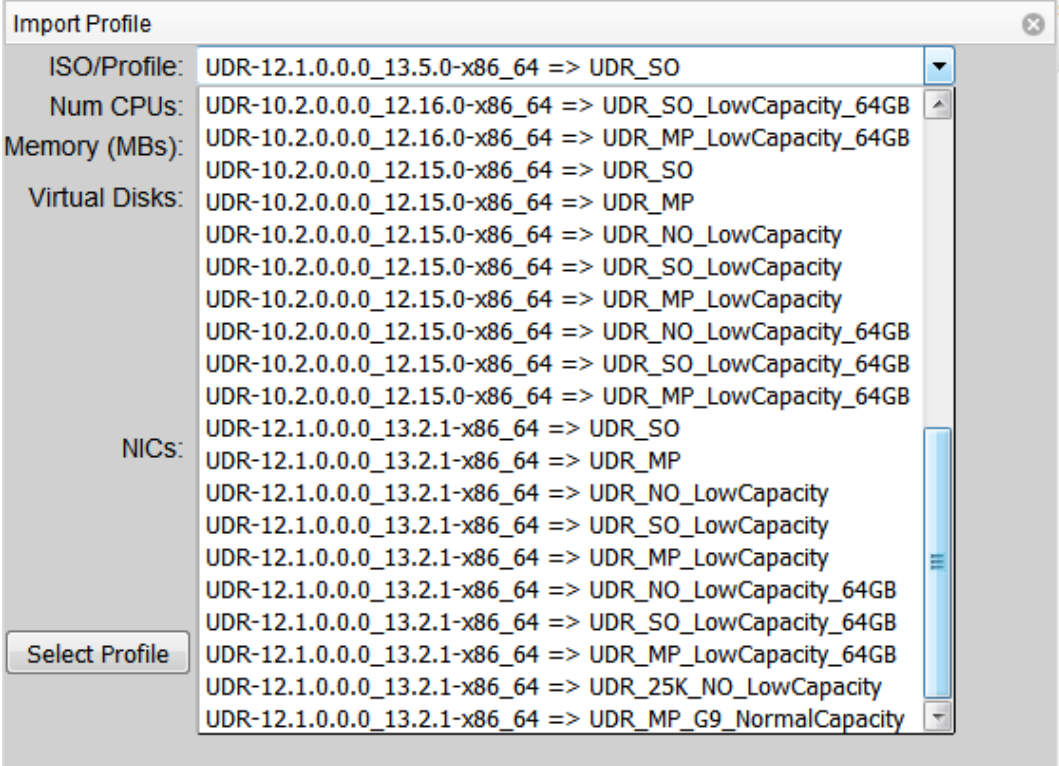
| Step                                      | Procedure   | Result   |
|---|---|--|
| <p>3.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>Navigate to the <b>VM Management</b> menu</p> <p><i>Navigate to VM Management menu</i></p>   |  <p>The screenshot shows a dark blue 'Main Menu' with several options: Hardware, Software, VM Management (highlighted with a blue selection bar), Storage, Administration, Task Monitoring, and Logout.</p>   |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>Select the desired server from the “VM Entities” listing on the left side of the screen. The selected server’s guest machine configuration will then be displayed in the remaining area of the window.</p> <p><i>Select the desired Server and create the VM Guest</i></p> |  <p>The screenshot shows the 'Virtual Machine Management' interface. On the left, under 'VM Entities', three servers are listed: 'Enc: 11901 Bay: 5F', 'Enc: 11901 Bay: 3F', and 'pc1191236-TV0E'. The 'View VM Host' section for 'UDRPV01-S2-TV0E-A' is active, showing details for Enc/Bay: 11901/5F. It includes tabs for VM Info, Software, Network, and Media. The 'Guests' table lists four running VMs: UDRPV01S2MP1, UDRPV01S2MP2, UDRPV01S2MP3, and UDRPV01S2SOA. The 'Bridges' table lists control, imi, xmi, and xsi1. The 'Storage Pools' table shows 'vgguests' with 838688 MB capacity and 19488 MB available. The 'Memory' table shows 130947 MB installed and 14211 MB available for guests. A 'Create Guest' button is visible at the bottom right.</p> <p>Click Create Guest.</p> <ul style="list-style-type: none"> <li>• Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/> MP-5</p> <p><input type="checkbox"/> MP-6</p> |



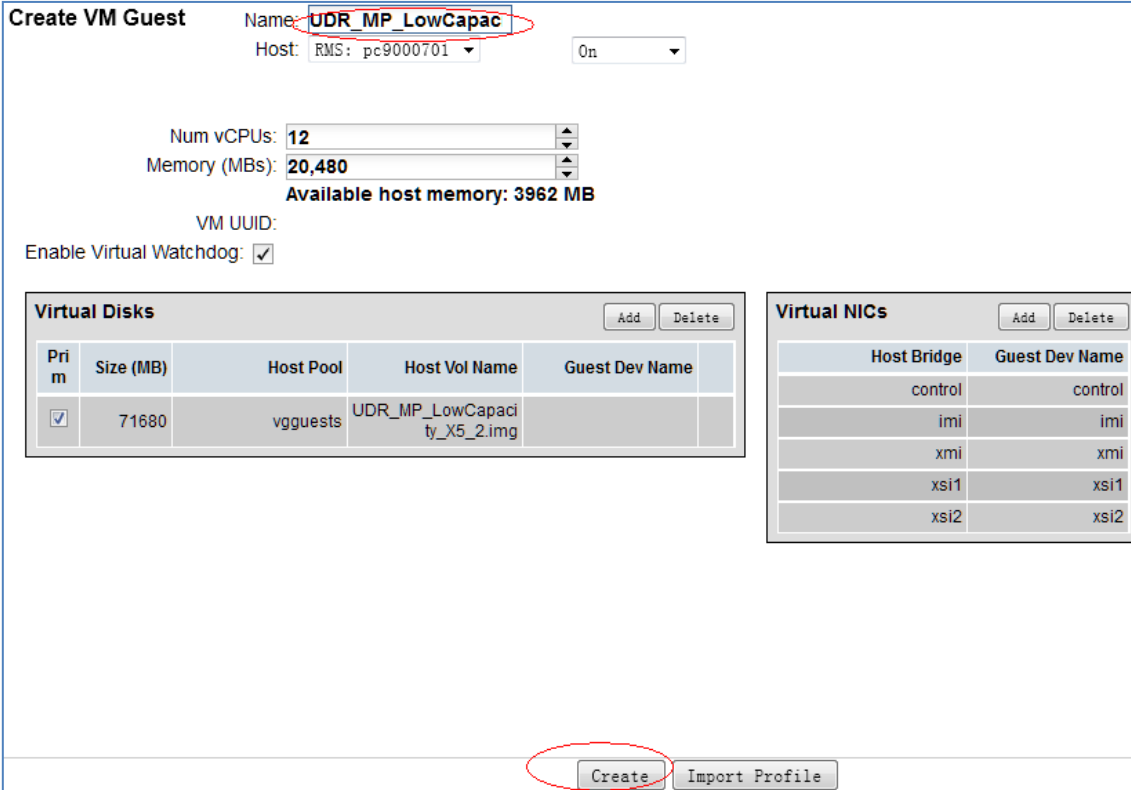
Appendix R: Add additional MPs to Gen9 Normal Capacity Configuration after upgrade

| Step                                      | Procedure   | Result   |
|---|---|--|
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p><i>Click on the Import Profile dialogue button</i></p> | <p>A “Create VM Guest” window is displayed that is similar to the below.:</p>  <p>Click “Import Profile” button .</p> <ul style="list-style-type: none"> <li>• Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>MP-5</p> <p><input type="checkbox"/>MP-6</p> |

Appendix R: Add additional MPs to Gen9 Normal Capacity Configuration after upgrade

| Step                                      | Procedure  | Result  |
|---|--|---|
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p>Select the desired ISO/Profile</p> <p><i>Select the desired ISO/Profile value</i></p> | <p>Select the desired ISO/Profile.</p> <p>In this step, use the “UDR_MP_G9_NormalCapacity ” profile</p>  <p>Click “Select Profile” button.</p> <ul style="list-style-type: none"> <li>• Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>MP-5</p> <p><input type="checkbox"/>MP-6</p> |

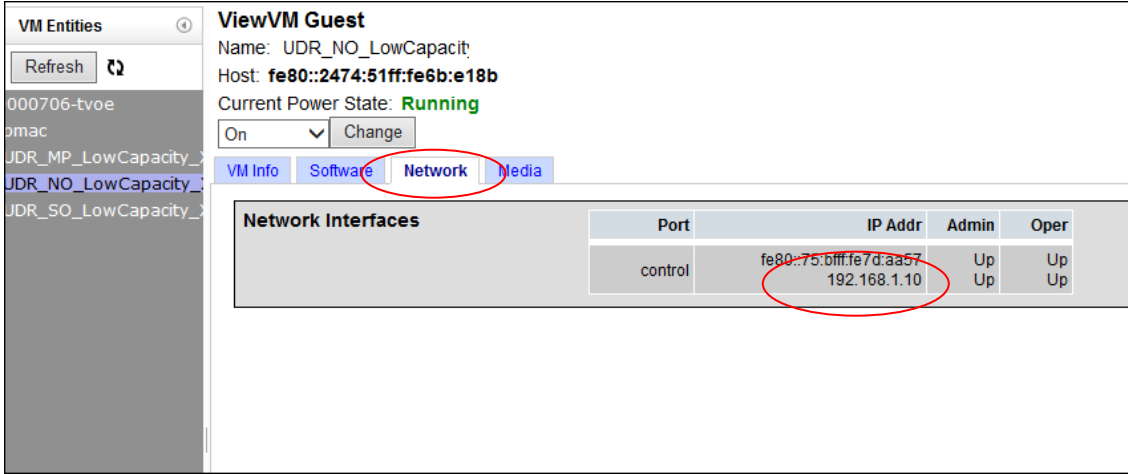
Appendix R: Add additional MPs to Gen9 Normal Capacity Configuration after upgrade

| Step                                      | Procedure   | Result  |
|---|---|---|
| <p>7.</p> <p><input type="checkbox"/></p> | <p><b>PM&amp;C GUI:</b></p> <p><i>Override the VM Guest Name to make it unique for the site</i></p> | <p>A “Create VM Guest” window is displayed that is similar to the below:</p>  <p>Override the Name field to something like: MP3 or MP4, etc. (Don’t use hyphens in the name) You could also include a location within the Name value such as MPMRSVNCA. (This will not become the ultimate hostname. It is just an internal tag for the VM host manager.)</p> <p><b>Click “Create” button</b></p> <ul style="list-style-type: none"> <li>Record the Site VM Guest Name of each VM that is added in the space provided below:</li> <li>Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>MP-5</p> <p><input type="checkbox"/>MP-6</p> |

Appendix R: Add additional MPs to Gen9 Normal Capacity Configuration after upgrade

| Step   | Procedure   | Result   |   |          |              |                     |       |              |            |      |    |                    |   |   |          |         |                     |    |
|--|---|--|---|----------|--------------|---------------------|-------|--------------|------------|------|----|--------------------|---|---|----------|---------|---------------------|----|
| <p>8.</p> <input type="checkbox"/>   | <p><b>PM&amp;C GUI:</b></p> <p>Select...</p> <p><b>Main Menu</b><br/>→<b>Task Monitoring</b></p> <p>...as shown on the right.</p>   | <p><b>Background Task Monitoring</b> <span style="float: right;">Tue Apr 21 1</span></p> <p>Filter ▾</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Running Time</th> <th>Start Time</th> <th>Prog</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>VirtAction: Create</td> <td>Host IP: ...:51ff:fe6b:e18b<br/>Guest:<br/><a href="#">UDR_MP_LowCapacity_X52</a></td> <td>Guest creation completed (UDR_MP_LowCapacity_X52)</td> <td>COMPLETE</td> <td>0:00:08</td> <td>2015-04-21 11:09:51</td> <td>10</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b>.</li> </ul> <p><input type="checkbox"/>MP-5<br/><input type="checkbox"/>MP-6</p>   | ID  | Task     | Target       | Status              | State | Running Time | Start Time | Prog | 10 | VirtAction: Create | Host IP: ...:51ff:fe6b:e18b<br>Guest:<br><a href="#">UDR_MP_LowCapacity_X52</a> | Guest creation completed (UDR_MP_LowCapacity_X52) | COMPLETE | 0:00:08 | 2015-04-21 11:09:51 | 10 |
| ID   | Task  | Target   | Status  | State    | Running Time | Start Time          | Prog  |              |            |      |    |                    |   |   |          |         |                     |    |
| 10   | VirtAction: Create  | Host IP: ...:51ff:fe6b:e18b<br>Guest:<br><a href="#">UDR_MP_LowCapacity_X52</a>  | Guest creation completed (UDR_MP_LowCapacity_X52) | COMPLETE | 0:00:08      | 2015-04-21 11:09:51 | 10    |              |            |      |    |                    |   |   |          |         |                     |    |
| <p>9.</p> <input type="checkbox"/>   | <p><b>PM&amp;C GUI:</b></p> <p><i>Verify that Create VM task successfully completes.</i></p> <p>The user should see a screen similar to the one on the right with <b>Progress</b> value of <b>100%</b>.</p> | <p>Verify that the Virtual Machine successfully created.</p> <p><b>Background Task Monitoring</b> <span style="float: right;">Tue Apr 21 1</span></p> <p>Filter ▾</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>State</th> <th>Running Time</th> <th>Start Time</th> <th>Prog</th> </tr> </thead> <tbody> <tr> <td>7</td> <td>VirtAction: Create</td> <td>Host IP: ...:51ff:fe6b:e18b<br/>Guest:<br/><a href="#">UDR_NO_LowCapacity_X52</a></td> <td>Guest creation completed (UDR_NO_LowCapacity_X52)</td> <td>COMPLETE</td> <td>0:00:10</td> <td>2015-04-21 10:49:53</td> <td>10</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b>.</li> </ul> <p><input type="checkbox"/>MP-5<br/><input type="checkbox"/>MP-6</p> | ID  | Task     | Target       | Status              | State | Running Time | Start Time | Prog | 7  | VirtAction: Create | Host IP: ...:51ff:fe6b:e18b<br>Guest:<br><a href="#">UDR_NO_LowCapacity_X52</a> | Guest creation completed (UDR_NO_LowCapacity_X52) | COMPLETE | 0:00:10 | 2015-04-21 10:49:53 | 10 |
| ID   | Task  | Target   | Status  | State    | Running Time | Start Time          | Prog  |              |            |      |    |                    |   |   |          |         |                     |    |
| 7  | VirtAction: Create  | Host IP: ...:51ff:fe6b:e18b<br>Guest:<br><a href="#">UDR_NO_LowCapacity_X52</a>  | Guest creation completed (UDR_NO_LowCapacity_X52) | COMPLETE | 0:00:10      | 2015-04-21 10:49:53 | 10    |              |            |      |    |                    |   |   |          |         |                     |    |
| <p><b>Note: Steps 4 -9</b> may be completed for each VM Guest that this PM&amp;C administers before proceeding on to the next step. This way you may install and upgrade multiple VM Guests in parallel.</p> |   |  |   |          |              |                     |       |              |            |      |    |                    |   |   |          |         |                     |    |
| <p>10.</p> <input type="checkbox"/>  | <p><i>Install Operating System (TPD)</i></p>  | <p>Follow steps defined in ...</p> <p><b>Appendix F.2</b><br/><b>Installing Operating Systems with PM&amp;C</b></p> <p>... to install TPD software on VM Guests.</p> <ul style="list-style-type: none"> <li>Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b>.</li> </ul> <p><input type="checkbox"/>MP-5<br/><input type="checkbox"/>MP-6</p>  |   |          |              |                     |       |              |            |      |    |                    |   |   |          |         |                     |    |

**Appendix R:** Add additional MPs to Gen9 Normal Capacity Configuration after upgrade

| Step                                | Procedure  | Result  |
|-------------------------------------|--|---|
| <p>11.</p> <input type="checkbox"/> | <p><i>PM&amp;C GUI:</i></p> <p>Navigate to the VM Management menu</p> <p>Select the VM Guest Name from the VM Entities list, and click “Network” tab</p> <p><i>Get and record control IP address of VM Guest</i></p> |  <p>Determine control IP address of VM Guest and record it.</p> <ul style="list-style-type: none"> <li>Record the Site control IP Address of each VM that is added in the space provided below:</li> <li>Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/> MP-5</p> <p><input type="checkbox"/> MP-6</p> |
| <p>12.</p> <input type="checkbox"/> | <p><i>Install application software.</i></p>  | <p>Follow steps defined in ...</p> <p><b>Appendix G.2</b><br/><b>Installing Oracle Communications User Data Repository Application with PM&amp;C</b></p> <p>... to install Oracle Communications User Data Repository software.</p> <ul style="list-style-type: none"> <li>Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/> MP-5</p> <p><input type="checkbox"/> MP-6</p>                 |
| <p>13.</p> <input type="checkbox"/> | <p><b>Repeat Steps 4 – 12</b> for each Virtual Machine to install its operating system and application software.</p>   |   |

**Appendix R: Add additional MPs to Gen9 Normal Capacity Configuration after upgrade**

| Step  | Procedure  | Result   |
|---|--|--|
| <p>14.</p> <input type="checkbox"/>             | <p><i>Perform upgrade acceptance.</i></p>                              | <p>Follow steps defined in ...</p> <p><b>Appendix H: Accept Application Installation on PM&amp;C Managed Servers</b></p> <p>... to accept upgrade.</p> <ul style="list-style-type: none"> <li>• Check-off the associated Check Box as addition is completed for the VM.</li> </ul> <p><input type="checkbox"/>MP-5</p> <p><input type="checkbox"/>MP-6</p> |
| <p>15.</p> <input type="checkbox"/>             | <p><i>Create Configuration for newly added Servers(All Sites).</i></p> | <p>Follow steps 9 through 28 defined in ...</p> <p><b>8.2 Create Configuration for Remaining Servers (All Sites)</b></p> <p>... to create server configuration for newly added MPs</p> <p>Note: Only do step #9 to step #28 for newly added MPs</p>  |
| <p>16.</p> <input type="checkbox"/>             | <p><i>Configuring MP Server Group</i></p>                              | <p>Follow steps defined in ...</p> <p><b>8.6: Configuring MP Server Groups (All SOAM sites)</b></p> <p>... to create server group configuration for newly added MPs.</p> <p>Note: Only do step #13 to step #23 for newly added MPs</p>   |
| <p>17.</p> <input type="checkbox"/>             | <p><i>Configuring MP Signaling Interfaces(All SOAM Sites)</i></p>      | <p>Follow steps defined in ...</p> <p><b>8.7:</b></p> <p><b>Configure MP Signaling Interfaces (All SOAM Sites)</b></p> <p>... to configure signaling interfaces for newly added MPs.</p>   |
| <p>18.</p> <input type="checkbox"/>             | <p><i>Configuring SPR Application on MP(All SOAM Sites)</i></p>        | <p>Follow steps defined in ...</p> <p><b>8.8 : Configure SPR Application on MP (All SOAM Sites)</b></p> <p>... to configure SPR Application on newly added MPs.</p>  |
| <p><b>THIS PROCEDURE HAS BEEN COMPLETED</b></p> |  |  |

## Appendix S. Updating Software and Hardware Information in Fast Deployment Configuration File

| Step                           | Procedure  | Result   |
|--------------------------------|--|--|
| 1.<br><input type="checkbox"/> | PM&C server's console                            | If PM&C server's console is not open, open the PM&C server's console using "admusr" username. Change the user to "root" using the following command:<br><br><code>sudo su -</code>   |
| 2.<br><input type="checkbox"/> | PM&C server's console                            | Navigate to the path containing Fast Deployment Configuration files using following command:<br><br><code>cd /usr/TKLC/smac/html/TPD/UDR-&lt;release&gt;-x86_64/upgrade/overlay</code>   |
| 3.<br><input type="checkbox"/> | Open the Fast Deployment configuration file.     | <b>Note:</b> If the path specified in Step 2 is not accessible, repeat Steps 1 to 6 of Appendix J: Adding Software Images to PM&C Server<br><br>Copy the Fast Deployment configuration file for the corresponding hardware to "/var/TKLC/upgrade" and open it in "write" mode using following commands:<br><br><code>cp &lt;filename&gt;.xml /var/TKLC/upgrade</code><br><code>cd /var/TKLC/upgrade</code><br><code>chmod 777 &lt;filename&gt;.xml</code><br><code>vi &lt;filename&gt;.xml</code><br><br><b>NOTE:</b> <ul style="list-style-type: none"> <li>For Normal Capacity C-class configuration, open file "normal_capacity_c-class.xml"</li> <li>For Low Capacity C-class configuration, open file "low_capacity_c-class.xml"</li> <li>For Low Capacity HP RMS / Low Capacity HP RMS with Low Speed drives configuration, open file "low_capacity_HP_RMS.xml"</li> <li>For Low Capacity Oracle RMS configuration, open file "low_capacity_oracle_RMS.xml"</li> </ul> |
| 4.<br><input type="checkbox"/> | Identify the <globals> tag in the template file. | Identify <globals> tag in the template file. This will be at the top of the template file and it contains names and paths of the software ISO images used during this installation.  |

| Step   | Procedure  | Result   |
|--|--|--|
| <p>5.</p> <input type="checkbox"/>   | <p>Update the correct image names ,paths and XMI Gateway IP in the file.</p> | <pre> &lt;globals&gt;   &lt;TvoeImageName&gt;TVOE-&lt;release&gt;-x86_64&lt;/TvoeImageName&gt;   &lt;TvoeImagePath&gt;/var/TKLC/upgrade/TVOE-&lt;release&gt;-x86_64.iso&lt;/TvoeImagePath&gt;    &lt;TpdImageName&gt;TPD.install-&lt;release&gt;-OracleLinux6.7-x86_64&lt;/TpdImageName&gt;   &lt;TpdImagePath&gt;/var/TKLC/upgrade/TPD.install-&lt;release&gt;-x86_64.iso&lt;/TpdImagePath&gt;    &lt;UdrImageName&gt;UDR-&lt;release&gt;-x86_64&lt;/UdrImageName&gt;   &lt;UdrImagePath&gt;/var/TKLC/upgrade/UDR-&lt;release&gt;-x86_64.iso&lt;/UdrImagePath&gt;    &lt;XmiGateway&gt; XMI Gateway IP here&lt;/XmiGateway&gt;   &lt;!-- example: &lt;XmiGateway&gt; 10.240.80.130 &lt;/XmiGateway&gt; --&gt; &lt;/globals&gt; </pre> <p><b>Note:</b> For low capacity HP RMS and low capacity Oracle RMS systems, &lt;TvoeImageName&gt; and &lt;TvoeImagePath&gt; tags will not be present since TVOE is installed manually for those hardware configurations.</p> <p><b>Steps:</b></p> <ol style="list-style-type: none"> <li>1. Get the image names from the path “/var/TKLC/upgrade” that were copied to this path previously.</li> <li>2. <b>TvoeImageName:</b> The name of the TVOE iso that will be given when the iso is added to PM&amp;C.<br/><b>Note:</b> DO NOT add “.iso” extension to the this, as this is only the file name.</li> <li>3. <b>TvoeImagePath :</b> The actual path of the iso, i.e., “/var/TKLC/upgrade”</li> </ol> <p>Similarly, repeat steps 1, 2 and 3 for TPD iso and UDR iso images.</p> <p>→Add XMI Gateway IP inside the &lt;XmiGateway&gt; tag.</p> |
| <p>6.</p>  | <p>Identify &lt;infrastructures&gt; tag in the template file</p>             | <p>Identify the &lt;infrastructures&gt; tag in the template xml file.</p> <p>Enter the PMAC ipaddress :</p> <pre> &lt;infrastructure name="localPMAC"&gt;   &lt;interfaces&gt;     &lt;interface&gt;       &lt;ipaddress&gt;10.240.199.143&lt;/ipaddress&gt;     &lt;/interface&gt;   &lt;/interfaces&gt; </pre>  |
| <p>7.</p> <input type="checkbox"/> | <p>Identify &lt;infrastructures&gt; tag in the template file</p>             | <p>Identify the &lt;infrastructures&gt; tag in the template xml file.</p> <p>Under this, go to &lt;hardware&gt; tag.</p>   |



| Step  | Procedure  | Result   |
|---|--|--|
| <p>8.</p> <div style="border: 1px solid black; width: 20px; height: 20px; margin-left: 5px;"></div> | <p><i>Update the cabinet and enclosure information</i></p> | <p>Under &lt;hardware&gt; tag, update the corresponding hardware information as highlighted below:</p> <p><b><u>For Normal Capacity C-class and Low Capacity C-class systems:</u></b></p> <ul style="list-style-type: none"> <li>Choose any unique id in "&lt;cabinet id=#&gt;" attribute. This will be used by Fast Deployment as a unique reference to the corresponding cabinet configured on PMAC.</li> <li>Choose any unique cabinet id in &lt;cabid&gt; tags. This will be used to configure cabinet on PMAC.</li> <li>Choose any unique id in &lt;enclosure id="#&gt;" tag. This will be used by Fast Deployment as a unique reference for the corresponding enclosure configured on PMAC.</li> <li>Choose any unique enclosure id in &lt;encid&gt; tag. This will be used to configure enclosure on PMAC.</li> <li>Enter the On-board Administrator IP addresses under the &lt;oa1&gt; and &lt;oa2&gt; tags.</li> </ul> <pre> &lt;cabinet id="1"&gt;   &lt;cabid&gt;1&lt;/cabid&gt; &lt;/cabinet&gt; &lt;enclosure id="101"&gt;   &lt;cabhwid&gt;1&lt;/cabhwid&gt;   &lt;encid&gt;101&lt;/encid&gt;   &lt;oa1&gt;10.240.55.133&lt;/oa1&gt;   &lt;oa2&gt;10.240.55.134&lt;/oa2&gt; &lt;/enclosure&gt; </pre> <p style="color: red; margin-left: 500px;">Cabinet id should be same here</p> <p><b><u>For HP RMS / Oracle RMS systems:</u></b></p> <ul style="list-style-type: none"> <li>Choose any unique id in "&lt;cabinet id=#&gt;" attribute. This will be used by Fast Deployment as a unique reference to the cabinet.</li> <li>Choose any unique cabinet id in &lt;cabid&gt; tags. This will be used to configure cabinet on PMAC.</li> <li>Choose any unique id in "&lt;rms id=#&gt;" attribute. This will be used by Fast Deployment as a unique reference to the RMS configured on PMAC.</li> <li>Enter the RMS iLO console's IP address under &lt;rmsOOBIP&gt; tag.</li> </ul> <pre> &lt;hardware&gt;   &lt;cabinet id="1"&gt;     &lt;cabid&gt;1&lt;/cabid&gt;   &lt;/cabinet&gt;   &lt;rms id="any_rms_id"&gt;     &lt;rmsOOBIP&gt;iLO_ip_address&lt;/rmsOOBIP&gt;     &lt;rmsname&gt;unique_rms_name&lt;/rmsname&gt;     &lt;cabhwid&gt;1&lt;/cabhwid&gt;   &lt;/rms&gt; &lt;/hardware&gt; </pre> <p style="color: red; margin-left: 500px;">Cabinet id should be same here</p> |
| <p><b>THIS PROCEDURE IS COMPLETE</b></p>  |  |  |

## Appendix T. Updating Fast Deployment Configuration File for Installing TVOE in C-class systems

|                                |  |   |
|--------------------------------|--|---|
| 1.<br><input type="checkbox"/> | <i>Identify &lt;tvoehost&gt; tag under &lt;infrastructure s&gt; tag in the Fast Deployment configuration file.</i> | Identify the <tvoehost> tag under <infrastructures> tag in the template xml file. These xml tags contains the configuration for normal capacity NO servers.   |
| 2.<br><input type="checkbox"/> | <i>Add the correct hardware info under &lt;tvoehost&gt; tag</i>  | Identify the <hardware> tag and replace the existing info with correct hardware information (enclosure, bay):<br><br><pre> &lt;hardware&gt;   &lt;enclosure&gt;     &lt;enchwid&gt;101&lt;/enchwid&gt;     &lt;bay&gt;5F&lt;/bay&gt;   &lt;/enclosure&gt; &lt;/hardware&gt; </pre>  |
| 3.<br><input type="checkbox"/> | <i>Add VLAN for XMI</i>  | Identify the <tpdnetworking> tag in the template file under the "<tvoehost>" tag for this server.<br>Under <tpdnetworking>, update XMI vlan id as following:<br><pre> &lt;tpdinterface id="bond0.#xmiVlanId"&gt;   &lt;device&gt;bond0.#xmiVlanId&lt;/device&gt;   &lt;type&gt;Vlan&lt;/type&gt;   &lt;vlandata&gt;     &lt;vlanid&gt;#xmiVlanId&lt;/vlanid&gt;   &lt;/vlandata&gt;   &lt;onboot&gt;yes&lt;/onboot&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt; &lt;/tpdinterface&gt; </pre> <b>Replace the values as highlighted with XMI network parameters.</b> |
| 4.<br><input type="checkbox"/> | <i>Add VLAN for IMI</i>  | Repeat the process done in <b>Step 3</b> for IMI network.   |

|  |                                       |  |
|--|---------------------------------------|--|
| <p>5.<br/><input type="checkbox"/></p> | <p><i>Add VLAN for management</i></p> | <p><b>Note:</b> Some lab deployments may host TVOE and PMAC on the XMI network/bridge instead of a separate routable management. This step is only required if the deployment has a separate management network.</p> <p>Under &lt;tpdnetworking&gt;, update XMI vlan id as following:</p> <pre> &lt;tpdinterface id="bond0.managementVlanId"&gt;   &lt;device&gt;bond0.#managementVlanId&lt;/device&gt;   &lt;type&gt;Vlan&lt;/type&gt;   &lt;vlandata&gt;     &lt;vlanid&gt;#managementVlanId&lt;/vlanid&gt;   &lt;/vlandata&gt;   &lt;onboot&gt;yes&lt;/onboot&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt; &lt;/tpdinterface&gt; </pre> <p><b>Replace the values as highlighted with XMI network parameters.</b></p> |
|--|---------------------------------------|--|

|   |   |  |
|---|---|--|
| <p>6.</p> <p><input type="checkbox"/></p> | <p><b>TVOE server:</b></p> <p><i>Topology Check</i></p> | <p><u>The next steps will depend on the system topology.</u></p> <p><b>Note: If the user is unfamiliar with which topology is being deployed, access the Onboard Administrator (OA) web interface and look at “Rack Overview.”</b></p> <p>This will present the rear view of the enclosure.</p> <p>Highlighted in red are a single pair of enclosure switches on a Topology 1/1A system without a dedicated signaling path (Topology 1/1A and Topology 3/3A):</p> <div> <p>Rack Topology    Rack Power and Thermal</p> <p>Enclosure: xgSDM-6_and_xgSDM-7</p> <p>Front View                      Rear View</p> </div> <p>Highlighted in red are two pairs of enclosure switches on a system with dedicated signalling path (Topology 4/4A) system:</p> <div> <p>Rack Topology    Rack Power and Thermal</p> <p>Enclosure: 121_08_23_xgSDM5_Site1</p> <p>Front View                      Rear View</p> </div> |
|---|---|--|

|  |  |  |
|--|--|--|
| <p>7.<br/><input type="checkbox"/></p> | <p>Add bond for signalling<br/><br/>[Topology 4 and 4A only]</p> | <p><b><u>Topology 4 and Topology 4A ONLY:</u></b></p> <p>Deployments with two pairs of enclosure switches (<b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will host XSI on <b>bond1</b>:</p> <p><b>Add the following configuration after the IMI configuration updated in previous steps:</b></p> <pre>&lt;tpdinterface id="bond1"&gt;   &lt;device&gt;bond1&lt;/device&gt;   &lt;type&gt;Bonding&lt;/type&gt;   &lt;bonddata&gt;     &lt;bondinterfaces&gt;eth11,eth12&lt;/bondinterfaces&gt;   &lt;/bonddata&gt;   &lt;onboot&gt;yes&lt;/onboot&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt; &lt;/tpdinterface&gt;</pre>  |
| <p>9.<br/><input type="checkbox"/></p> | <p>Add VLAN for XSI-1 in Fast Deployment Configuration File</p>  | <p>Under &lt;tpdnetworking&gt;, update XMI vlan id as following:</p> <p><b><u>For Topology 1/1A and Topology 3/3A XSI vlan is created on bond 0</u></b></p> <pre>&lt;tpdinterface id="bond0.#xsiVlanId"&gt;   &lt;device&gt;bond0.#xsiVlanId&lt;/device&gt;   &lt;type&gt;Vlan&lt;/type&gt;   &lt;vlandata&gt;     &lt;vlanid&gt;#xsiVlanId&lt;/vlanid&gt;   &lt;/vlandata&gt;   &lt;onboot&gt;yes&lt;/onboot&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt; &lt;/tpdinterface&gt;</pre> <p>. . . <b>or</b> . . .</p> <p><b><u>For Topology 4 and Topology 4A XSI vlan is created on bond 1</u></b></p> <pre>&lt;tpdinterface id="bond1.#xsiVlanId"&gt;   &lt;device&gt;bond1.#xsiVlanId&lt;/device&gt;   &lt;type&gt;Vlan&lt;/type&gt;   &lt;vlandata&gt;     &lt;vlanid&gt;#xsiVlanId&lt;/vlanid&gt;   &lt;/vlandata&gt;   &lt;onboot&gt;yes&lt;/onboot&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt; &lt;/tpdinterface&gt;</pre> |

Repeat **Step 8** for additional **XSI** networks if they are present, each using its own unique <xsi\_vlan> number.

**Note:** XSI1 and XSI2 are mandatory for a TVOE, because these are used by VM profiles during guest creation

|                                     |  |  |
|-------------------------------------|--|--|
| <p>10.</p> <input type="checkbox"/> | <p>Add bridge network for XMI and IMI</p>                              | <p>Under the "&lt;tpdbridge&gt;" tag, update the XMI bridge network as highlighted below:</p> <p><b>Note:</b> If the deployment has a separate routable management network, remove the lines with &lt;address&gt; and &lt;netmask&gt; tags. TVOE and PMAC will be hosted on management network in that case.</p> <pre>&lt;tpdbridge id="xmi"&gt;   &lt;name&gt;xmi&lt;/name&gt;   &lt;interfaces&gt;bond0.#XmiVlanId&lt;/interfaces&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt;   &lt;address&gt;TVOE_XMI_address&lt;/address&gt;   &lt;netmask&gt;tvoe_xmi_netmask&lt;/netmask&gt;   &lt;onboot&gt;yes&lt;/onboot&gt; &lt;/tpdbridge&gt;</pre> <p>Similarly, add bridge network for IMI as below:</p> <pre>&lt;tpdbridge id="imi"&gt;   &lt;name&gt;imi&lt;/name&gt;   &lt;interfaces&gt;bond0.#imiVlanId&lt;/interfaces&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt;   &lt;onboot&gt;yes&lt;/onboot&gt; &lt;/tpdbridge&gt;</pre> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• The IP address should be specified in a valid IPv4 format.</li> <li>• Vlan ID should be a valid number (like 3,4,5 etc.)</li> </ul> |
| <p>11.</p> <input type="checkbox"/> | <p>Add bridge network for management (if separate network present)</p> | <p><b>Note:</b> Lab deployments may host TVOE and PMAC on the XMI network/bridge instead of a separate routable management. This step is only required if the deployment has a separate management network.</p> <p>Under the "&lt;tpdbridge&gt;" tag, update the management bridge network as highlighted below:</p> <pre>&lt;tpdbridge id="management"&gt;   &lt;name&gt;management&lt;/name&gt;   &lt;interfaces&gt;bond0.#managementVlanId&lt;/interfaces&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt;   &lt;address&gt;TVOE_management_address&lt;/address&gt;   &lt;netmask&gt;management_netmask&lt;/netmask&gt;   &lt;onboot&gt;yes&lt;/onboot&gt; &lt;/tpdbridge&gt;</pre>  |

|  |  |   |
|--|--|---|
| <p>12.</p> <input type="checkbox"/>  | <p><i>Add bridge network for XSI-1</i></p> | <p>Deployments with only one pair of enclosure switches (<b>Topology 1/1A</b> and <b>Topology 3/3A</b> in reference [4]) will create XSI VLAN on <b>bond0</b>:</p> <pre>&lt;tpdbridge id="xsi1"&gt;   &lt;name&gt;xsi1&lt;/name&gt;   &lt;interfaces&gt;bond0.#xsi1VlanId&lt;/interfaces&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt;   &lt;onboot&gt;yes&lt;/onboot&gt; &lt;/tpdbridge&gt;</pre> <p>. . . <b>or</b> . . .</p> <p>Deployments with two pairs of enclosure switches (<b>Topology 4</b> and <b>Topology 4A</b> in reference [4]) will create XSI VLAN on <b>bond1</b>:</p> <pre>&lt;tpdbridge id="xsi1"&gt;   &lt;name&gt;xsi1&lt;/name&gt;   &lt;interfaces&gt;bond1.#xsi1VlanId&lt;/interfaces&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt;   &lt;onboot&gt;yes&lt;/onboot&gt; &lt;/tpdbridge&gt;</pre> |
| <p>Repeat <b>Step 11</b> for additional <b>XSI</b> networks if they are present, each using its own unique <code>&lt;xsi_vlan&gt;</code> number.</p> |  |   |

|  |  |   |
|--|--|---|
| <p>13.</p> <p><input type="checkbox"/></p> | <p>Add the default route to XMI/management</p> | <p>Under &lt;tpdnetworking&gt;, identify &lt;tpdroutes&gt; tag and update the correct parameters:</p> <p><b>For deployments that host TVOE and PMAC on XMI network and do not have a separate routable management network, No changes in the XML is required:</b></p> <p>. . . . <b>or</b> . . . .</p> <p><b>For deployments that host TVOE and PMAC on a separate routable management network:</b></p> <pre> &lt;tpdroutes&gt;   &lt;tpdroute id="management_default"&gt;     &lt;type&gt;default&lt;/type&gt;     &lt;device&gt;management&lt;/device&gt;     &lt;gateway&gt;management_default_route_ip&lt;/gateway&gt;   &lt;/tpdroute&gt; &lt;/tpdroutes&gt; </pre> <p>Update the highlighted values with correct parameters to add a route to XMI.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• The IP address should be specified in a valid IPv4 format.</li> <li>• Vlan ID should be a valid number (like 3,4,5 etc.)</li> </ul> |
|--|--|---|



|  |   |   |
|--|---|---|
| <p>14.</p> <p><input type="checkbox"/></p> | <p><i>Update the server information</i></p> | <p>Identify the <b>&lt;serverinfo&gt;</b> tag for this server in the template file. Update the following <b>highlighted</b> parameters:</p> <pre> &lt;serverinfo&gt;   &lt;hostname&gt;BL908050105-tvoe&lt;/hostname&gt;   &lt;ntpserveres&gt;     &lt;ntpserver&gt;       &lt;ipaddress&gt;192.168.1.1&lt;/ipaddress&gt;       &lt;options&gt;iburst&lt;/options&gt;     &lt;/ntpserver&gt;     &lt;ntpserver&gt;       &lt;ipaddress&gt;10.250.32.51&lt;/ipaddress&gt;       &lt;options&gt;iburst&lt;/options&gt;     &lt;/ntpserver&gt;   &lt;/ntpserveres&gt;   &lt;timezone&gt;America/New_York&lt;/timezone&gt; &lt;/serverinfo&gt; </pre> <ul style="list-style-type: none"> <li>• &lt;hostname&gt; is the actual unix hostname that will be provided to this server.</li> <li>• There can be multiple NTP servers. If the actual number of NTP servers is greater/less than that present in the template file, add/remove following under the &lt;ntpserveres&gt; from the template: <pre> &lt;ntpserver&gt;   &lt;ipaddress&gt;10.250.32.51&lt;/ipaddress&gt;   &lt;options&gt;iburst&lt;/options&gt; &lt;/ntpserver&gt; </pre> </li> <li>• Set the Actual timezone for this server inside &lt;timezone&gt; tag.</li> </ul> |
| <p><b>THIS PROCEDURE IS COMPLETE</b></p>   |   |   |

**Appendix U. Update Fast Deployment Configuration File to create, IPM and Install Application on all Virtual Machines**

| Step  | Procedure                                     | Result   |
|---|---|--|
| <p>1.</p> <input type="checkbox"/>  | <p><i>Creating Virtual Guests/Servers</i></p> | <p>Virtual guests' details are added under &lt;servers&gt; tag using &lt;tvoeguest&gt; tag.</p> <p><b>Steps:</b></p> <ol style="list-style-type: none"> <li>1. Provide a unique tvoeguest id for each of the servers under “&lt;tvoeguest” tag.</li> <li>2. Update the correct tvoehost id that will host this VM guest under the &lt;tvoehost&gt; tag as <b>highlighted</b> below.</li> <li>3. Update the guest name under &lt;name&gt; tag.</li> <li>4. Under the &lt;profile&gt; tag, update the Profile name for the VM guest as <b>highlighted</b> below:</li> </ol> <pre> &lt;tvoeguest id="NO-A" delete="yes"&gt;   &lt;infrastructure&gt;localPMAC&lt;/infrastructure&gt;   &lt;tvoehost&gt;tvoe&lt;/tvoehost&gt;   &lt;name&gt;NO-A&lt;/name&gt;   &lt;profile&gt;     &lt;image&gt;UDR&lt;/image&gt;     &lt;name&gt;UDR_NO_LowCapacity_X5_2&lt;/name&gt;   &lt;/profile&gt; </pre> <p><b>Refer to the next step to know which VM profile corresponds to your hardware configuration.</b></p> |
| <p><b>Step 2 contains various VM profiles corresponding to different hardware configurations. Choose the correct VM profile for guest creation.</b></p> |   |  |


| Step   | Procedure  | Result   |
|--|--|--|
| <p>2.</p> <input type="checkbox"/> | <p><i>Various VM Guest profiles corresponding to different hardware configurations</i></p> | <ul style="list-style-type: none"> <li><b>a. For Low Capacity Oracle RMS Setup:</b> <ul style="list-style-type: none"> <li>1. For NOAMP server, use profile “<b>UDR_NO_LowCapacity_X5_2</b>”</li> <li>2. For SOAM server, use profile “<b>UDR_SO_LowCapacity_X5_2</b>”</li> <li>3. For MP server, use profile “<b>UDR_MP_LowCapacity_X5_2</b>”</li> </ul> </li> <br/> <li><b>b. Low Capacity HP RMS / Low Capacity Gen-8 C-class Configuration:</b> <ul style="list-style-type: none"> <li>1. If creating a VM for a NOAMP server, use the “<b>UDR_NO_LowCapacity</b>” profile.</li> <li>2. If creating a VM for a SOAM server, use the “<b>UDR_SO_LowCapacity</b>” profile.</li> <li>3. If creating a VM for an MP, use the “<b>UDR_MP_LowCapacity</b>” profile.</li> </ul> </li> <br/> <li><b>c. Gen 9 Low Capacity C-class Configuration:</b> <ul style="list-style-type: none"> <li>1. If creating a VM for a NOAMP server, use the “<b>UDR_25K_NO_LowCapacity</b>” profile.</li> <li>2. If creating a VM for a SOAM server, use the “<b>UDR_SO_LowCapacity</b>” profile.</li> <li>3. If creating a VM for an MP, use the “<b>UDR_MP_LowCapacity</b>” profile.</li> </ul> </li> <br/> <li><b>d. Low Capacity HP RMS with Low Speed Drives Configuration:</b> <ul style="list-style-type: none"> <li>1. If creating a VM for a NOAMP server, use the profile “<b>UDR_NO_LowCapacity_64GB</b>”.</li> <li>2. If creating a VM for a SOAM server, use the “<b>UDR_SO_LowCapacity_64GB</b>” profile.</li> <li>3. If creating a VM for an MP, use the “<b>UDR_MP_LowCapacity_64GB</b>” profile.</li> </ul> </li> <br/> <li><b>e. For Normal Capacity C-Class Setup</b> <ul style="list-style-type: none"> <li>1. If creating a VM for a SOAM server, use the “<b>UDR_SO</b>” profile.</li> <li>2. If creating a VM for an MP:                             <ul style="list-style-type: none"> <li>a. Use the “<b>UDR_MP_G9_NormalCapacity</b>” profile for Gen-9 configuration.</li> <li>b. Use the “<b>UDR_MP</b>” profile for Gen-8 configuration.</li> </ul> </li> </ul> </li> </ul> |

| Step  | Procedure   | Result   |
|---|---|--|
| <p>3.<br/><input type="checkbox"/></p>  | <p><b>For Virtualized NOAMP:<br/>Active NOAMP only</b></p> <p><i>Create temporary external XMI IP for Active Primary NOAMP Server</i></p> | <p><b>Update the networking information for Active NOAMP or if only one NOAMP:</b></p> <p>Identify the &lt;tpdnetworking&gt; tag in the configuration file under the &lt;tvoeguest&gt; tag for this server.</p> <p>Under &lt;tpdnetworking&gt;, update the XMI interface:</p> <pre> &lt;tpdinterface id="xmi"&gt;   &lt;device&gt;xmi&lt;/device&gt;   &lt;type&gt;Ethernet&lt;/type&gt;   &lt;onboot&gt;yes&lt;/onboot&gt;   &lt;bootproto&gt;none&lt;/bootproto&gt;   &lt;address&gt;NO's XMI IPV4 address here&lt;/address&gt;   &lt;netmask&gt;XMI Netmask here&lt;/netmask&gt; &lt;/tpdinterface&gt; </pre> <p><i>Replace the values highlighted with XMI network parameters.</i></p> <p><b>Note:</b> The IP address should be specified in a valid IPv4 format.</p> |
| <p><b>Below Step is for Creating Additional Virtual Guests for MP servers if Required in Gen-9 C-Class Configurations</b></p> |   |  |

| Step   | Procedure                                 | Result  |
|--|---|---|
| <p>4.</p> <input type="checkbox"/> | <p><b>Add tags for additional MPs</b></p> | <p><b>Add the following tags under the &lt;servers&gt; tag in the Fast Deployment configuration file:</b></p> <pre> &lt;tvoeguest id="site1-tvoe2-mp"&gt;   &lt;infrastructure&gt;localPMAC&lt;/infrastructure&gt;   &lt;tvoehost&gt;Site1-tvoe-2&lt;/tvoehost&gt;   &lt;name&gt;Site1-tvoe2-MP&lt;/name&gt;   &lt;profile&gt;     &lt;image&gt;UDR&lt;/image&gt;     &lt;name&gt;UDR_MP_LowCapacity&lt;/name&gt;   &lt;/profile&gt;   &lt;software&gt;     &lt;image&gt;       &lt;id&gt;TPD&lt;/id&gt;       &lt;type&gt;ipm&lt;/type&gt;     &lt;/image&gt;     &lt;image&gt;       &lt;id&gt;UDR&lt;/id&gt;       &lt;type&gt;upgrade&lt;/type&gt;     &lt;/image&gt;   &lt;/software&gt; &lt;/tvoeguest&gt; </pre> <p><b>Update the VM information in this section as mentioned in Step-1.</b></p> |
| <p><b>THIS PROCEDURE IS COMPLETE</b></p>                       |   |   |

## Appendix V. Executing Fast Deployment To Begin Installation

### Procedure 25: Executing Fast Deployment to Install Normal Capacity C-Class Setup

| Step                           | Procedure  | Result  |
|--------------------------------|--|---|
| 1.<br><input type="checkbox"/> | PM&C server's console                                  | Login to the PM&C console using "admusr" and provided password. Change user to "root" using the following command on server's console:<br><code>sudo su -</code>  |
| 2.<br><input type="checkbox"/> | Verify the ISO images on PM&C                          | Run the following command to change directory:<br><code>cd /var/TKLC/upgrade</code>   |
| 3.<br><input type="checkbox"/> | Validate the Updated xml template file on PM&C Console | Execute the following command to validate the updated template file:<br><code>fdconfig validate --file=&lt;ConfigurationFileName&gt;.xml</code><br><br>If all the changes in the template file are valid, this command will return success output as below:<br><br><pre>Validate configuration file: "test.xml" --- NOTICE --- Config Data saved as a new file: "./test_20160624T054150_0f14.xml" --- NOTICE ---  Configuration file validation successful. Validation complete</pre> |
| 4.<br><input type="checkbox"/> | Execute the fast deployment on PM&C console            | Execute the following command to start the fast deployment process from the template file:<br><code>fdconfig config --file=&lt; ConfigurationFileName&gt;.xml</code>  |
| 5.<br><input type="checkbox"/> | <b>PM&amp;C GUI:</b><br>Login to PM&C GUI              | Open web browser and enter: <code>http://&lt;pmac_management_network_ip&gt;</code><br>Login as guidadmin user.<br><br>  |

Procedure 25: Executing Fast Deployment to Install Normal Capacity C-Class Setup

| Step   | Procedure  | Result   |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
|--|--|--|---|----------|------------|---------------------|--------------|------------|----------|--------------|------|--------------|--|--|----------|------------|---------------------|------|------------|----------------|--|---|----------------|---------|---------------------|----------------|------|------------|-----------------|-------------------------------------|----------|---------|---------------------|------|------|------------|-----------------|-------------------------------------|----------|---------|---------------------|------|------|------------|----------------|-------------------------------------|----------|---------|---------------------|------|------|------------|----------------|-------------------------------------|----------|---------|---------------------|------|------|-----------|--|-------------------------------------|----------|---------|---------------------|------|------|-----------|--|---|----------|---------|---------------------|------|------|-----------|--|-------------------------------------|----------|---------|---------------------|------|
| <p>6.</p> <p><input type="checkbox"/></p>  | <p>Navigate to Task Monitoring</p>               |  <p>The screenshot shows the Oracle Platform Management &amp; Configuration interface. On the left, a 'Main Menu' tree is visible with 'Task Monitoring' highlighted and circled in red. The main area displays 'Main Menu: Task Monitoring' with a filter dropdown and a table of tasks:</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> </tr> </thead> <tbody> <tr> <td>1109</td> <td>Backup PM&amp;C</td> <td></td> </tr> <tr> <td>1108</td> <td>Backup PM&amp;C</td> <td></td> </tr> <tr> <td>1107</td> <td>Accept</td> <td>Enc:101 Bay:3F</td> </tr> <tr> <td>1106</td> <td>Run Script</td> <td>Enc:101 Bay:9F</td> </tr> <tr> <td>1105</td> <td>Run Script</td> <td>Enc:101 Bay:9F</td> </tr> <tr> <td>1104</td> <td>Run Script</td> <td>Enc:101 Bay:9F</td> </tr> <tr> <td>1103</td> <td>File Transfer</td> <td>Enc:101 Bay:9F</td> </tr> </tbody> </table>   | ID  | Task     | Target     | 1109                | Backup PM&C  |            | 1108     | Backup PM&C  |      | 1107         | Accept                                   | Enc:101 Bay:3F                             | 1106     | Run Script | Enc:101 Bay:9F      | 1105 | Run Script | Enc:101 Bay:9F | 1104                                       | Run Script                                  | Enc:101 Bay:9F | 1103    | File Transfer       | Enc:101 Bay:9F |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| ID   | Task   | Target   |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1109   | Backup PM&C                                      |  |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1108   | Backup PM&C                                      |  |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1107   | Accept   | Enc:101 Bay:3F   |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1106   | Run Script                                       | Enc:101 Bay:9F   |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1105   | Run Script                                       | Enc:101 Bay:9F   |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1104   | Run Script                                       | Enc:101 Bay:9F   |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1103   | File Transfer                                    | Enc:101 Bay:9F   |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| <p>7.</p> <p><input type="checkbox"/></p>  | <p>Monitor the on-going tasks</p>                | <p>The ongoing tasks during the installation will be visible in the “Task Monitoring” GUI section. A screenshot example is below:</p> <table border="1"> <thead> <tr> <th>ID</th> <th>Task</th> <th>Target</th> <th>Status</th> <th>Progress</th> <th>Start Time</th> <th>End Time</th> <th>Completion %</th> </tr> </thead> <tbody> <tr> <td>1033</td> <td>Create Guest</td> <td>Enc:101 Bay:5F<br/>Guest: BL908050105-mp1</td> <td>Guest creation completed (BL908050105-mp1)</td> <td>COMPLETE</td> <td>0:00:18</td> <td>2016-06-28 06:35:10</td> <td>100%</td> </tr> <tr> <td>1032</td> <td>Create Guest</td> <td>Enc:101 Bay:14F<br/>Guest: BL908050114-so-b</td> <td>Guest creation completed (BL908050114-so-b)</td> <td>COMPLETE</td> <td>0:00:13</td> <td>2016-06-28 06:35:04</td> <td>100%</td> </tr> <tr> <td>1031</td> <td>Install OS</td> <td>Enc:101 Bay:14F</td> <td>Done: TVOE-3.2.0.0.0_88.22.0-x86_64</td> <td>COMPLETE</td> <td>0:33:06</td> <td>2016-06-28 05:53:41</td> <td>100%</td> </tr> <tr> <td>1030</td> <td>Install OS</td> <td>Enc:101 Bay:13F</td> <td>Done: TVOE-3.2.0.0.0_88.22.0-x86_64</td> <td>COMPLETE</td> <td>0:33:17</td> <td>2016-06-28 05:53:40</td> <td>100%</td> </tr> <tr> <td>1029</td> <td>Install OS</td> <td>Enc:101 Bay:6F</td> <td>Done: TVOE-3.2.0.0.0_88.22.0-x86_64</td> <td>COMPLETE</td> <td>0:32:59</td> <td>2016-06-28 05:53:38</td> <td>100%</td> </tr> <tr> <td>1028</td> <td>Install OS</td> <td>Enc:101 Bay:5F</td> <td>Done: TVOE-3.2.0.0.0_88.22.0-x86_64</td> <td>COMPLETE</td> <td>0:33:31</td> <td>2016-06-28 05:53:37</td> <td>100%</td> </tr> <tr> <td>1024</td> <td>Add Image</td> <td></td> <td>Done: TVOE-3.2.0.0.0_88.22.0-x86_64</td> <td>COMPLETE</td> <td>0:00:45</td> <td>2016-06-28 05:20:17</td> <td>100%</td> </tr> <tr> <td>1023</td> <td>Add Image</td> <td></td> <td>Done: TPD.install-7.2.0.0.0_88.22.0-OracleLinux6.7.x86_64</td> <td>COMPLETE</td> <td>0:00:46</td> <td>2016-06-28 05:20:16</td> <td>100%</td> </tr> <tr> <td>1022</td> <td>Add Image</td> <td></td> <td>Done: UDR-12.2.0.0.0_14.10.0-x86_64</td> <td>COMPLETE</td> <td>0:00:55</td> <td>2016-06-28 05:20:16</td> <td>100%</td> </tr> </tbody> </table> | ID  | Task     | Target     | Status              | Progress     | Start Time | End Time | Completion % | 1033 | Create Guest | Enc:101 Bay:5F<br>Guest: BL908050105-mp1 | Guest creation completed (BL908050105-mp1) | COMPLETE | 0:00:18    | 2016-06-28 06:35:10 | 100% | 1032       | Create Guest   | Enc:101 Bay:14F<br>Guest: BL908050114-so-b | Guest creation completed (BL908050114-so-b) | COMPLETE       | 0:00:13 | 2016-06-28 06:35:04 | 100%           | 1031 | Install OS | Enc:101 Bay:14F | Done: TVOE-3.2.0.0.0_88.22.0-x86_64 | COMPLETE | 0:33:06 | 2016-06-28 05:53:41 | 100% | 1030 | Install OS | Enc:101 Bay:13F | Done: TVOE-3.2.0.0.0_88.22.0-x86_64 | COMPLETE | 0:33:17 | 2016-06-28 05:53:40 | 100% | 1029 | Install OS | Enc:101 Bay:6F | Done: TVOE-3.2.0.0.0_88.22.0-x86_64 | COMPLETE | 0:32:59 | 2016-06-28 05:53:38 | 100% | 1028 | Install OS | Enc:101 Bay:5F | Done: TVOE-3.2.0.0.0_88.22.0-x86_64 | COMPLETE | 0:33:31 | 2016-06-28 05:53:37 | 100% | 1024 | Add Image |  | Done: TVOE-3.2.0.0.0_88.22.0-x86_64 | COMPLETE | 0:00:45 | 2016-06-28 05:20:17 | 100% | 1023 | Add Image |  | Done: TPD.install-7.2.0.0.0_88.22.0-OracleLinux6.7.x86_64 | COMPLETE | 0:00:46 | 2016-06-28 05:20:16 | 100% | 1022 | Add Image |  | Done: UDR-12.2.0.0.0_14.10.0-x86_64 | COMPLETE | 0:00:55 | 2016-06-28 05:20:16 | 100% |
| ID   | Task   | Target   | Status  | Progress | Start Time | End Time            | Completion % |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1033   | Create Guest                                     | Enc:101 Bay:5F<br>Guest: BL908050105-mp1   | Guest creation completed (BL908050105-mp1)                | COMPLETE | 0:00:18    | 2016-06-28 06:35:10 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1032   | Create Guest                                     | Enc:101 Bay:14F<br>Guest: BL908050114-so-b   | Guest creation completed (BL908050114-so-b)               | COMPLETE | 0:00:13    | 2016-06-28 06:35:04 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1031   | Install OS                                       | Enc:101 Bay:14F  | Done: TVOE-3.2.0.0.0_88.22.0-x86_64                       | COMPLETE | 0:33:06    | 2016-06-28 05:53:41 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1030   | Install OS                                       | Enc:101 Bay:13F  | Done: TVOE-3.2.0.0.0_88.22.0-x86_64                       | COMPLETE | 0:33:17    | 2016-06-28 05:53:40 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1029   | Install OS                                       | Enc:101 Bay:6F   | Done: TVOE-3.2.0.0.0_88.22.0-x86_64                       | COMPLETE | 0:32:59    | 2016-06-28 05:53:38 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1028   | Install OS                                       | Enc:101 Bay:5F   | Done: TVOE-3.2.0.0.0_88.22.0-x86_64                       | COMPLETE | 0:33:31    | 2016-06-28 05:53:37 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1024   | Add Image  |  | Done: TVOE-3.2.0.0.0_88.22.0-x86_64                       | COMPLETE | 0:00:45    | 2016-06-28 05:20:17 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1023   | Add Image  |  | Done: TPD.install-7.2.0.0.0_88.22.0-OracleLinux6.7.x86_64 | COMPLETE | 0:00:46    | 2016-06-28 05:20:16 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| 1022   | Add Image  |  | Done: UDR-12.2.0.0.0_14.10.0-x86_64                       | COMPLETE | 0:00:55    | 2016-06-28 05:20:16 | 100%         |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| <p>8.</p>  | <p>PM&amp;C console</p>                          | <p>On completion of installation by Fast deployment, following message will be displayed:</p> <pre>Configuration steps complete Database of steps can be found in deploy_uds3_20160628T055306_2773.fdcdb [root@pmac9080502 FDC]</pre>  |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| <p><b>NOTE: In case there is some error in execution of fast deployment or there is some halt due to an interrupt, the summary of the executed steps, failed steps and pending steps can be seen as below:</b></p> |  |  |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |
| <p>9.</p>  | <p>Note down the deployment report file name</p> | <p>There will be an output like below in case of a failure. Note down the deployment report file name:</p> <pre>Configuration steps not complete, Errors encountered Database of steps can be found in deploy_uds3_20160628T055306_2773.fdcdb Execution had errors! [root@pmac9080502]</pre>   |   |          |            |                     |              |            |          |              |      |              |  |  |          |            |                     |      |            |                |  |   |                |         |                     |                |      |            |                 |                                     |          |         |                     |      |      |            |                 |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |            |                |                                     |          |         |                     |      |      |           |  |                                     |          |         |                     |      |      |           |  |   |          |         |                     |      |      |           |  |                                     |          |         |                     |      |

**Procedure 25: Executing Fast Deployment to Install Normal Capacity C-Class Setup**

| Step                                     | Procedure                         | Result   |
|--|-----------------------------------|--|
| 10.                                      | <i>PMAC Server's Console</i>      | Run the following command:<br><code>fdconfig dumpsteps --file=deploy_udr3_20160628T055306_2773.fdcdb</code>  |
| 11.                                      | <i>Resuming the pending steps</i> | If the deployment failed/stopped due to a known reason like a user interrupt, the fast deployment can be resumed from the steps it stopped using the following command:<br><code>fdconfig restart --file=deploy_udr3_20160628T055306_2773.fdcdb</code> |
| <b>THIS PROCEDURE HAS BEEN COMPLETED</b> |                                   |  |



## Appendix W. Oracle Communications User Data Repository Fast Deployment Configuration Variables

The following table contains various tags that the Fast Deployment configuration file uses and their description.

**Table 12- List of fast Deployment Variables and their Description**

| Variables         | Description  | Pre-populated / to be modified  |
|-------------------|--|---|
| <cabinet>         | A <code>cabinet</code> subelement is required to have an <code>id</code> attribute which is its reference in the configuration file. A cabinet must also have a <code>cabid</code> subelement which defines the cabinet ID in PM&C.  | Pre-polulated   |
| <enclosure>       | An <code>enclosure</code> subelement is required to have an <code>id</code> attribute which is its reference in the configuration file   | Pre-populated, Onboard-administrator IP to be added by user   |
| <globals>         | A <code>globals</code> definition identifies one or more global variables that are to be re-used within the configuration file.  | ISO image names and paths inside this section have to be updated by user  |
| <hardware>        | A set of cabinets, enclosures, blades and rack-mount servers that represent the hardware provisioned into the PM&C.  | RMS IP/OA IP to be updated  |
| <infrastructures> | An <code>infrastructures</code> definition identifies one or more infrastructure elements targeted for automated deployment.   | Contains a set of tags used to enter infrastructure related data like TVOE host installation, cabinet, enclosures, RMS etc. |
| <interfaces>      | The <code>interfaces</code> element defines the IP addresses and access information that will be used to communicate with the PM&C that is managing the infrastructure.  | To be modified by user  |
| <native>          | The <code>native</code> element defines information used to create application servers on native hardware.   | Contains a set of tags for installing a bare-metal (non-virtualized) NOAMP server.  |
| <profile>         | <code>profile</code> specifies a profile to use for creation of the VM. The <code>profile</code> element includes a <code>name</code> and <code>image</code> subelement.   | To be modified  |
| <rms>             | The <code>rms</code> element specifies a rack-mount server in the infrastrucure and provisions it in PM&C if not already present.  | iLo console's IP, username and password to be updated   |
| <scripts>         | <code>scripts</code> specifies scripts that will be run during the deployment process. Valid script types are <code>presrvapp</code> , <code>postsrvapp</code> and <code>postdeploy</code> .   | Pre-populated   |
| <software>        | Deployable software images that are referenced by the TVOE host definitions and application server definitions.  | Pre-populated   |
| <tpdbridges>      | A <code>tpdbridges</code> element which contains an unlimited number of <code>tpdbridge</code> subelements. Each <code>tpdbridge</code> subelement contains the following subelements. Each <code>tpdbridge</code> subelement has a required <code>id</code> attribute: <ul style="list-style-type: none"> <li>o <code>name</code> which contains the name of the bridge. This is the only required subelement.</li> <li>o <code>interfaces</code> which defines the interfaces in the bridge.</li> <li>o <code>bootproto</code> which can be <code>dhcp</code> or <code>none</code>.</li> <li>o <code>address</code> defines the IP address of the bridge.</li> <li>o <code>netmask</code> defines the network mask for the bridge.</li> <li>o <code>IPv6address</code> with the IPv6 address (including the prefix) for the bridge.</li> <li>o <code>IPv6sec</code> with the IPv6 secure address (including the prefix) for the bridge.</li> <li>o <code>onboot</code> which can be <code>yes</code> or <code>no</code>.</li> <li>o <code>persistent</code> which can be <code>yes</code> or <code>no</code>.</li> </ul> | To be modified by user  |

## Oracle Communications User Data Repository Installation and Configuration Guide

|                 |  |   |
|-----------------|--|---|
|                 | <ul style="list-style-type: none"> <li>o <code>promisc</code> which can be yes or no to control promiscuous mode.</li> <li>o <code>hwaddr</code> which defines the MAC address of the bridge.</li> <li>o <code>MTU</code> with the maximum transmission unit size on the interface.</li> <li>o <code>delay</code> forwarding delay</li> </ul>  |   |
| <tpdinterfaces> | <p><code>tpdinterfaces</code> element which contains an unlimited number of <code>tpdinterface</code> elements. Each <code>tpdinterface</code> subelement contains the following subelements. Each <code>tpdinterface</code> subelement has a required <code>id</code> attribute:</p>  | To be modified by user  |
| <tpdnetworking> | <p>The <code>tpdnetworking</code> subelement describes interfaces and routes that the FDC utility will create on the server. The <code>tpdnetworking</code> element contains the subelements <code>tpdinterfaces</code>, <code>tpdbridges</code> and <code>tpdroutes</code>.</p>   | To be modified by user  |
| <tpdroutes>     | <p><code>tpdroutes</code> element which contains an unlimited number of <code>tpdroute</code> subelements. Each <code>tpdroute</code> subelement contains the following subelements. Each <code>tpdroute</code> subelement has a required <code>id</code> attribute:</p> <ul style="list-style-type: none"> <li>o <code>type</code> which can be default, host or net. This subelement is required.</li> <li>o <code>device</code> specifies the interface used by the route.</li> <li>o <code>address</code> specifies the destination address of the route.</li> <li>o <code>netmask</code> specifies the netmask of the host route.</li> <li>o <code>gateway</code> specifies the gateway for the route.</li> <li>o <code>table</code> specifies the routing table for the route</li> </ul> | To be modified by user  |
| <tvoeguest>     | <p>The <code>tvoeguest</code> element defines information used to create applications servers as TVOE guests. In addition the <code>tvoeguest</code> element has an optional <code>delete</code> attribute used to indicate that the guest should be deleted before it is added</p>  | Pre-populated, but tags under this need modifications like VM profile selection                                 |
| <tvoehost>      | <p>TVOE hosts that will be created on the hardware before application deployment.</p>  | Pre-populated, but tags under need modifications blike <code>tpdnetworking</code> , <code>tpdroutes</code> etc. |

## Appendix X. Contacting My Oracle Support (MOS)

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

Call the CAS main number at **1-800-223-1711** (toll-free in the US), or call the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. When calling, make the selections in the sequence shown below on the Support telephone menu:

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

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

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

### Appendix Y. Locate Product Documentation on the Oracle Help Center Site

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

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