# Oracle® Communications User Data Respository 10.0.1

Installation and Configuration Guide

Release 10.0.1

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# ORACLE

Oracle Communications UDR Initial Installation and Configuration Guide, Release 10.0.1

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See more information on MOS in the Appendix section.

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#### 1.0 INTRODUCTION

#### 1.1 Purpose and Scope

This document describes how to install OCUDR (on HP Proliant hardware) product within a customer network. It makes use of AppWorks 5.7 network installation and is intended to cover the initial network configuration steps for NOAMP, SOAM, and MP servers which includes validation of initial configuration.

This document only describes the OCUDR product SW installation on the HP Proliant Blade or 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 OCUDR cabinet.

#### 1.2 References

- [1] TEKELEC Acronym Guide, MS005077, latest revision
- [2] Site Survey (Domestic US), SS005977, latest revision
- [3] Hardware Verification Plan, VP005629, latest revision
- [4] Platform 6.x Configuration Procedure Reference, 909-2209-001, latest revision
- [5] HP Solutions Firmware Upgrade Pack Release Notes, 795-000-2xx, v2.1.5 (or latest 2.1 version)
- [6] Network Interconnect: UDR 10.0, TR007403, latest revision
- [7] OC UDR 10.0 Base Hardware and Software Installation Procedure, E48809-01, latest revision
- [8] OC UDR 10.0.1 Disaster Recovery Guide, E58585-01, latest revision

#### 1.3 Acronyms

An alphabetized list of acronyms used in the document:

Acronym	Meaning
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
MP	Message Processor
SPR	Subscriber Profile Repository
TPD	Tekelec Platform Distribution (Linux OS)
UDR	User Data Repository
VIP	Virtual IP
VM	Virtual Machine
XMI	External Management Interface
XSI	External Signalling 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.





#### 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 OCUDR topology and network configuration as described in the OCUDR Network Implementation Guide [6].
- 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 (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 [8].

## 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. 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 for assistance before attempting to continue.

#### **OCUDR 10.0.1**

## 2.0 GENERAL DESCRIPTION

This document defines the steps to execute the initial installation of the Next Generation Subscriber Data Management 10.0.1(UDR 10.0.1) application on new HP Proliant Hardware.

UDR 10.0.1 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 and HP BL460 based OCUDR:

- 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 OCUDR installation procedures. Blade installations require no physical connections as installation is carried out through a management server.

Access Alternatives for Application Install

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

Figure 3. DL 380 Layout				
One of the <b>Access Methods</b> shown to the right may be used to initiate and monitor installation.	Method 1)	VGA Monitor and PS2 Keyboard.		
<b>NOTE:</b> <i>Methods 3 &amp; 4 may only be</i> used on an HP DL360 with an iLO that has been previously configured with a	Method 2)	Laptop + KVM2USB Switch. http://www.epiphan.com/products/frame- grabbers/kvm2usb/		
statically assigned IP address. It is not intended for use with a new, out-of- the-box server.	Method 3)	iLO VGA Redirection Window, IE8, Ethernet cable. (See <b>Appendix A</b> )		
	Method 4)	iLO access via SSH, terminal program, Ethernet cable.		

## 2.1.3 Network Topologies

Various Topologies will be supported for this release. C-Class (Normal or Low Capacity) and Normal Capacity RMS Configurations utilize Topologies (1,4) and Low Capacity RMS Configurations utilize Topology 7.. Please refer to [6] for Topology details.

#### 2.1.4 Activity Logging

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

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

## 3.0 INSTALLATION MATRIX

## 3.1 Installing OCUDR on the Customer Network

Installing the OCUDR 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 Appendix Q 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 [6] for more details on the configurations):

Comun Turre						Р	roced	dure I	Numb	er				
5e	rver Type	1	2	3	11	12	13	14	15	16	17	18	19	21
	NOAMP- A	<b>\</b>	×	×	<b>\</b>	×	×	>	×	×	×	×		<b>\</b>
	NOAMP- B	<	×	×	×	<	×	>	×	×	×	×	<	×
	DR NOAMP	>	×	×	×		×	×	>	×	×	×	<b>\</b>	×
	SOAM	×	>	<b>\</b>	×	<b>\</b>	<b>\</b>	×	>	×	×	×	×	×
	МР	×	-	1	×	<b>√</b>	<b>\</b>	×	1	1	1	1	×	×

 Table 2 - OCUDR Installation Matrix for Normal Capacity C-Class Configuration

Low Capacity C-Class Configuration (Topologies 1 and 4 supported , refer to [6] for more details on the configurations :

Comunitation Trans			Procedure Number										
3	berver Type	4	5	11	12	13	14	15	16	17	18	20	21
	NOAMP-A	1	1	1	×	×	-	×	×	×	×	<b>\</b>	1
	NOAMP-B	>	1	×	<b>\</b>	×	>	×	×	×	×		×
	DR NOAMP	>	1	×	<b>\</b>	×	×	-	×	×	×		×
	SOAM	-	1	×	1	1	×	1	×	×	×	×	×
	МР	1	1	×	1	1	×	1	1	1	1	×	×

Table 3 - OCUDR Installation Matrix for Low Capacity C-Class Configuration

Normal Capacity RMS Configuration (Topologies 1 and 4 supported , refer to [6] for more details on the configurations):

0		Procedure Number												
Se	rver Type	6	7	8	11	12	13	14	15	16	17	18	19	21
	NOAMP- A		×	×	>	×	×	>	×	×	×	×		<b>\</b>
	NOAMP- B	<	×	×	×	<	×	1	×	×	×	×	<	×
	DR NOAMP		×	×	×	<b>\</b>	×	×	>	×	×	×	<b>\</b>	×
	SOAM	×	>	>	×	<b>\</b>	>	×	>	×	×	×	×	×
	MP	×	>	>	×	<b>\</b>	>	×	<b>\</b>	<b>\</b>	<b>\</b>	>	×	×

Table 4 - OCUDR Installation Matrix for Normal Capacity RMS Configuration

0				Procedure Number									
2	berver Type	9	10	11	12	13	14	15	16	17	18	20	21
	NOAMP-A	<b>\</b>	1	1	<b>×</b>	×	1	×	×	×	×	<b>\</b>	1
	NOAMP-B	>		<b>×</b>		×	>	×	×	×	×		×
	DR NOAMP	>	<b>√</b>	<b>×</b>		×	×	>	×	×	×	<b>\</b>	×
	SOAM	>	<b>√</b>	<b>×</b>		>	×	>	×	×	×	×	×
	МР	1	1	<b>×</b>		1	×	1	1	1	1	×	×

Low Capacity RMS Configuration (Topology 7 supported, refer to [6] for more details on the configurations) :

 Table 5 - OCUDR Installation Matrix for Low Capacity RMS Configuration

## 3.2 UDR Installation List of Procedures

## **Normal Capacity C-Class Configuration**

Procedure No :	Title :	
1	Install NOAMP Servers (NO and DR Network Elements)	16
2	Install SOAM / MP Host Servers (SO Network Elements)	21
3	Create, IPM and Install Application on all Virtual Machines (SO Network Elements)	23
11	Configuring NOAMP-A Server (1st NOAMP site only)	83
12	Create Configuration for Remaining Servers (All Sites)	98
13	Configure XSI Networks (All SOAM Sites)	113
14	OAM Pairing for the Primary NOAMP Servers (1st NOAMP site only)	116
15		131
16	Configuring MP Server Groups (All SOAM sites)	147
17	Configure MP Signaling Interfaces (All SOAM Sites)	158
18	Configure SPR Application on MP (All SOAM Sites)	165
19	Configure NOAMP Signaling Interfaces (All NOAM Sites)	170
	NOTE: Optional and should only be executed if ComAgent over XSI is desired	
21	Configure ComAgent Service on Signaling Network	187
	NOTE: Optional and should only be executed if ComAgent over XSI is desired	

Table 6 - OCUDR Installation: List of Procedures for Normal Capacity C-Class Configuration

## Low Capacity C-Class Configuration

Procedure No :	Title :	Page No :
4	Install NOAMP / SOAM / MP Servers	35
5		37
	Create, IPM and Install Application on all Virtual Machines	
11	Configuring NOAMP-A Server (1st NOAMP site only)	83
12	Create Configuration for Remaining Servers (All Sites)	98
13	Configure XSI Networks (All SOAM Sites)	113
14	OAM Pairing for the Primary NOAMP Servers (1st NOAMP site only)	116
15		131
16	Configuring MP Server Groups (All SOAM sites)	147
17	Configure MP Signaling Interfaces (All SOAM Sites)	158
18	Configure SPR Application on MP (All SOAM Sites)	165
20	Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity RMS or Low Capacity C-Class)	180
21	Configure ComAgent Service on Signaling Network	187
	NOTE: Optional and should only be executed if ComAgent over XSI is desired	

 Table 7 - OCUDR Installation: List of Procedures for Low Capacity C-Class Configuration

Procedure No :	Title :	Page No :
6	Install NOAMP Servers (NO and DR Network Elements)	49
7	Install SOAM / MP Host Servers (SO Network Elements)	54
8	Create, IPM and Install Application on all Virtual Machines (SO Network Elements)	56
11	Configuring NOAMP-A Server (1st NOAMP site only)	83
12	Create Configuration for Remaining Servers (All Sites)	98
13	Configure XSI Networks (All SOAM Sites)	113
14	OAM Pairing for the Primary NOAMP Servers (1st NOAMP site only)	116
15		131
16	Configuring MP Server Groups (All SOAM sites)	147
17	Configure MP Signaling Interfaces (All SOAM Sites)	158
18	Configure SPR Application on MP (All SOAM Sites)	165
19	Configure NOAMP Signaling Interfaces (All NOAM Sites)	170
	NOTE: Optional and should only be executed if ComAgent over XSI is desired	
21	Configure ComAgent Service on Signaling Network	187
	NOTE: Optional and should only be executed if ComAgent over XSI is desired	

## **Normal Capacity RMS Configuration**

 Table 8 - OCUDR Installation: List of Procedures for Normal Capacity RMS Configuration

## Low Capacity RMS Configuration

Procedure No :	Title :	Page No :
9	Install NOAMP / SOAM / MP Servers	35
10		37
	Create, IPM and Install Application on all Virtual Machines	
11	Configuring NOAMP-A Server (1st NOAMP site only)	83
12	Create Configuration for Remaining Servers (All Sites)	98
13	Configure XSI Networks (All SOAM Sites)	113
14	OAM Pairing for the Primary NOAMP Servers (1st NOAMP site only)	116
15		131
16	Configuring MP Server Groups (All SOAM sites)	147
17	Configure MP Signaling Interfaces (All SOAM Sites)	158
18	Configure SPR Application on MP (All SOAM Sites)	165
20	Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity RMS or Low Capacity C-Class)	180
21	Configure ComAgent Service on Signaling Network	187
	NOTE: Optional and should only be executed if ComAgent over XSI is desired	

 Table 9 - OCUDR Installation: List of Procedures for Low Capacity RMS Configuration

#### 4.0 NORMAL CAPACITY C-CLASS CONFIGURATION SOFTWARE INSTALLATION PROCEDURE

The user should confirm that the server has been verified through the Hardware Verification Plan [3] before beginning this procedure. ProLiantBL460Gen8 and ProLiantBL460Gen8+ are supported for this procedure.

## 4.1 Install NOAMP Servers (NO and DR Network Elements)

This procedure will install Tekelec Platform Distribution (TPD) on the NO network elements.

#### Needed material:

• TPD Media

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

Step	Procedure	Result
1.	Access the HP server's console.	Connect to the server's console using one of the access methods described in Section 2.1.2.
2.	Verify the type of server hardware	<pre># hardwareInfo   grep Hardware Hardware ID: ProLiantBL460Gen8 or ProLiantBL460Gen8+</pre>
3.	Update firmware	Follow steps defined in <b>Appendix D.1</b> HP Blade Firmware Upgrade ( <i>BL460 hardware</i> ) to update firmware.
4.	Update BIOS settings	Follow steps defined in <b>Appendix D.2 BIOS Settings</b> to update BIOS settings.
5.	Add images to management server.	Follow <b>Appendix J Adding Software Images to PM&amp;C Server</b> to add TPD, TVOE and OCUDR software images.
6.	Clean the Disk Array	<ul> <li>Note: Execute only if previous install on the Blade.</li> <li>Follow steps defined in</li> <li>Appendix M.2 Removing Blade Disk Array Configuration (Sidecar)</li> </ul>
		to clean the Disk Array

Step	Procedure	Result
7.	Install Operating System (TPD)	Follow steps defined in
		Appendix F.2 Installing Operating Systems with PM&C (BL460 hardware)
		to install TPD software.
Note: servers	The next five steps a s, <b>Section 0</b>	are only for the NOAMP-A and DR NOAMP-A servers. Once these steps are completed for both
Install	SOAM / MP Host S	Servers (SO Network Elements) may be run in parallel with this procedure.
8.	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> .
9.	Log into the server console as the " <b>root</b> "	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64
	user.	hostname1260476221 login: root
		Password: <root_password></root_password>
10.	Configure a temporary XMI	Follow steps defined in
	IP so NTP can access the routed network.	Appendix B.1 Creating Temporary External XMI IP Address
		to define a temporary network.
		<i>Note:</i> The permanent IP assignment for this server will be made when its TKLCConfigData.sh script is applied later in this installation.
11.	Enter Platform configuration	Enter platform configuration by running the following:
	menu	# su - platcfg

#### Procedure 1: Install NOAMP Servers (NO and DR Network Elements)

Step	Procedure	Result
12.	For NOAMP-A only: Enter Platform configuration menu	<ul> <li>1. Navigate to Network Configuration &gt; NTP.</li> <li>Network Configuration Menu Network Interfaces Network Bridges Configure Network Resolv</li> <li>2. Select Edit, then "Add a New NTP Server."</li> <li>3. Enter the IP Address of the customer provided NTP server.</li> <li>Add an NTP Server</li> <li>Add an NTP Server</li> <li>Address:</li> <li>Optional):</li> <li>Optional):</li> <li>Optional):</li> <li>Optional):</li> <li>Select OK, then "Exit."</li> <li>5. Select Yes to restart the ntp Service.</li> <li>Modified an entry in the ntp.conf file:</li> <li>Bo you want to restart the ntp Service?</li> <li>For the ntp Service.</li> <li>6. Exit platefg.</li> </ul>
Note:	The remainder	of this procedure is for all <b>NOAMP</b> servers.
13.	Configure Disk Array	Follow steps defined in
		Appendix E.2 Configuring Blade Disk Array (NO Network Element Servers with Sidecar)
		to configure the disk array.

Procedure 1: Install NOAMP Servers (NO and DR Network Elements)

## Procedure 1: Install NOAMP Servers (NO and DR Network Elements)

Step	Procedure	Result
14.	(Optional)	For C-Class Blade, Netbackup enabled systems equiped with <i>two</i> Pass Thru Modules:
	Configure NetBackup Dedicated Interface	<pre># netAdm adddevice=bond2type=Bondingmode=active-backup \onboot=yesbootproto=nonebondInterfaces="eth21,eth22" \address=<netbackup_ip>netmask=<netbackup_netmask></netbackup_netmask></netbackup_ip></pre>
	(Only deployments with Net Backup) Dual Pass-Thru Modules	<pre># netAdm addroute=netdevice=bond2 \address=<netbackup_network_address> \netmask=<netbackup_network_netmask> \gateway=<netbackup_network_gateway_ip> [OPTIONAL] If this installation is using jumbo frames, set the ethernet interface MTU to the desired jumbo frame size:</netbackup_network_gateway_ip></netbackup_network_netmask></netbackup_network_address></pre>
		<pre># netAdm setdevice=bond2MTU=<netbackup_mtu_size></netbackup_mtu_size></pre>
15.	(Optional)	For c-Class Blade, Netbackup enabled systems equiped with <i>a single</i> Pass Thru Module: :
	Configure Second NetBackup Interface	For Blade systems with a single Pass Thru Module, <backup_device> will be:eth21 # netAdm setdevice=<backup_device>slave=noonboot=yes \ address=<netbackup_ip>netmask=<netbackup_netmask></netbackup_netmask></netbackup_ip></backup_device></backup_device>
	(Only deployments with Net Backup) Single Pass-Thru Modules and RMS	<pre># netAdm addroute=netdevice=<backup_device> \address=<netbackup_network_address> \netmask=<netbackup_network_netmask> \gateway=<netbackup_network_gateway_ip></netbackup_network_gateway_ip></netbackup_network_netmask></netbackup_network_address></backup_device></pre>
		[OPTIONAL] If this installation is using jumbo frames, set the ethernet interface MTU to the desired jumbo frame size:
		<pre># netAdm setdevice=<backup_device>MTU=<netbackup_mtu_size></netbackup_mtu_size></backup_device></pre>
16.	Install OCUDR application software.	Follow steps defined in <b>Appendix G.2</b> Installing OCUDR Application with PM&C ( <i>BL460 hardware</i> )
		to install OCUDR software.
17.	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> .

Step	Procedure	Result	
18.	Verify successful upgrade. Command will	<pre># verifyUpgrade</pre>	
	generate no output if no issues are found.	<b>NOTE</b> : This command should return no output on a healthy system. If any errors are reported, please contact My Oracle Support MOS for assistance.	
19.	Change directory	# cd /var/TKLC/backout	
20.	Perform upgrade acceptance.	# ./accept	
21.	Press the ' <b>q</b> ' key to quit screen session wrapper from upgrade acceptance.	Press q to destroy or to resurrect window Accepting Upgrade Executing common accept tasks Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Cleaning Upgrade Accept/Reject alarm. Cleaning up RPM config backup files Checking / Upgrade Accept/Reject alarm. Cleaning up RPM config backup files Checking / boot Checking / tmp Checking /var Checking /var Checking /var/TKLC Checking /var/TKLC/appw/logs/Process Checking /var/TKLC/appw/logs/Security Checking /var/TKLC/db/filemgmt Checking /var/TKLC/db/filemgmt Checking /var/TKLC/rundb Starting cleanup of RCS repository. INFO: Removing '/etc/my.cnf' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository Screen session: use 'screen -x upgrade' to reconnect	
	THIS PROCEDURE HAS BEEN COMPLETED		

#### Procedure 1: Install NOAMP Servers (NO and DR Network Elements)

#### 4.2 Install SOAM / MP Host Servers (SO Network Elements)

This procedure will install and configure the operating system on hardware that will host SOAM and MP VM Guests. A Normal Capacity C-Class system has two blades at a site that utilize the following procedure. ProLiantBL460Gen8 and ProLiantBL460Gen8+ are supported for this procedure.

#### **Requirements:**

• Procedure 1: Install NOAMP Servers (NO and DR Network Elements) must be complete

#### **Needed** material:

• TVOE Media

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

#### Procedure 2: Install SOAM / MP Servers (SO Network Elements)

Step	Procedure	Result
1.	Access the HP server's console.	Connect to the HP server's console using one of the access methods described in Section 2.1.2.
2.	Check the type of server hardware	# hardwareInfo   grep Hardware Hardware ID: ProLiantDL380Gen8 or ProLiantBL460Gen8+
3.	Update firmware	Follow steps defined in <b>Appendix D.1</b> HP Blade Firmware Upgrade ( <i>BL460 hardware</i> ) to update firmware.
4.	Update BIOS settings	Follow steps defined in <b>Appendix D.2 BIOS Settings</b> to update BIOS settings.
5.	Add image to management server.	Follow Appendix J Adding Software Images to PM&C Server to add TVOE image.
6.	Install Operating System (TVOE)	Follow steps defined in <b>Appendix F.2</b> Installing Operating Systems with PM&C ( <i>BL460 hardware</i> )
		to install TVOE software.

Step	Procedure	Result
7.	Configure TVOE network	Follow steps defined in
		Appendix L.1 Configure TVOE Network for Normal or Low Capacity C-Class Configurations
		to configure TVOE network.
THIS PROCEDURE HAS BEEN COMPLETED		

## Procedure 2: Install SOAM / MP Servers (SO Network Elements)

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

This procedure will create Virtual Machines (VMs) for SO and MP servers, install the TPD Operating System on each VM, and install the OCUDR application on each VM. It details the create/IPM/install for a single VM and should be repeated for every VM. A normal capacity C-Class system has two blades at a site that utilize the following procedure.

#### **Requirements:**

• Procedure 2: Install SOAM / MP Host Servers (SO Network Elements) has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

#### Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
	Blade deployments enclosure for this C	s (ex: <b>ProLiantBL460cGen8</b> ) will use only one IP to access the PM&C that manages the entire DCUDR site.
1.	Add image to management server.	<ul> <li>Follow Appendix J Adding Software Images to PM&amp;C Server to add TPD and OCUDR software images to this PM&amp;C repository.</li> <li>Note: Images may already exist if this is a blade deployment, with SOAM/MP blades controled by the same PM&amp;C as the NOAMP.</li> </ul>
2.	PM&C GUI:	Open web browser and enter: http:// <pmac_management_network_ip></pmac_management_network_ip>
2.	Login to PM&C GUI	Login as pmacadmin user.          Excellence System Login       Tue May 14 10:15:12 2013 EDT         Image: System Login       Tue May 14 10:15:12 2013 EDT         Image: System Login       Tue May 14 10:15:12 2013 EDT

Step	Procedure	Result					
3.	PM&C GUI: Navigate to VM Management menu	Navigate to the VM Management menu					
4.	PM&C GUI: Select the desired Server and create the VM Guest	Select the TVOE blade or rack mounted 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.         Virtual Machine Management         Image: S01 Bay: 16         Image: S01 Bay: 26         Image: S01 Bay: 27         Image: S01 Bay: 28         Image: S01 Bay: 27         Image: S01 Bay: 28         Image:					

Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result	
5.	PM&C GUI:	A "Create VM Guest" window is displayed that is similar to the below:	
	Click on the Import Profile dialogue buttont	Create VM Guest         Name         Host Ene: 501 Bay: 3F •         On •         Winte         Num vCPUs 1 \$ •         Winte         Winte <td col<="" td=""></td>	

Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result					
6.	PM&C GUI: Select the desired ISO/Profile	Select the desired <b>ISO/Profile</b> . - If creating a VM for a SOAM server, use the " <b>UDR_SO</b> " profile. - If creating a VM for an MP, use the " <b>UDR_MP</b> " profile.					
	value	ISO/Profile:       872-2553-101-10.0.0_10.1.0-UDR-x86_64 => UDR_SO         Num CPUs:       872-2553-101-10.0.0_10.1.0-UDR-x86_64 => UDR_SO         Virtual Disks:       Prim Size (MB)       Pool         Vguests       204800       vgguests					
		NICs: Bridge TPD Dev control control imi imi manaoeme xmi Select Profile					
		<ul> <li>Click "Select Profile" button.</li> <li>Check-off the associated Check Box as addition is completed for the VM.</li> </ul>					
		□ SOAM-A □ SOAM-B □ MP-1 □ MP-2 □ MP-3 □ MP-4					

Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result					
7.	PM&C GUI:	The default <b>Virtual NICs</b> are configured for a deployment with two XSI networks. If your depoloyment has only a single <b>XSI</b> network, select the row for " <b>xsi2</b> " by clicking on it then click the <b>Delete</b> button:					
	Customize the <b>NICs</b> list to suit your deployment						
		Virtual NICs Add Delete					
		Host Bridge Guest Dev Name					
		xmi xmi 🔺					
		xsi1 xsi1					
		xsi2 xsi2					
		- If your deployment has more than two <b>XSI</b> networks, click the <b>Add</b> button, select them from the Host Bridge drop box and type in the same name into <b>Guest Dev Name</b> .					
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .					
		SOAM-A SOAM-B					
		□ MP-1 □ MP-2 □ MP-3 □ MP-4					

#### Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result			
8.	PM&C GUI:	A "Create VM Guest" window is displayed that is similar to the below			
	Override the VM Guest <b>Name</b> to	Virtual Machine Management			
	Guest <b>Name</b> to make it unique for the site	Tasks       Create VM Guest         VM Entities       C         ● Enc: 501 Bay: 13F       Create VM Guest         ● Enc: 501 Bay: 6F       Name: SOA         ● Enc: 501 Bay: 1F       Name: SOA         ● Enc: 501 Bay: 9F       BL908050109-mp         ● BL908050109-so       VM Info         ● BL908050109-so       VM INFo         ● BL908050109-so       VM INFo         ● BL908050105-so-a       Enc: 501 Bay: 14F         ● BL908050105-so-a       Enc: 501 Bay: 14F         ● BL908050114-mp-3       Host Pool       Host Vol Name       Guest Dev Name         ● BL908050114-mp-3       BL908050114-so-b       Virtual NICs       Add       Delete         ● pmac-xgsdm502       Virtual NICs       Add       Delete			
		Override the Name field to something like: SOA, SOB, MP1 or MP2, etc. (Don't use hyphens in the name). You could also include a location within the Name value such as SOMRSVNCA. (This will not become the ultimate hostname. It is just an internal tag for the VM host manager.)         Click Create button         • Record the Site VM Guest Name of each VM that is added in the space provided below:         • Check-off the associated Check Box as addition is completed for the VM.         □ SOAM-A:       □ SOAM-B:         □ MP-1:       □ MP-2:         □ MP-3:       □ MP-4:			

Procedure 3: Create, IPM and Install Application on all Virtual Machines

<b>Procedure 3:</b> Create, IPW and Install Application on all virtual Machine
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Step	Procedure	Result								
٥	PM&C GUI:	🖬 🚨 Main Menu	Backo	round Task Mo	nitorina	C.	-CCCCC	3		
J.	Select	Software	Filter	-		0				
		– 📑 VM Management	ID	Task	Target		Status	Running Time	Start Time	Progress
	<u>Main Menu</u> → Task	<ul> <li>Administration</li> <li>Status and Manage</li> </ul>	1 103	VirtAction: Create	Host IP:	64:ee0d	Create initiated	0:00:00	2015-01-16	8%
	Monitoring	<ul> <li>Task Monitoring</li> <li>Welp</li> </ul>	2 402		Guest <u>pc</u>	000716-no	0	DODUE.	2015-01-16	1005
		E Logout	102	Add snage			DONG: 0DR-10.2.0_12.5.0-880_04	0.00.15	05:35:49	100%
	…as shown on the right.	<ul> <li>Hardware</li> <li>Software</li> </ul>	Hardware Background Task Monitoring							
	0	Management	Filter	•						
		Administration	D	Task	Target Host IP:		Status	Running Time	Start Time	Progress
		Status and Manage     Task Monitoring	103	VirtAction: Create	Guest pcs	54:ee0d 1000716-no	Handling guest power	0:00:04	05:42:49	425
		- 🧶 Help - 😝 Logout	102	Add Image			Done: UDR-10.2.0_12.3.0-x86_64	0:00:15	2015-01-16 05:35:49	100%
		🖬 🖳 Main Menu 💼 🧰 Hardware	Backg	round Task Mo	nitoring	í				
		Software	Filter	•						
		Storage	ID	Task	Target		Status	Running Time	Start Time	Progress
		Status and Manage      Task Monitoring	103	VirtAction: Create	Host IP: :9fff:fe Guest: pc9	64:ee0d 1000716-no	Guest creation completed (pc9000716-no)	0:01:00	2015-01-16 05:42:49	100%
		– 😻 Help – 🛃 Logout	102	Add Image			Done: UDR-10.2.0_12.3.0-x86_64	0:00:15	2015-01-16 05:35:49	100%
		Check-off the asso     SOAM-A		ed Check Bo SOAM-B	ox as a	ddition i	s completed for the	VM.		
				MP-2		MP-3				
10.	PM&C GUI:	Verify that the Virtual	Mac	hine success	fully c	reated.				
	Verify that	Tasks								
	Successfully	ID Task	Та	irget		Status		Start Time	Progr	ess
	completes.	13 VirtAction: Create	RI Gi	MS: <u>pc9040833-r</u> uest: <u>NO-A</u>	<u>10-a</u>	Guest crea	ation completed (NO-A)	2012-07-06 19:05:02	100	%
	The user should see a screen similar to the one on the right with <b>Progress</b> value of <b>100%</b> .	Check-off the asso     SOAM-A		ed Check Bo SOAM-B	<b>)x</b> as a	ddition i	s completed for the	VM.		-
		[_] MP-1		MP-2		MP-3	MP-4			
	Note: The steps al next step. This wa	bove may be completed by you may install and up	ove may be completed for each VM Guest that this PM&C administers before proceeding on to the you may install and upgrade multiple VM Guests in parallel.							

Step	Procedure	Result				
11.	Install Operating System (TPD)	ollow steps defined in				
		Appendix F.2 Installing Operating Systems with PM&C				
		to install TPD software on VM Guests.				
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .				
		□ SOAM-A □ SOAM-B				
		□ MP-1 □ MP-2 □ MP-3 □ MP-4				

#### Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result				
12.	PM&C GUI: Get and record	Navigate to the VM Management menu Select the VM Guest Name from the VM Entities list, and click "Network" tab				
	address of VM Guest	Virtual Machine Management				
		VM Entities       Close       View VM Guest         I I Enc: 501 Bay: 13F       I Enc: 501 Bay: 6F       I Enc: 501 Bay: 6F         I I Enc: 501 Bay: 1F       I Enc: 501 Bay: 3F       View VM Guest         I I I Enc: 501 Bay: 3F       View VM Guest				
		Click 101 Bay: 3F       Winto       Software       Network       Jedia         Image: Bit 908050103-so       Port       IP Addr       Admin       Oper         Image: Bit 908050103-so       Port       If 680:00:00:b5:efffe61:83db       Up       Up       Up         Image: Bit 908050103-so       Port       10:240.80:175       Up       Up <t< td=""></t<>				
		□ MP-3: □ MP-4:				

Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result				
13.	Install OCUDR application software.	Follow steps defined in   Appendix G.2 Installing OCUDR Application with PM&C   to install OCUDR software.   • Check-off the associated Check Box as addition is completed for the VM.   □ SOAM-A				
	D					
14.	Repeat Steps 4 - 1:	3 for each Virtual Machine to install its operating system and application software.				
15.	Perform upgrade acceptance.	Follow steps defined in <b>Appendix H</b> Accept Application Installation on PM&C Managed Servers to accept upgrade.				
16.	Access the <b>NOAMP</b> server's console.	Connect to the server's console using one of the access methods described in <i>Section 2.1.2</i> .				
17.	Log into the tvoe server console as the " <b>root</b> " user.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64 hostname1260476221 login: root Password: <root password=""></root>				
18.	NOAMP: Transfer file to TVOE Host	<pre># scp /var/TKLC/db/filemgmt/udrInitConfig.sh \     admusr@<tvoe_host_name>:/var/tmp admusr@<tvoe_host_name>'s password: <admusr_password></admusr_password></tvoe_host_name></tvoe_host_name></pre>				
		<ul> <li>Check-off the associated Check Box as addition is completed for the TVOE host.</li> <li>TVOE Host ( SOAM-A / MP-1 / MP-2 )</li> <li>TVOE Host ( SOAM-B / MP-3 / MP-4 )</li> </ul>				

Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
19.	Login to TVOE Host: 1) SSH to server.	<pre># ssh admusr@<tvoe_host_name> admusr@<tvoe_host_name>'s password: <admusr_password></admusr_password></tvoe_host_name></tvoe_host_name></pre>
	2) Log into the server as the "admusr" user	<ul> <li>Check-off the associated Check Box as addition is completed for the TVOE host.</li> <li>TVOE Host ( SOAM-A / MP-1 / MP-2 )</li> <li>TVOE Host ( SOAM-B / MP-3 / MP-4 )</li> </ul>
20.	TVOE host: Switch to root user.	<pre>[admusr@hostname1326744539 ~]\$ su - password: <root_password>  • Check-off the associated Check Box as addition is completed for the TVOE host.  □ TVOE Host ( SOAM-A / MP-1 / MP-2 )  □ TVOE Host ( SOAM-B / MP-3 / MP-4 )</root_password></pre>
21.	TVOE host: Change directory.	<ul> <li># cd /var/tmp</li> <li>Check-off the associated Check Box as addition is completed for the TVOE host.</li> <li>TVOE Host ( SOAM-A / MP-1 / MP-2 )</li> <li>TVOE Host ( SOAM-B / MP-3 / MP-4 )</li> </ul>
22.	TVOE host: Update script permissions.	<ul> <li># chmod 555 udrInitConfig.sh</li> <li>Check-off the associated Check Box as addition is completed for the TVOE host.</li> <li>TVOE Host ( SOAM-A / MP-1 / MP-2 )</li> <li>TVOE Host ( SOAM-B / MP-3 / MP-4 )</li> </ul>

#### Procedure 3: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
23.	TVOE host:	# ./udrInitConfig.sh
	Run configuration script as root.	Verify no failures are reported. A trace to display the settings for all VM Guests on this server should be shown in output.
		In case of failures, save the log file /var/TKLC/log/udrVMCfg/udrInitConfig.log and contact My Oracle Support (MOS) for assistance.
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.
		TVOE Host ( SOAM-A / MP-1 / MP-2 )
		TVOE Host ( SOAM-B / MP-3 / MP-4 )
24.	TVOE host:	# init 6
	Reboot the	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.
	server.	TVOE Host ( SOAM-A / MP-1 / MP-2 )
		TVOE Host ( SOAM-B / MP-3 / MP-4 )
		THIS PROCEDURE HAS BEEN COMPLETED

Procedure 3: Create, IPM and Install Application on all Virtual Machines

#### 5.0 LOW CAPACITY C-CLASS SOFTWARE INSTALLATION PROCEDURE

The user should confirm that the server has been verified through the Hardware Verification Plan [3] before beginning this procedure. ProLiantBL460Gen8 or ProLiantBL460Gen8+ are supported for this procedure.

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

#### • 2 server per site system

This includes all OCUDR 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 georedundant deployment, with 2 servers at each site.

#### 5.1 Install NOAMP / SOAM / MP Servers

This procedure will install and configure the operating system on hardware that will host NOAMP, SOAM and MP VM Guests. ProLiantBL460Gen8 and ProLiantBL460Gen8+ are supported for this procedure.

#### Needed material:

• TVOE Media

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

#### Procedure 4: Install NOAMP / SOAM / MP Servers

Step	Procedure	Result
1.	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.	Verify the type of server hardware	# hardwareInfo   grep Hardware Hardware ID: ProLiantBL460Gen8 or ProLiantBL460Gen8+
3.	Update firmware	Follow steps defined in <b>Appendix D.1</b> HP Blade Firmware Upgrade ( <i>BL460 hardware</i> ) to update firmware.
4.	Update BIOS settings	Follow steps defined in <b>Appendix D.2 BIOS Settings</b> to update BIOS settings.
5.	Add image to management server.	Follow Appendix J Adding Software Images to PM&C Server to add TVOE image.

#### Procedure 4: Install NOAMP / SOAM / MP Servers

Step	Procedure	Result	
6.	Clean the Disk	Note: Execute only if previous install on the Blade.	
	Апау	Follow steps defined in	
		Appendix M.2 Removing Blade Disk Array Configuration (Sidecar)	
		to clean the Disk Array	
7.	Install Operating	Follow steps defined in	
	System (TVOE)		
		Appendix F.2 Installing Operating Systems with PM&C ( <i>BL460 hardware</i> )	
		to install TVOE software.	
8.	Configure TVOE network	Follow steps defined in	
		Appendix L.1 Configure TVOE Network for Normal or Low Capacity C-Class Configurations	
		to configure TVOE network.	
9.	Configure Disk Arrav	Follow steps defined in	
	, may	Appendix E.2 Configuring Blade Disk Array (NO Network Element Servers with Sidecar)	
		to configure the disk array.	
10	Configure a	a. Create a file names as "configStorageBlade" through vi command.	
	pool	[root@BL908050101-tvoe ~]# <b>vi configStorageBlade</b>	
		Add the line below in the file	
		vgname="stripePool_vg"members="sdb"virtstoragepool	
		b. Create storage pool	
		[root@BL908050101-type ~1# /usr/TKLC/plat/sbin/storageMgr	
		configStorageBlade	
		c. Verify pool is listed below	
		[root@BL908050101-tvoe ~]# virsh pool-list	
		Name State Autostart	
		stripePool_vg active yes	
		vgguests active yes	
THIS PROCEDURE HAS BEEN COMPLETED			
# 5.2 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 OCUDR application on each VM. It details the create/IPM/install for a single VM and should be repeated for every VM. A Low capacity C-Class blade is configured with 1 NOAMP, 1 SOAM and 1 MP.

#### **Requirements:**

#### • Procedure 4: Install NOAMP / SOAM / MP Servers has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

<b>I I OCCULICE J.</b> CIERCE, IL IVI ALLA ILISCALI ADDIICALION ON ALL VILLAI MACHINE	Procedure 5:	Create.	IPM and	Install	Application (	on all	Virtual Machines
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Step	Procedure	Result		
	• Blade deployn enclosure for t	nents (ex: <b>ProLiantBL460cGen8</b> ) will use only one IP to access the PM&C that manages the entire his OCUDR site.		
1.	Add image to management server.	Follow <b>Appendix J Adding Software Images to PM&amp;C Server</b> to add <b>TPD</b> and OCUDR software images to this PM&C repository. Note: Images may already exist if this is a blade deployment, with SOAM/MP blades controled by the same PM&C as the NOAMP.		
2.	PM&C GUI: Login to PM&C GUI	Open web browser and enter: http:// <pmac_management_network_ip> Login as pmacadmin user.</pmac_management_network_ip>		

Step	Procedure	Result			
3.	PM&C GUI: Navigate to VM Management menu	Navigate to the VM Management menu   Main Menu   Hardware   Software   VM Management   Storage   Administration   Task Monitoring   Logout			
4.	PM&C GUI: Select the desired Server and create the VM Guest	Select the TVOE blade 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.         Virtual Machine Management         Tasks         View VM Hots         Penci S01 Bay: 167         View S01 Bay: 167         Views Network         Memory         Note: S01 Bay: 167         Views Network         Note: S01 Bay: 167         Bridges         Views Network         Note: S01 Bay: 167         Bridges         Views Network         Note: S01 Bay: 167         Views Network         Network         Note: S01 Bay: 167         Cick Create Guest.         Other A      <			

Step	Procedure	Result
5.	PM&C GUI:	A "Create VM Guest" window is displayed that is similar to the below:
	Click on the Import Profile dialogue button	Virtual Machine Management
		VM Entities         Create VM Guest           Image: Solid Bay: 13F         Name:           Image: Solid Bay: 6F         Host: Enc: 501 Bay: 16F           Image: Solid Bay: 17F         VM Info
		Image: Solution of the state of the sta
		Virtual Disks Add Prim Size (MB) Host Pool Host Vol Name Guest Dev Name 12288 vgguests
		Virtual NICs Add Delete Host Bridge Guest Dev Name
		Create Import Profile
		Click "Import Profile" button.
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .
		□ NOAMP-A □ NOAMP-B □ SOAM-A □ SOAM-B
		□ MP-1 □ MP-2

Procedure 5: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
6.	PM&C GUI: Select the desired ISO/Profile value	Select the desired <b>ISO/Profile</b> . - If creating a VM for a NOAMP server, use the " <b>UDR_NO_LowCapacity_64GB</b> " profile. - If creating a VM for a SOAM server, use the " <b>UDR_SO_LowCapacity_64GB</b> " profile. - If creating a VM for an MP, use the " <b>UDR_MP_LowCapacity_64GB</b> " profile.
		Import Profile 🛞
		ISO/Profile: UDR-10.2.0_12.3.0-x86_64 => UDR_NO_LowCapacity_64G
		Num CPUs:14 Memory (MBs):131072
		Virtual Disks: Prim Size (MB) Pool TPD Dev
		✓ 409600 vgguests
		839680 stripePool_vg_pool_vg
		NICs:       Bridge       TPD Dev         control       control         imi       imi         xmi       xmi         Select Profile       Select Profile" button.         Click "Select Profile" button.         Check-off the associated Check Box as addition is completed for the VM.         NOAMP-A       NOAMP-B       SOAM-A         MP-1       MP-2

Step	Procedure	Result		
7.	PM&C GUI: Customize the NICs list to suit your deployment	<ul> <li>The default Virtual NICs are configured for a deployment with one XSI network (for NOAMPs) or two XSI networks (for MPs).</li> <li>If your depoloyment has only a single XSI network, select the row for "xsi2" (if it's present) by clicking on it then click the Delete button:</li> </ul>		
		Virtual NICs       Add Delete         Host Bridge       Guest Dev Name         xmi       xmi         xsi1       xsi1         xsi2       si2         •       If your deployment has more than two XSI networks, click the Add button, select them from the Host Bridge drop box and type in the same name into Guest Dev Name.         •       Check-off the associated Check Box as addition is completed for the VM.         •       NOAMP-A       NOAMP-B       SOAM-A         MP-1       MP-2		

Step	Procedure	Result
8.	PM&C GUI:	A "Create VM Guest" window is displayed that is similar to the below
	Override the VM Guest <b>Name</b> to make it unique for the site	Virtual Machine Management
		VM Entities       Create VM Guest            • ● Enc: 501 Bay: 13F          • ● Enc: 501 Bay: 14F            ● ● Enc: 501 Bay: 3F          • ● Enc: 501 Bay: 14F            ● Enc: 501 Bay: 14F          • ● Intical Disks             ● Enc: 501 Bay: 16F          • ● Intical Disks             ● Enc: 501 Bay: 16F            ● Enc: 501 Bay: 16F            ● Enc: 501 Bay: 16F            ● Intical Disks                 ● Intical Disks             ● Intical Disks             ● Intical Disks             ● Intical Disks
		Override the <b>Name</b> field to something like: NOA, NOB, SOA, SOB, MP1 or MP2, etc. (Don't use hyphens in the name). You could also include a location within the Name value such as SOMRSVNCA. ( <b>This will not become the ultimate hostname. It is just an internal tag for the VM host manager.</b> )
		Click Create button
		<ul> <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>
		NOAMP-A       NOAMP-B         SOAM-A:       SOAM-B:         MP-1:       MP-2:

Step	Procedure	Result					
9.	PM&C GUI:	Background Task Monitoring					
	Select	Filter					
	<u>Main Menu</u> ➔ Task	ID         Task         Target         Status         Running Time         Start Time         Progress           10         VirtAction: Create         Enc:501 Bay:16F         Create creation completed (MD4)         0:00:05         2015-02-16         400%					
	Monitoring	Guest: <u>MP1</u> Guest: <u>MP1</u> Guest: <u>MP1</u> (1057) 10:55:59 100%					
	as shown on the right.	Check-off the associated Check Box as addition is completed for the VM.					
		│ NOAMP-A │ NOAMP-B │ SOAM-A │ SOAM-B					
		□ MP-1 □ MP-2					
10.	PM&C GUI:	Verify that the Virtual Machine successfully created.					
	Verify that Create VM task	Tasks					
	successfully completes.	ID     Task     Target     Status     Start Time     Progress       12     Virthetion Croate     RMS: pc9040833-no-a     Croate creation completed (NO A)     2012-07-06     100%					
	The upper abouild	Guest: NO-A Guest Creation Completed (NO-A) 19:05:02					
	see a screen	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .					
	similar to the one on the right with <b>Progress</b> value of <b>100%</b> .						
		□ MP-1 □ MP-2					
	Note: The steps al next step. This wa two blades at a site	above may be completed for each VM Guest that this PM&C administers before proceeding on to the ay you may install and upgrade multiple VM Guests in parallel. A low capacity C-Class system has te.					
11.	Install Operating System (TPD)	Follow steps defined in					
		Appendix F.2 Installing Operating Systems with PM&C					
		to install TPD software on VM Guests.					
		Check-off the associated Check Box as addition is completed for the VM.     NOAMP-A NOAMP-B SOAM-A SOAM-B					
		□ MP-1 □ MP-2					

Step	Procedure	Result			
12.	PM&C GUI:	Navigate to the VM Management menu			
	Get and record	Select the VM Guest Name from the VM Entities list, and click " <b>Network</b> " tab			
	address of VM				
	Guest	Tasks V			
		Enc: 501 Bay: 13F Name: BL908050103-no			
		Host: Enc: 501 Bay: 1F Host: Enc: 501 Bay: 3F			
		BL908050103-mp			
		BL908050103-no Port IP Addr Admin Oper			
		Enc: 501 Bay: 5F xmi fe80:0:0:0:b5:cfff:fe61:83db Up			
		Enc: 501 Bay: 16F imi fe80:0:0:0:37:bbff:fe49:7a99 Up Up Up Up			
		SOA         control         fe80:0:0:0:2:70ff.fede:bd68         Up         Up           192.168.1.236         Up         Up         Up			
		pmac-xgsdm502			
		the second se			
		Derermine control IP address of VM Guest and record it.			
		<ul> <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>			
		□ NOAMP-A □ NOAMP-B			
		□ SOAM-A: □ SOAM-B:			
		□ MP-1: □ MP-2:			
13.	For <b>NOAMPs</b> only:	Manually configure XMI network on the NOAMPs only; the below steps must be executed before installing OCUDR:			
	Prepare NOAMP	[root@hostname1260476221 ~] # netAdm setdevice=xmionboot=yes			
	for installation of OCUDR	<pre>netmask=<xmi_netmask>address=<xmi_ip_address_for_noamp_a> Interface ymi undated</xmi_ip_address_for_noamp_a></xmi_netmask></pre>			
	application software	[root@hostname1260476221 ~] # netAdm adddevice=xmiroute=default gateway= <xmi address="" default="" for="" gateway="" ip=""></xmi>			
	Connact to the	Route to xmi added			
	NOAMP server	Pastart the network by running the following:			
	IPaddress	root@hostname1260476221 ~] # service network restart			

Procedure 5:	Create, IPM	and Install	Application	on all	Virtual Mac	hines
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Step	Procedure	Result
14.	For <b>NOAMP-A</b> only: Enter Platform configuration menu	Enter platform configuration by running the following: # su - platcfg
15.	For <b>NOAMP-A</b> only: Configure NTP for NOAMP-A	<ul> <li>1. Navigate to Network Configuration ➤ NTP.</li> <li>Network Configuration Menu Network Interfaces Network Bridges Configure Network Routing NFF Tptables TESEC Configuration Resolv</li> <li>2. Select Edit, then "Add a New NTP Server."</li> <li>3. Enter the IP Address of the TVOE Host.</li> <li>Add an NTP Server Address: Hostname (optional): Options: O</li></ul>

Procedure 5: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
16.	Prepare NOAMP for installation of OCUDR	Create a logical volume from NOAMP VM Guest: root@hostname1260476221 ~] # vgcreate stripe_vg /dev/pool_vg
	application software	Volume group "stripe_vg" successfully created
		Create a logical volume rundb:
	Connect to the NOAMP server	root@nostname12604/6221 ~] # <b>ivcreate -L 385Galloc anywherename</b> rundb stripe_vg
	Control IPaddress	Logical volume "rundb" created
		Make filesystem on rundb:
		root@hostname1260476221 ~] # mkfs -t ext4 /dev/stripe_vg/rundb
		mkezis 1.41.12 (1/-May-2010) Filesystem label=
		OS type: Linux
		Block size=4096 (log=2)
		Fragment size=4096 (log=2)
		Stride=64 blocks, Stripe width=192 blocks
		45883392 inodes, 183502848 blocks
		9175142 blocks (5.00%) reserved for the super user
		First data block=0
		Maximum filesystem blocks=4294967296
		32768 blocks per group 32768 fragments per group
		8192 inodes per group
		Superblock backups stored on blocks:
		32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
		4096000, 7962624, 11239424, 20480000, 23887872, 71663616, 78675968
		Allocating group tables: done
		Writing inode tables: done
		Creating journal (32768 blocks): done
		Writing superblocks and filesystem accounting information: done
17.	Install OCUDR application	Follow steps defined in
	software.	Appendix G.2 Installing OCUDR Application with PM&C
		to install OCUDR software.
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .
		□ NOAMP-A □ NOAMP-B □ SOAM-A □ SOAM-B
		□ MP-1 □ MP-2

Step	Procedure	Result
18.	Repeat Steps 4 - 17 Note: Steps 13-16	7 for each Virtual Machine to install its operating system and application software. MUST be executed for NOAMPs only.
19.	Perform upgrade acceptance.	Follow steps defined in
		Appendix H Accept Application Installation on PM&C Managed Servers
		to accept upgrade.
20.	Access the <b>NOAMP</b> server's console.	Connect to the server's console using one of the access methods described in <i>Section 2.1.2</i> .
21.	Log into the	CentOS release 5.6 (Final)
	as the "root"	Kernel 2.6.18-238.19.1.elsprerel5.0.0_72.22.0 on an x86_64
		hostname1260476221 login: root Password: < <i>root password</i> >
22.	NOAMP:	<pre># scp /var/TKLC/db/filemgmt/udrInitConfig.sh \     admusr@<tvoe host="" name="">:/var/tmp</tvoe></pre>
	Transfer file to TVOE Host	admusr@ <tvoe_host_name>'s password: <admusr_password></admusr_password></tvoe_host_name>
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.
		TVOE Host ( NOAMP-A / SOAM-A / MP-1)
		TVOE Host ( NOAMP-B / SOAM-B / MP-2)
23.	Login to TVOE Host:	<pre># ssh admusr@<tvoe_host_name></tvoe_host_name></pre>
	1) SSH to server.	admusr@ <tvoe_host_name>'s password: <admusr_password></admusr_password></tvoe_host_name>
	2) Log into the	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.
	server as the "admusr" user	TVOE Host ( NOAMP-A / SOAM-A / MP-1)
		TVOE Host ( NOAMP-B / SOAM-B / MP-2)
24.	TVOE host:	[admusr@hostname1326744539 ~]\$ <b>su -</b>
	Switch to root	password: <root_password></root_password>
	USEI.	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.
		TVOE Host ( NOAMP-A / SOAM-A / MP-1 )
		TVOE Host ( NOAMP-B / SOAM-B / MP-2 )

Step	Procedure	Result	
25.	TVOE host:	# cd /var/tmp	
	Change	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.	
	airectory.	TVOE Host ( NOAMP-A / SOAM-A / MP-1)	
		TVOE Host (NOAMP-B / SOAM-B / MP-2)	
26.	TVOE host:	<pre># chmod 555 udrInitConfig.sh</pre>	
	Update script	• Check-off the associated Check Box as addition is completed for the TVOE host.	
	permissions.	TVOE Host ( NOAMP-A / SOAM-A / MP-1)	
		TVOE Host ( NOAMP-B / SOAM-B / MP-2 )	
27.	TVOE host:	# ./udrInitConfig.sh	
	Run configuration	Verify no failures are reported. A trace to display the settings for all VM Guests on this server should be shown in output.	
	script as root.	In case of failures, save the log file /var/TKLC/log/udrVMCfg/udrInitConfig.log and contact My Oracle Support (MOS) for assistance.	
		• Check-off the associated Check Box as addition is completed for the TVOE host.	
		TVOE Host ( NOAMP-A / SOAM-A / MP-1)	
		TVOE Host ( NOAMP-B / SOAM-B / MP-2)	
28.	TVOE host:	# init 6	
	Reboot the	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.	
	501761.	TVOE Host ( NOAMP-A / SOAM-A / MP-1)	
		TVOE Host ( NOAMP-B / SOAM-B / MP-2)	
	THIS PROCEDURE HAS BEEN COMPLETED		

# 6.0 NORMAL CAPACITY RMS CONFIGURATION SOFTWARE INSTALLATION PROCEDURE

The user should confirm that the server has been verified through the Hardware Verification Plan [3] before beginning this procedure. RMS Configurations are for lab use only.

# 6.1 Install NOAMP Servers (NO and DR Network Elements)

This procedure will install Tekelec Platform Distribution (TPD) on the NO network elements. ProLiantDL380Gen8 and ProLiantDL380Gen8+ are supported for this procedure.

## Needed material:

TPD Media

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

## Procedure 6: Install NOAMP Servers (NO and DR Network Elements)

Step	Procedure	Result
1.	Access the HP server's console.	Connect to the server's console using one of the access methods described in Section 2.1.2.
2.	Verify the type of server hardware	<pre># hardwareInfo   grep Hardware Hardware ID: ProLiantDL380Gen8 or ProLiantDL380Gen8+</pre>
3.	Update firmware	Follow steps defined in
		Appendix D.3 HP Rack Mount Firmware Upgrade (DL380 hardware)
		to update firmware.
4.	Update BIOS settings	Follow steps defined in <b>Appendix D.2 BIOS Settings</b> to update BIOS settings.
5.	Install Operating System (TPD)	Follow steps defined in
		Appendix F.1 Installing Operating Systems with ILO (DL380 hardware)
		to install TPD software.
<b>Note:</b> The next five steps are only for the <b>NOAMP-A</b> and <b>DR NOAMP-A</b> servers. Once these steps are completed for both servers, Section 6.2: Install SOAM / MP Host Servers (SO Network Elements) may be run in parallel with this procedure.		

Step	Procedure	Result
6.	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> .
7.	Log into the server console as the " <b>root</b> " user.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64 hostnamel260476221 login: root Password: <root_password></root_password>
8.	Configure a temporary XMI IP so NTP can access the routed network.	<ul> <li>Follow steps defined in</li> <li>Appendix B.2 Creating Temporary External XMI IP Address without Interface Bonding (<i>RMS without Cabinet Switch</i>)</li> <li> to define a temporary network.</li> <li><i>Note:</i> The permanent IP assignment for this server will be made when its TKLCConfigData.sh script is applied later in this installation.</li> </ul>
9.	Enter Platform configuration menu	Enter platform configuration by running the following: # su - platcfg

## Procedure 6: Install NOAMP Servers (NO and DR Network Elements)

Step	Procedure	Result
10.	For <b>NOAMP-A</b> only: Enter Platform configuration menu	1. Navigate to Network Configuration > NTP.          Network Configuration Menu         Network Configuration Menu         Network Interfaces         Network Bridges         Configure Network         Configure Network         Resolv         2. Select Edit, then "Add a New NTP Server."         3. Enter the IP Address of the customer provided NTP server.         Add an NTP Server         Hostname (optional):         Optional):         Optional):         Optional):         Select OK, then "Exit."         5. Select Yes to restart ntp Service.         Modified an entry in the nup-conf file:         Do you want to restart the ntp Service?         Image: Note that the select of the select the ntp Service?         Image: Note that the select of the select the ntp Service?
Note:	The remainder	of this procedure is for all <b>NOAMP</b> servers.
11.	Configure Disk Array	Follow steps defined in Appendix E.1 Configuring Disk Array (NO Network Element Servers) (DL380 hardware)
		to configure the disk array.

Procedure 6: Install NOAMP Servers (NO and DR Network Elements)

# Procedure 6: Install NOAMP Servers (NO and DR Network Elements)

Step	Procedure	Result
12.	(Optional) Configure NetBackup Dedicated Interface (Only deployments with Net Backup)	<pre># netAdm adddevice=bond2type=Bondingmode=active-backup \onboot=yesbootproto=nonebondInterfaces="eth21,eth22" \address=<netbackup_ip>netmask=<netbackup_netmask> # netAdm addroute=netdevice=bond2 \address=<netbackup_network_address> \netmask=<netbackup_network_netmask> \gateway=<netbackup_network_gateway_ip></netbackup_network_gateway_ip></netbackup_network_netmask></netbackup_network_address></netbackup_netmask></netbackup_ip></pre>
	Dual Pass-Thru Modules	[OPTIONAL] If this installation is using jumbo frames, set the ethernet interface MTU to the desired jumbo frame size:
		<pre># netAdm setdevice=bond2MTU=<netbackup_mtu_size></netbackup_mtu_size></pre>
13.	( <b>Optional</b> ) Configure Second NetBackup Interface	For all <b>RMS</b> systems, <backup_device> will be:eth14 # netAdm setdevice=<backup_device>slave=noonboot=yes \ address=<netbackup_ip>netmask=<netbackup_netmask></netbackup_netmask></netbackup_ip></backup_device></backup_device>
	(Only deployments with Net Backup) Single Pass-Thru Modules and RMS	<pre># netAdm addroute=netdevice=<backup_device> \address=<netbackup_network_address> \netmask=<netbackup_network_netmask> \gateway=<netbackup_network_gateway_ip> [OPTIONAL] If this installation is using jumbo frames, set the ethernet interface MTU to the desired jumbo frame size: # netAdm_setdevice=<backup_device>MTU=<netbackup_mtu_size></netbackup_mtu_size></backup_device></netbackup_network_gateway_ip></netbackup_network_netmask></netbackup_network_address></backup_device></pre>
14.	Install OCUDR application software.	Follow steps defined in  Appendix G.1 Installing OCUDR Application with ILO ( <i>DL380 hardware</i> )  to install OCUDR software.
15.	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> .
16.	Verify successful upgrade. Command will	<pre># verifyUpgrade NOTE: This command should return no output on a healthy mater. If any among an among it </pre>
	generate no output if no issues are found.	please contact My Oracle Support MOS for assistance.

Step	Procedure	Result		
17.	Change directory	# cd /var/TKLC/backout		
18.	Perform upgrade acceptance.	# ./accept		
19.	Press the ' <b>q</b> ' key to quit screen session wrapper from upgrade acceptance.	<pre>Press q to destroy or r to resurrect window Accepting Upgrade Executing common accept tasks Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Clearing Upgrade Accept/Reject alarm. Cleaning up RPM config backup files Checking / Doot Checking / boot Checking / tmp Checking / usr Checking / var Checking / var Checking / var Checking / var Checking / tmp/appworks_temp Checking / var/TKLC Checking / var/TKLC/appw/logs/Process Checking / var/TKLC/db/filemgmt Checking /var/TKLC/db/filemgmt Checking /var/TKLC/chubb Starting cleanup of RCS repository. INFO: Removing '/var/lib/prelink/force' from RCS repository INFO: Removing '/etc/my.cnf' from RCS repository === Window terminated (Fri Jan 24 13:10:03 2014) === screen session: use 'screen -x upgrade' to reconnect</pre>		
	THIS PROCEDURE HAS BEEN COMPLETED			

## Procedure 6: Install NOAMP Servers (NO and DR Network Elements)

# 6.2 Install SOAM / MP Host Servers (SO Network Elements)

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

## **Requirements:**

• Procedure 6: Install NOAMP Servers (NO and DR Network Elements) must be complete

## **Needed material:**

• TVOE Media

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

#### Procedure 7: Install SOAM / MP Servers (SO Network Elements)

Step	Procedure	Result
1.	Access the HP server's console.	Connect to the HP server's console using one of the access methods described in Section 2.1.2.
<b>2</b> .	Check the type of server hardware	# hardwareInfo   grep Hardware Hardware ID: ProLiantDL380Gen8 or ProLiantDL380Gen8+
3.	Update firmware	Follow steps defined in
		Appendix D.3 HP Rack Mount Firmware Upgrade (DL380 hardware)
		to update firmware.
4.	Update BIOS settings	Follow steps defined in Appendix D.2 BIOS Settings to update BIOS settings.
5.	Add image to management server.	Follow Appendix J Adding Software Images to PM&C Server to add TVOE image.
6.	Install Operating System (TVOE)	Follow steps defined in
		Appendix F.1 Installing Operating Systems with ILO (DL380 hardware)
		to install TVOE software.

Step	Procedure	Result	
7.	Configure TVOE network	Follow steps defined in	
		<b>Appendix L.2</b> Configure TVOE Network without Interface Bonding ( <i>RMS without cabinet switch</i> )	
		to configure TVOE network.	
8.	Deploy PM&C	Follow steps defined in <b>Appendix I.1</b> Deploying PM&C on TVOE Server.	
9.	Configure PM&C application	Follow steps defined in <b>Appendix I.2</b> Configure PM&C Application.	
10.	Configure Cabinet	Follow steps defined in <b>Appendix I.3</b> Add Cabinet to PM&C System Inventory.	
11.	Configure RMS	Follow steps defined in Appendix I.4 Add Rack Mount Server to PM&C System Inventory.	
	THIS PROCEDURE HAS BEEN COMPLETED		

## Procedure 7: Install SOAM / MP Servers (SO Network Elements)

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

This procedure will create Virtual Machines (VMs) for SO and MP servers, install the TPD Operating System on each VM, and install the OCUDR application on each VM. It details the create/IPM/install for a single VM and should be repeated for every VM.

## **Requirements:**

• Procedure 7: Install SOAM / MP Host Servers (SO Network Elements) has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

## Procedure 8: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
	Important Note: according to hard Rack Mount Element to a	The IP address used in this procedure for <pmac_management_network_ip> will vary dware type: Server deployments (ex: ProliantDL380pGen8) will use two IP addresses per SO Network ccess the PM&amp;C deployed on each member RMS.</pmac_management_network_ip>
1.	Add image to management server.	Follow Appendix J Adding Software Images to PM&C Server to add TPD and OCUDR software images to this PM&C repository.
2.	PM&C GUI: Login to PM&C GUI	Open web browser and enter: http:// <pmac_management_network_ip> Login as pmacadmin user.</pmac_management_network_ip>

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Step	Procedure	Result
3.	<b>PM&amp;C GUI:</b> Navigate to VM Management menu	Navigate to the VM Management menu
4.	PM&C GUI: Select the desired Server and create the VM Guest	Select the TVOE blade or rack mounted 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.         Virtual Machine Management

Step	Procedure	Result
5.	PM&C GUI: Click on the Import Profile dialogue buttont	A "Create VM Guest" window is displayed that is similar to the below:.
		Create VM Guest Name: Host: RMS: pc90000632   VM Info Num vCPUs: 1  VM UUID: Memory (MBs): 1536
		Memory (MBs): 1536         Virtual Disks         Prim Size (MB)         Host Pool         Host Vol Name         Guest Dev Name         Virtual NICs         Host Bridge         Guest Dev Name         NO HOST         control         Create         Import Profile"         button .         Check-off the associated Check Box as addition is completed for the VM.         SOAM-A       SOAM-B         MP-1       MP-2       MP-3       MP-4

Procedure 8: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
6.	PM&C GUI: Select the desired ISO/Profile	Select the desired <b>ISO/Profile</b> . - If creating a VM for a SOAM server, use the " <b>UDR_SO</b> " profile. - If creating a VM for an MP, use the " <b>UDR_MP</b> " profile.
	value	Import Profile       Import Profile         ISO/Profile:       872-2553-101-10.0.0_10.1.0-UDR-x86_64 => UDR_SO         Num CPUs:       872-2553-101-10.0.0_10.1.0-UDR-x86_64 => UDR_SO         872-2553-101-10.0.0_10.1.0-UDR-x86_64 => UDR_MP         Virtual Disks:       Prim Size (MB)         Voguests
		NICs: Bridge TPD Dev control control imi imi manageme xmi Select Profile
		Click <b>"Select Profile</b> " button.
		SOAM-A SOAM-B
		□ MP-1 □ MP-2 □ MP-3 □ MP-4

Step	Procedure	Result				
7.	PM&C GUI:	The default Virtual NICs are configured for a deployment with two XSI networks.				
	Customize the <b>NICs</b> list to suit your deployment	- If your depoloyment has only a single <b>XSI</b> network, select the row for " <b>xsi2</b> " by clicking on i then click the <b>Delete</b> button:				
		Virtual NICs Add Delete				
		Host Bridge Guest Dev Name				
		xmi xmi 🔺				
		xsi1 xsi1				
		xsi2 xsi2				
		<ul> <li>If your deployment has more than two XSI networks, click the Add button, select them from the Host Bridge drop box and type in the same name into Guest Dev Name.</li> <li>Check-off the associated Check Box as addition is completed for the VM.</li> <li>SOAM-A SOAM-B</li> </ul>				
		□ MP-1 □ MP-2 □ MP-3 □ MP-4				

Step	Procedure	Result
8.	PM&C GUI:	A "Create VM Guest" window is displayed that is similar to the below.
	Override the VM Guest <b>Name</b> to	Virtual Machine Management
	make it unique	Tasks 💌
	for the site	VM Entities       Image: Sol Bay: 13F         Image: Enc: Sol Bay: 13F       Image: Enc: Sol Bay: 13F         Image: Enc: Sol Bay: 13F       Image: Enc: Sol Bay: 13F         Image: Enc: Sol Bay: 13F       Image: Enc: Sol Bay: 13F         Image: Enc: Sol Bay: 13F       Image: Enc: Sol Bay: 13F         Image: Enc: Sol Bay: 13F       Image: Enc: Sol Bay: 13F         Image: Enc: Sol Bay: 13F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: Sol Bay: 14F         Image: Enc: Sol Bay: 14F       Image: Enc: S
		Override the Name field to something like: SOA, SOB, MP1 or MP2, etc. (Don't use hyphens in the name). You could also include a location within the Name value such as SOMRSVNCA. (This will not become the ultimate hostname. It is just an internal tag for the VM host manager.)         Click Create button         • Record the Site VM Guest Name of each VM that is added in the space provided below:         • Check-off the associated Check Box as addition is completed for the VM.         • SOAM-A:

Procedure 8:	Create, I	PM and	Install	Application	on all	Virtual	Machines
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Procedure 8:	Create, IPM and Install Application on all Virtual Machine	es

Step	Procedure	Result				
9.	PM&C GUI: Select	■ Aain Menu     Background Task Monitoring       ■ Hardware     ■ System Inventory				
		System Configuration				
	<u>Main Menu</u>	Software Inventory     Manage Software Images     125 Install OS     Encrot SO     Waiting for target server to boot				
	- Task Monitoring	VM Management     124 Install OS Enc;701 Bay:4F     Waiting for target server to boot				
		Administration 123 Install OS Enc:701 SQ:3F Waiting for target server to boot				
	as shown on the right.	Status and Manage     Status and Manage     Status and Manage     Task Monitoring     Task Monitoring				
	and original	A Help      Exc:rol and a second				
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .				
		□ SOAM-A □ SOAM-B				
		□ MP-1 □ MP-2 □ MP-3 □ MP-4				
10.	PM&C GUI:	Verify that the Virtual Machine successfully created.				
	Verify that Create VM task successfully	5         VirtAction: Create         Host IP::1dff:fe77:7fb2 Guest: pc9000720-mp1         Guest creation completed (pc9000720-mp1)         0:00:05         2014-10-13 17:05:56         100%				
	completes.	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .				
	The user should see a screen similar to the one	□ SOAM-A □ SOAM-B				
	on the right with <b>Progress</b> value of <b>100%</b> .	□ MP-1 □ MP-2 □ MP-3 □ MP-4				
	Note: The steps a next step. This wa	bove may be completed for each VM Guest that this PM&C administers before proceeding on to the y you may install and upgrade multiple VM Guests in parallel.				
11.	Install Operating	Follow steps defined in				
		Appendix F.2 Installing Operating Systems with PM&C				
		to install TPD software on VM Guests.				
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .				
		□ SOAM-A □ SOAM-B				
		□ MP-1 □ MP-2 □ MP-3 □ MP-4				

Step	Procedure	Result				
12.	PM&C GUI: Get and record control IP	Navigate to the VM Management menu Select the VM Guest Name from the VM Entities list, and click "Network" tab				
	Guest	VM Entities         Image: Composition of the state				
		Pmac Network Interfaces				
		Port IP Addr Admin Oper				
		rmi fe80:0:0:5e:caff.fe71:5a27 Up Up Up Up Up				
		fe80:0:0:5e:a4ff.fe6b:bd02 Up Up imi 10.240.37.196 Up Up				
		fe80:0:0:0 <del>:0:9:4111 fe19:7451</del> Up Up				
		Derermine control IP address of VM Guest and record it.         • Record the Site control IP Address of each VM that is added in the space provided below:         • Check-off the associated Check Box as addition is completed for the VM.         • SOAM-A:       • SOAM-B:         • MP-1:       • MP-2:         • MP-3:       • MP-4:				

Procedure 8: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result				
13.	Install OCUDR application software.	Follow steps defined in Appendix G.2 Installing OCUDR Application with PM&C				
		<ul> <li>to install OCUDR software.</li> <li>Check-off the associated Check Box as addition is completed for the VM.</li> </ul>				
		□ SOAM-A □ SOAM-B □ MP-1 □ MP-2 □ MP-3 □ MP-4				
14.	Repeat Steps 4 - 12	3 for each Virtual Machine to install its operating system and application software.				
15.	Perform upgrade acceptance.	Follow steps defined in <b>Appendix H</b> Accept Application Installation on PM&C Managed Servers				
		to accept upgrade.				
16.	Access the <b>NOAMP</b> server's console.	Connect to the server's console using one of the access methods described in Section 2.1.2.				
17.	Log into the server console as the " <b>root</b> "	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64				
		hostname1260476221 login: root Password: <root password=""></root>				
18.	NOAMP: Transfer file to	<pre># scp /var/TKLC/db/filemgmt/udrInitConfig.sh \     admusr@<tvoe_host_name>:/var/tmp     admusr@<tvoe_host_name>'s password: <admusr_password></admusr_password></tvoe_host_name></tvoe_host_name></pre>				
	TVOL HOS	Check-off the associated Check Box as addition is completed for the TVOE host.				
		TVOE Host ( SOAM-A / MP-1 / MP-2 )				
		TVOE Host ( SOAM-B / MP-3 / MP-4 )				

Procedure 8: Create, IPM and Install Application on all Virtual Machines

#### Step Procedure Result Login to TVOE # ssh admusr@<tvoe host name> 19. Host: admusr@<tvoe host name>'s password: <admusr\_password> 1) SSH to server. Check-off the associated Check Box as addition is completed for the TVOE host. ٠ 2) Log into the server as the TVOE Host (SOAM-A / MP-1 / MP-2) "admusr" user.. TVOE Host (SOAM-B / MP-3 / MP-4) **TVOE host:** 20. [admusr@hostname1326744539 ~]\$ su password: <root password> Switch to root user. Check-off the associated Check Box as addition is completed for the TVOE host. • TVOE Host (SOAM-A / MP-1 / MP-2) TVOE Host (SOAM-B / MP-3 / MP-4) **TVOE host:** # cd /var/tmp 21. Check-off the associated **Check Box** as addition is completed for the **TVOE** host. • Change directory. TVOE Host (SOAM-A / MP-1 / MP-2) TVOE Host (SOAM-B / MP-3 / MP-4) TVOE host: # chmod 555 udrInitConfig.sh 22. Check-off the associated **Check Box** as addition is completed for the **TVOE** host. • Update script permissions. TVOE Host (SOAM-A / MP-1 / MP-2) TVOE Host (SOAM-B / MP-3 / MP-4)

Step	Procedure	Result			
23.	TVOE host:	# ./udrInitConfig.sh			
	Run configuration script as root.	Verify no failures are reported. A trace to display the settings for all VM Guests on this server should be shown in output.			
		In case of failures, save the log file /var/TKLC/log/udrVMCfg/udrInitConfig.log and contact My Oracle Support (MOS) for assistance.			
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.			
		TVOE Host ( SOAM-A / MP-1 / MP-2 )			
		TVOE Host ( SOAM-B / MP-3 / MP-4 )			
24.	TVOE host:	# init 6			
	Reboot the	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.			
	server.	TVOE Host ( SOAM-A / MP-1 / MP-2 )			
		TVOE Host ( SOAM-B / MP-3 / MP-4 )			
	THIS PROCEDURE HAS BEEN COMPLETED				

Procedure 8: Create, IPM and Install Application on all Virtual Machines

# 7.0 LOW CAPACITY RMS CONFIGURATION SOFTWARE INSTALLATION PROCEDURE

The user should confirm that the server has been verified through the Hardware Verification Plan [3] 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 OCUDR 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 OCUDR 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 NOAMP /SOAM / MP Servers

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

## Needed material:

• TVOE Media

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

## IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

## Procedure 9: Install NOAMP/ SOAM / MP Servers

Step	Procedure	Result
1.	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.	Verify the type of server hardware	<pre># hardwareInfo   grep Hardware Hardware ID: ProLiantDL380Gen8 or ProLiantDL380Gen8+</pre>
3.	Update firmware	Follow steps defined in
		Appendix D.3 HP Rack Mount Firmware Upgrade ( <i>DL380 hardware</i> ) to update firmware.
4.	Update BIOS settings	Follow steps defined in Appendix D.2 BIOS Settings to update BIOS settings.

Step	Procedure	Result			
5.	Clean the Disk Array	Note: Execute only if previous install on the RMS server.			
		Follow steps defined in			
		Appendix M.1Removing RMS Disk Array Configuration			
		to clean the Disk Array			
6.	Install Operating System (TVOE)	Follow steps defined in			
		Appendix F.1 Installing Operating Systems with ILO (DL380 hardware)			
		to install TVOE software.			
7.	Configure TVOE network	Follow steps defined in			
		Appendix L.3 Configure TVOE Network for Topology 7			
		to configure TVOE network.			
8.	Configure Disk Array	Follow steps defined in			
		Appendix E.1 Configuring Disk Array (NO Network Element Servers) (DL380 hardware)			
		to configure the disk array.			

## Procedure 9: Install NOAMP/ SOAM / MP Servers

Procedure 9:	Install NOAMP/ SOAM / MP Se	ervers
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Step	Procedure	Result	
9.	Configure a logical storage pool	a. Create the file name "configStorageBlade" through vi command.	
		Add the line below in the file vgname="stripePool_vg"members="sdb,sdc,sdd" virtstoragepool	
		b. Create storage pool	
		<pre>[root@pc9000714-tvoe ~]# /usr/TKLC/plat/sbin/storageMgr configStorageBlade</pre>	
		c. Verify pool is listed below	
		[root@pc9000714-tvoe ~]# virsh pool-list Name State Autostart	
		stripePool_vg active yes vgguests active yes	
10.	The following	lowing steps should be performed on all four TVOE servers.	
11.	Deploy PM&C	Follow steps defined in Appendix I.1 Deploying PM&C on TVOE Server.	
12.	Configure PM&C application	Follow steps defined in Appendix I.2 Configure PM&C Application.	
13.	Configure Cabinet	Follow steps defined in Appendix I.3 Add Cabinet to PM&C System Inventory.	
14.	Configure RMS	Follow steps defined in Appendix I.4 Add Rack Mount Server to PM&C System Inventory.	
	THIS PROCEDURE HAS BEEN COMPLETED		

# 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 OCUDR application on each VM. It details the create/IPM/install for a single VM and should be repeated for every VM.

#### **Requirements:**

• **Procedure 9:** Install NOAMP /SOAM / MP Servers has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

Step	Procedure	Result	
	• Rack to ac	• Rack Mount Server deployments (ex: <b>ProLiantDL380pGen8</b> ) will use two IP addresses per SO Network Element to access the PM&C deployed on each member RMS.	
1.	Add image to manageme nt server.	Follow <b>Appendix J Adding Software Images to PM&amp;C Server</b> to add <b>TPD</b> and OCUDR software images to this PM&C repository.	
2.	PM&C GUI: Login to PM&C GUI	Open web browser and enter: http:// <pmac_management_network_ip> Login as pmacadmin user.</pmac_management_network_ip>	
3.	PM&C GUI: Navigate to VM Manageme nt menu	Navigate to the VM Management menu	

Step	Procedure	Result
4.	PM&C GUI: Select the desired Server and create the VM Guest	Select the rack mounted 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.          Virtual Machine Management       Image: Constrained constraine
		VM Entities       Image: Create Guest         Create Guest.       Create Guest.         Check-off the associated Check Box as addition is completed for the VM.         NOAMP-A       NOAMP-B         SOAM-A       SOAM-B         MP-1       MP-2

Procedure 10: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
5.	Procedure PM&C GUI: Click on the Import Profile dialogue buttont	Result         A "Create VM Guest" window is displayed that is similar to the below:.         Image: Create VM Guest         Image: Host RMS: pc90000632 // Media         Num vCPUs 1 // WM UUD:         Media         Num vCPUs 1 // WM UUD:         Media         Nemory (MBs): 1536 */ WM UUD:         Memory (MBs): 1228         Window Guest Dev Name         Guest Dev Name         Molds Bridge Br

Procedure 10: Create, IPM and Install Application on all Virtual Machines
Step	Procedure	Result
6.	PM&C GUI:	Select the desired <b>ISO/Profile</b> .
	Select the desired <b>ISO/Profile</b> value	<ul> <li>If creating a VM for a NOAMP server, use the "UDR_NO_LowCapacity" profile.</li> <li>If creating a VM for a SOAM server, use the "UDR_SO_ LowCapacity" profile.</li> <li>If creating a VM for an MP, use the "UDR_MP_ LowCapacity" profile.</li> </ul>
		UDR-10.2.0_12.1.5-x86_64 => UDR_NO_LowCapacity         UDR-10.2.0_12.1.5-x86_64 => UDR_SO_LowCapacity         UDR-10.2.0_12.1.5-x86_64 => UDR_MP_LowCapacity         imi       imi         imi       imi         xmi       xmi         Select Profile         Click "Select Profile" button.
		Charly off the encodinted Charly Day on addition in completed for the VM
		L NOAMP-A NOAMP-B SOAM-A SOAM-B
		□ MP-1 □ MP-2
7.	PM&C GUI:	The default Virtual NICs are configured for a deployment with two XSI networks.
	Customize the <b>NICs</b> list to suit your deployment	- If your depoloyment has only a single <b>XSI</b> network, select the row for " <b>xsi2</b> " by clicking on it then click the <b>Delete</b> button:
		Virtual NICs Add Delete Host Bridge Guest Dev Name xmi xmi xii xsi1 xsi1 xsi2 xsi2 +
		- If your deployment has more than two <b>XSI</b> networks, click the <b>Add</b> button, select them from the Host Bridge drop box and type in the same name into <b>Guest Dev Name</b> .
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .
		□ NOAMP-A □ NOAMP-B □ SOAM-A □ SOAM-B
		□ MP-1 □ MP-2

#### Procedure 10: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result				
8.	PM&C GUI:	A "Create VM Guest" window is displayed that is similar to the below.				
	Override the VM	Virtual Machine Management				
	Guest Name to make it unique for the site	Tasks       Create VM Guest         Image: Sol Bay: 13F       Create VM Guest         Image: Sol Bay: 14F       Image: Sol Bay: 14F         Image: Sol Bay: 14F       Image: Sol Bay: 14F         Image: Sol Bay: 14F       Image: MB)         Image: Sol Bay: 16F       Image: Sol Bay: 16F         Image: Sol Bay: 16F       Image: Sol Bay: 16F				
		in the name) You could also include a location within the Name value such as SOMRSVNCA. (This will not become the ultimate hostname. It is just an internal tag for the VM host manager.)				
		<ul> <li>Click Create button</li> <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>				
		□ NOAMP-A: □ NOAMP-B				
		□ SOAM-A: □ SOAM-B:				
		□ MP-1: □ MP-2:				

Procedure 10: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result						
9	PM&C GUI:	🖬 🚨 Main Menu	Background Ta	sk Monitoring		g		3
J.	Select	<ul> <li>Maroware</li> <li>Software</li> </ul>	Fiter -					
		– 📑 VM Management 💼 🧰 Storage	ID Task	Tarnet	Status	Running Time	Start Time	Progress
	Main Menu	Administration Status and Manage	2 402 Methodian	Host IP:	Create Initiated	0-00-00	2015-01-16	05
	→ Task Monitoring	Task Monitoring		Guest pc9000716.no	Citate manes	0.00.00	05:42:49	
	Ū	- 🧇 Help - 😝 Logout	102 Add image		Done: UDR-10.2.0_12.3.0-x86_64	0:00:15	05:35:49	100%
	as shown	🗉 🚇 Main Menu						
	on the right.	🖬 🧰 Hardware 🗃 🧰 Software	Background Ta	sk Monitoring				
		VM Management	Filter 🔻					
		<ul> <li>Storage</li> <li>Administration</li> </ul>	ID Task	Target Host IP	Status	Running Time	Start Time	Progress
		Status and Manage Interference in the state of	103 VirtAction:	Create:9fff:fe64:ee0d Guest: pc9000716-no	Handling guest power	0:00:04	2015-01-16 05:42:49	42%
		- 💩 Help	102 Add Image		Done: UDR-10.2.0_12.3.0-x86_64	0:00:15	2015-01-16	100%
		⊢ pa Logout						
		Ain Menu	Background Ta	sk Monitoring				
		🖬 🧰 Software	Filter •					
		<ul> <li>With Management</li> <li>Storage</li> </ul>	ID Task	Target	Status	Running Time	Start Time	Progress
		Administration Status and Manage	103 VirtAction:	Host IP: Create:9ffftfe64:ee0d	Guest creation completed	0:01:00	2015-01-16	100%
		- Task Monitoring	-	Coast ac0000755 pa	(pc9000716-no)		05:42:49	
		Mala	TAXA DECIDE DECIDENTIAL	duest, practor ro-no			2015 01 16	20000
		<ul> <li>Check-off the as</li> </ul>	102 Add image	<b>Box</b> as addition	Done: UDR-10.2.0_12.3.0.x86_64	0:00:15 VM.	2015-01-16 05:35:49	100%
	DM&C CUIL		102 Add Image sociated Chec NOAMP-E MP-2	ek Box as addition       B     SOA	Done: UDR-10.2.0_123.0.x86_64 is completed for the M-A SOAN	0:00:15 VM. Л-В	2015-01-16 05:35:49	100%
10.	PM&C GUI:	<ul> <li>Check-off the as</li> <li>NOAMP-A</li> <li>MP-1</li> <li>Verify that the Virtual</li> </ul>	102       Add Image         sociated       Check         NOAMP-E         MP-2         Machine       successory	ek Box as addition       B     SOA	bone: UDR-10.2.0_123.0-x86_64 is completed for the M-A	0:00:15 VM. Л-В	2015-01-16 05:35:49	100%
10.	PM&C GUI: Verify that Create VM	<ul> <li>Otheck-off the as</li> <li>NOAMP-A</li> <li>MP-1</li> <li>Verify that the Virtua</li> </ul>	102       Add Image         sociated       Check         NOAMP-E         MP-2         Machine       successory	ek Box as addition       B     SOA       ccessfully created.	Done: UDR-10.2.0_123.0-x86_64 is completed for the M-A SOAN	0:00:15 VM. Л-В	2015-01-16 05:35:49	100%
10.	PM&C GUI: Verify that Create VM task	<ul> <li>Check-off the as</li> <li>NOAMP-A</li> <li>MP-1</li> <li>Verify that the Virtua</li> <li>Tasks</li> <li>ID Task</li> </ul>	102       Add Image         sociated       Check         NOAMP-E         MP-2         Machine       succ         Target	ek Box as addition       B     SOA       ccessfully created.	Done: UDR-10.2.0_123.0.x86_64 is completed for the M-A	осоо:15 VM. Л-В	2015-01-16 05:35:49 Progre	100%
10.	PM&C GUI: Verify that Create VM task successfully completes.	<ul> <li>Check-off the as</li> <li>NOAMP-A</li> <li>MP-1</li> <li>Verify that the Virtua</li> <li>Tasks</li> <li>ID Task</li> <li>13 VirtAction: Creat</li> </ul>	102 Add Image sociated Check NOAMP-E MP-2 Il Machine suc Target te RMS: pc904 Guest: NO-A	ek Box as addition       B     SOA       ccessfully created.       Status       0833-no-a       Guest created	bone: UDR-10.2.0_123.0.x86_64 is completed for the M-A	0:00:15 VM. A-B Start Time 2012-07-06 19:05:02	2015-01-16 05:35:49 Progra	100% PSS
10.	PM&C GUI: Verify that Create VM task successfully completes. The user should see a screen similar to the one on the right with Progress value of	<ul> <li>Check-off the as</li> <li>NOAMP-A</li> <li>MP-1</li> <li>Verify that the Virtua</li> <li>Tasks</li> <li>13 VirtAction: Creat</li> <li>NOAMP-A</li> <li>MP-1</li> </ul>	102       Add Image         sociated Check         NOAMP-E         MP-2         Id Machine successory         Target         RMS: pc904         Guest: NO-A         sociated Check         NOAMP-E         MP-2         Id Machine successory         MP-2         Id Machine successory         MP-2         Id Machine successory         MP-2         Id Machine successory         Id MACHINE successory         Id MACHINE successory         Id MP-2         Id MP-2	ek Box as addition         B       SOA         B       SOA         ccessfully created.         0833-no-a       Guest created.         ek Box as addition         B       SOA	eation completed for the M-A SOAM	0:00:15 VM. Л-В 2012-07-06 19:05:02 VM. Л-В	2015-01-16 05:35:49 Progra	100%

Procedure 10: Create, IPM and Install Application on all Virtual Machines

OCUDR 10.0.1

Step	Procedure	Result
11.	Install Operating	Follow steps defined in
	System (TPD)	Appendix F.2 Installing Operating Systems with PM&C
		to install TPD software on VM Guests.
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>VM</b> .
		□ NOAMP-A □ NOAMP-B □ SOAM-A □ SOAM-B
		□ MP-1 □ MP-2

#### Procedure 10: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result					
12.	PM&C GUI: Get and record control IP address of VM Guest	Navigate to the VM Management menu Select the VM Guest Name from the VM Entities list, and click "Network" tab					
		VM Entities () () (VM Entities () () () () () () () () () () () () ()	Guest Current Power State: Running Change to On •				
		Port IP Ac	ldr Admin Oper				
		xmi fe80:0:0:0:5054:ff.fe22:co	dd Up Up				
		control fe80:0:0:0:5054:fffe9a:1d 192.168.	8e Up Up 1.6 Up Up				
		Derermine control IP address of VM Guest and record it.					
		<ul> <li>Record the Site control IP Address of each VM that is added in the sp</li> <li>Check-off the associated Check Box as addition is completed for the V</li> </ul>	ace provided below: /M.				
		□ NOAMP-A: □ NOAMP-B					
		□ SOAM-A: □ SOAM-B:					
		□ MP-1: □ MP-2:					

Procedure 10: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
13.	For <b>NOAMP-A</b> only:	Manually configure XMI network on the first NOAMP guest only, (NO-A); the below steps must be executed before installing OCUDR:
	Prepare NOAMP for installation of OCUDR application software	<pre>[root@hostname1260476221 ~] # netAdm setdevice=xmionboot=yes netmask=<xmi_netmask>address=<xmi_ip_address_for_noamp_a> Interface xmi updated [root@hostname1260476221 ~] # netAdm adddevice=xmiroute=default gateway=<xmi_ip_address_for_default_gateway> Route to xmi added</xmi_ip_address_for_default_gateway></xmi_ip_address_for_noamp_a></xmi_netmask></pre>
	Connect to the NOAMP server Control IPaddress	Restart the network by running the following: root@hostname1260476221 ~] # service network restart
14.	For NOAMP-A only: Enter Platform configuratio n menu	Enter platform configuration by running the following: # su - platefg

#### Procedure 10: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result
15.	For NOAMP-A only: Configure NTP for NOAMP-A	<pre>Nesur Nesur Nesur Nesur Nesur Network Configuration &gt; NTP. Network Configuration Network Interfaces Configure Network Routing Network Interfaces Configure Network Routing Network Interfaces Configuration Network Interfaces Configure Network Routing Network Interfaces Routing Routin</pre>
		6. Exit platefg.

Procedure 10: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result	
16.	Prepare NOAMP for installation of OCUDR application software Connect to the NOAMP server Control IPaddress	<pre>Nesuri Create a logical volume from NOAMP VM Guest: root@hostname1260476221 ~] # vgcreate stripe_vg /dev/pool_vg Volume group "stripe_vg" successfully created Create a logical volume rundb: root@hostname1260476221 ~] # lvcreate -L 385Galloc anywherename rundb stripe_vg Logical volume "rundb" created Make filesystem on rundb: root@hostname1260476221 ~] # mkfs -t ext4 /dev/stripe_vg/rundb mke2fs 1.41.12 (17-May-2010) Filesystem label= OS type: Linux Block size=4096 (log=2) Fragment size=4096 (log=2) Stride=64 blocks, Stripe width=192 blocks 45883392 indes, 183502848 blocks 9175142 blocks (5.008) reserved for the super user First data block=0 Maximum filesystem blocks=4294967296 5601 block groups 32768 blocks per group, 32768 fragments per group 8192 indes per group Superblock backups stored on blocks:</pre>	
17.	Install OCUDR application software.	Writing superblocks and filesystem accounting information: done         Follow steps defined in         Appendix G.2 Installing OCUDR Application with PM&C         to install OCUDR software.         • Check-off the associated Check Box as addition is completed for the VM.         NOAMP-A       NOAMP-B         SOAM-A       SOAM-B         MP-1       MP-2	
18.	Repeat Steps 4 - 17 for each Virtual Machine to install its operating system and application software.		

Step	Procedure	Result
19.	Perform upgrade acceptance.	Follow steps defined in <b>Appendix H</b> Accept Application Installation on PM&C Managed Servers
		to accept upgrade.
20.	Access the <b>NOAMP</b> server's console.	Connect to the server's console using one of the access methods described in <i>Section 2.1.2</i> .
21.	Log into the server console as the " <b>root</b> " user.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64 hostname1260476221 login: root Password: <root_password></root_password>
22.	NOAMP:	<pre># scp /var/TKLC/db/filemgmt/udrInitConfig.sh \</pre>
	Transfer file to TVOE Host	<pre>admusr@<tvoe_host_name>:/var/tmp admusr@<tvoe_host_name>'s password: <admusr_password></admusr_password></tvoe_host_name></tvoe_host_name></pre>
	11031	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.
		TVOE Host (NOAMP-A / SOAM-A / MP-1)
		TVOE Host (NOAMP-B / SOAM-B / MP-2)
23.	Login to TVOE Host: 1) SSH to server.	<pre># ssh admusr@<tvoe_host_name> admusr@<tvoe_host_name>'s password: <admusr_password> • Check-off the associated Check Box as addition is completed for the TVOE host.</admusr_password></tvoe_host_name></tvoe_host_name></pre>
	<b>2)</b> Log into the server as the	TVOE Host (NOAMP-A / SOAM-A / MP-1)
	" <b>admusr</b> " user. <i>.</i>	TVOE Host (NOAMP-B / SOAM-B / MP-2)
24.	TVOE host: Switch to root user.	<pre>[admusr@hostname1326744539 ~]\$ su - password: <root_password> </root_password></pre>
		TVOE Host (NOAMP-A / SOAM-A / MP-1)
		TVOE Host (NOAMP-B / SOAM-B / MP-2)

### Procedure 10: Create, IPM and Install Application on all Virtual Machines

Step	Procedure	Result			
25.	TVOE host:	# cd /var/tmp			
	Change	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.			
	uncolory.	TVOE Host (NOAMP-A / SOAM-A / MP-1)			
		TVOE Host (NOAMP-B / SOAM-B / MP-2)			
26.	TVOE host:	<pre># chmod 555 udrInitConfig.sh</pre>			
	Update	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.			
	permissions	TVOE Host (NOAMP-A / SOAM-A / MP-1)			
		TVOE Host (NOAMP-B / SOAM-B / MP-2)			
27.	TVOE host:	# ./udrInitConfig.sh			
	Run configuratio n script as	Verify no failures are reported. A trace to display the settings for all VM Guests on this server should be shown in output.			
	root.	In case of failures, save the log file /var/TKLC/log/udrVMCfg/udrInitConfig.log and contact My Oracle Support (MOS) for assistance.			
		• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.			
		TVOE Host (NOAMP-A / SOAM-A / MP-1)			
		TVOE Host (NOAMP-B / SOAM-B / MP-2)			
28.	TVOE host:	# init 6			
	Reboot the	• Check-off the associated <b>Check Box</b> as addition is completed for the <b>TVOE</b> host.			
		TVOE Host (NOAMP-A / SOAM-A / MP-1)			
		TVOE Host (NOAMP-B / SOAM-B / MP-2)			
	THIS PROCEDURE HAS BEEN COMPLETED				

#### **Procedure 10:** Create, IPM and Install Application on all Virtual Machines

### 8.0 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:**

- Procedure 1: Install NOAMP Servers (NO and DR Network Elements)
- or Procedure 4: Install NOAMP / SOAM / MP Servers
- or Procedure 6: Install NOAMP Servers (NO and DR Network Elements)
- or Procedure 9: Install NOAMP /SOAM / MP Servers has been completed.

#### Assumptions:

- This procedure assumes that the OCUDR 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 OCUDR 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 OCUDR GUI prior to configuring the first OCUDR server. This can be done either by one of two procedures:

- 1. Configuring a Temporary External XMI IP Address, as described in **Appendix B.1** Creating Temporary External XMI IP Addressor optinally, **Appendix B.2** Creating Temporary External XMI IP Address without Interface Bonding
- Plugging a laptop into an unused, unconfigured port on the NOAMP-A server using a direct-connect Ethernet cable, as described in Appendix B.3: Establishing a Local Connection for Accessing OCUDR GUI (RMS only)

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

Step	Procedure	Result
1.	NOAMP Server A: Launch an approved web browser and connect to the NOAMP Server A IP address NOTE: If presented with the "security certificate" warning screen shown to the right, choose the following option: "Continue to this website (not recommended)".	Certificate Error: Navigation Blocked - Windows Internet Explorer   Certificate Error: Navigation Blocked     He Edt View Favorites Tools Help   Share Browser WebEx +     Certificate Error: Navigation Blocked     There is a problem with this website's security certificate.   These scurity certificate presented by this website was not issued by a trusted certificate authority. The security certificate presented by this website was issued for a different website's address.   Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.   We recommend that you close this webpage and do not continue to this website.   Citck here to dose this webpage.   Continue to this website (not recommended).   More information
2.	NOAMP Server A: The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login         Log In         Enter your username and password to log in         Username: guiadmin         Password:         Change password         Change password         Log In         Sword:         Description         Change password         Log In         Budden         Description         Change password         Log In         Sword:         Log In         Description         Description
3.	NOAMP Server A: The user should be presented the OCUDR Main Menu as shown on the right.	Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&P) Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&P) Main Menu Administration Administration Administration Configuration Alarms & Events Security Log Status & Manage Status & Manage Status & Manage Communication Agent Diameter Help Diameter

Step	Procedure	Result
4.	NOAMP Server A:         Configuring Network         Element         Select         Main Menu         → Configuration         → Network Elements        as shown on the right.	Connected using 10.250.51.80 to hostname1345220802 (ACTIVE NETWORK OAM&P)  Main Menu Administration Configuration Network Elements Services Services Servers
5.	NOAMP Server A: From the Configuration / Network Elements screen Select the "Choose File" dialogue button (scroll to bottom left corner of screen).	Main Menu: Configuration -> Network Elements       Wed Feb 18 10:22:52 2015 EST         Filter       Network Element         Network Element       Pause updates         Choose File       Office chosen         Upload File       Insert         Insert       Report



Step	Procedure		Result		
9.	Select <u>Main Menu</u> → Configuration → Services as shown on the right.	Main Menu Administration Configuration Network Elements Services Resource Domains Servers Server Groups Places Place Associations Places Places Alarms & Events	Main Menu: Co Name OAM Replication Signaling HA_Secondary HA_MP_Secondary Replication_MP ComAgent	nfiguration - Intra-NE Network Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified Unspecified	> Services           Inter-NE Network           Unspecified           Unspecified
10.	<ul> <li>NOAMP Server A:</li> <li>1) The user will be presented with the "Services" configuration screen as shown on the right.</li> <li>2) Select the "Edit" dialogue button.</li> </ul>	Main Menu: Configuration -> S Name OAM Replication Signaling Melp Logout	Intra-NE Network Unspecified Unspecified Unspecified	Inter-NE Unspec Unspec Unspec	Help Thu Jan 12 16:19:44 2012 UTC Network ified ified

Step	Procedure		Result	
11.	NOAMP Server A:	Services		
	1) Set the services	Name	Intra-NE Network	Inter-NE Network
	values as shown on	OAM	IMI 🔻	XMI 🔻
	the right.	Replication		XMI
	-	Signaling		
	2) Select the "Annly"			YMI -
	dialogue button	HA_Secondary		
	dialogue batterit	HA_MP_Secondary	IMI •	XMI •
	3) Select the "OK"	Replication_MP	IMI 🔻	XMI •
	dialogue button in the	ComAgent	IMI 🔻	XMI 🔻
	popup window.		Ok Apply Cancel	
		Note: Servers do not need a installation. Note: ComAgent Service can Network. Please configure Service shall be configured Configure ComAgent Service on Si Note: ComAgent Service is communication.	OK Cancel to be restarted if this is also be configured to rur as shown above and continu d again later as described gnaling Network. used for NOAMP ⇔ MP and M	s a fresh h on Signaling µe. ComAgent d in Section 8.11 MP ⇔ MP
10	NOAMP Server A:	Namo	Intra NE Natwork	Inter NE Network
	<b>T</b> he success will be a	OAM	IMI	XMI
	The user will be	Replication	IMI	XMI
	"Services"	Signaling	Unspecified	Unspecified
	configuration screen	HA_Secondary	IMI	XMI
	as shown on the right	HA_MP_Secondary	IMI	XMI
	as shown on the light	Replication_MP	IMI	XMI
		ComAgent	IMI	XMI
13.	NOAMP Server A: Configuring OCUDR Server Select <u>Main Menu</u> → Configuration → Servers	Connected using 10.250.51.80 to	hostname1345220802 (ACTIVE NE Main Menu: Configurati Filter • Hostname Role	TWORK OAM&P) ON -> Servers Server Group Network Element
	as shown on the right.			

Step	Procedure	Result
14.	NOAMP Server A: Select the "Insert" dialogue button from the bottom left corner of the screen.	A Help Insert Delete Export Report
15.	NOAMP Server A: The user is now presented with the "Adding a new server" configuration screen.	Main Menu: Configuration -> Servers [Insert]         The Oct 14 16:30:00 :         Adding a new server         Attribute       Value       Description         Hostname       •       Select Role - •       Select the server [Default = n/a. Range = A 20-character string, Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.]         Role       • Select Role - • •       Select the function of the server         System ID       System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string.]         Hardware Profile       BL460 HP c-Class Blade       Hardware profile of the server         Network Element Name       - • • •       Select the network element         Location
16.	NOAMP Server A: Input the assigned "hostname" for the NOAMP-A Server.	Attribute         Value         Description           Hostname         NO-A         Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.]
17.	NOAMP Server A: Select "NETWORK OAM&P" for the server "Role" from the pull-down menu.	Role       - Select Role -       *       Select the function of the server         Hardware Profile       - Select Role -       Hardware profile of the server         Network Element       SYSTEM OAM       Select the network element         Name       QUERY SERVER       Location description [Default = "". Range = A 15
18.	NOAMP Server A: Input the "System ID" for the NOAMP Server.	System ID

Step	Procedure	Result
19.	NOAMP Server A: Select the correct Hardware Profile from the pull-down menu.	<ul> <li>Select Hardware Profile:</li> <li>UDR DL380 for RMS NOAMP installations</li> <li>BL 460 c-Class Blade for blade NOAMP installations</li> <li>UDR_NO_LowCapacity for NO virtual server installations</li> <li>UDR SO for SO virtual server installations (not used in this procedure)</li> <li>UDR MP for MP virtual server installations (not used in this procedure)</li> <li>Hardware Profile BL460 HP c-Class Blade  <ul> <li>Hardware profile</li> </ul> </li> </ul>
20.	NOAMP Server A: Select the Network Element Name from the pull-down menu. NOTE: After the Network Element Name is selected, the Interfaces fields will be displayed.	Network Element Name Select the network element
21.	<b>NOAMP Server A:</b> Enter the site location.	Location         Morrisville_NC         Location description [Default = "". Range = A 15-character string. Valid value is any text string.]
	<b>NOTE:</b> Location is an optional field.	
22.	<ul> <li>NOAMP Server A:</li> <li>1) Enter the XMI and IMI IP addresses for the OCUDR Server.</li> <li>2) Set XMI and IMI Interfaces according to to bond0. Check VLAN boxes.</li> </ul>	XMI (10.240.80.128/26)       10.240.80.146       bond0 <             IMI (10.240.56.192/26)       10.240.56.197       bond0 <
		Note: RMS Lab systems without bonded interfaces conform to Section 8 of [6]. Set XMI to "eth01", IMI to "eth02". VLAN boxes are <i>not</i> checked in this case.

Step	Procedure	Result
23.	NOAMP Server A:	NTP Servers:
	Click the "Add" button under NTP Servers and add the address of thecustomer supplied NTP server. Note: This step may be repeated for as many NTP servers as the customer supplies. Note: In case of NOAMP virtual server: Set the NTP Server IP Address to the TVOE	NTP Server IP Address     Prefer       Add     Image: Comparison of the server of the
	server hosting the NO.	
24.	<ul> <li>NOAMP Server A:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Click the "Apply" dialogue button.</li> </ul>	Main Menu: Configuration -> Servers [Insert]
25.	NOAMP Server A: 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.	Main Menu: Configuration -> Servers [Insert]

Step	Procedure		F	Result		
26.	NOAMP Server A: Applying the OCUDR Server Configuration File Select <u>Main Menu</u> → Configuration → Servers as shown on the right.	Connected using XMI to Main Menu Administration Configuration Network Elem Servers Servers Server Groups	hostname134522080 Main M Filter Hostname	2 (ACTIVE NETW lenu: Configu Role Netw	ORK OAM&P) Uration -> Sen Ork OAM&P	Servers ver Group
27.	NOAMP Server A: The "Configuration →Servers" screen should now show the newly added OCUDR Server in the list.	Main Menu: Configu Filter - Hostname Role NO-A Netwo	rk OAM&P	Network Element ETS3_NO_NE	Fri Aug	Help     17 17:58:21 2012 UTC     Details     XMI: 10.250.51.80
28.	<ul> <li>NOAMP Server A:</li> <li>1) Use the cursor to select the OCUDR</li> <li>Server entry added in Steps 14 - 25.</li> <li>The row containing the desired Server should now be highlighted in GREEN.</li> <li>2) Select the "Export" dialogue button.</li> </ul>	Main Menu: Configu Filter  Hostname Role NO-A Netwo	Server Group	Network Element ETS3_NO_NE	Fri Aug	<ul> <li>Help</li> <li>17 17:58:21 2012 UTC</li> <li>Details</li> <li>XMI: 10.250.51.80</li> <li>Pause updates</li> </ul>
29.	NOAMP Server A: The user will receive a banner information message showing a download link for the OCUDR Server configuration data.	Main Menu: Configu Filter Info Filter Filte	xported server data in TKLC vas created and store ve a file name like T	rs ConfigData.NO-A.sh d in the /var/TKI FKLCConfigDa	Fri Aug may be downloade LC/db/filemgm ata. <th>Help     17 18:01:20 2012 UTC     Is     10.250.51.80      th directory. The     ame&gt;. sh.</th>	Help     17 18:01:20 2012 UTC     Is     10.250.51.80      th directory. The     ame>. sh.

Step	Procedure	Result
30	NOAMP Server A:	login as: admusr
	1) Access the command prompt.	root@10.250.xx.yy's password: <admusr_password> Last login: Mon Jul 30 10:33:19 2012 from 10.25.80.199 [root@pc9040833-no-a ~]#</admusr_password>
	<b>2)</b> Log into the NOAMP-A server as the " <b>admusr</b> " user	
31.	NOAMP Server A:	*** TRUNCATED OUTPUT ***
	Output similar to that shown on the right will appear as the server access the command prompt.	<pre>VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomcol/cm5.16 PRODPATH= RELEASE=5.16 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC /awptransportmgr:/usr/TKLC/awpss7:/usr/TKLC/exhr PRODPATH=/opt/comcol/prod RUNID=00 [admusr@pc9040833-no-a ~]#</pre>
32.	NOAMP Server A:	[admusr@ pc9040833-no-a ~]\$ <b>su -</b>
	Switch to " <b>root</b> " user.	password: <root_password></root_password>
33	NOAMP Server A:	Example:
	Copy the <b>server</b> configuration file to the "/var/tmp" directory on the server, making sure to rename the file by omitting the server hostname from the file name.	<pre>TKLCConfigData&lt;.server_hostname&gt;.sh → will translate to →TKLCConfigData.sh # cp -p /var/TKLC/db/filemgmt/TKLCConfigData.NO-A.sh /var/tmp/TKLCConfigData.sh</pre>
	<b>NOTE:</b> The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.	

Step	Procedure	Result
34.	NOAMP Server A:	*** NO OUTPUT FOR $\approx$ 3-20 MINUTES ***
	After the script completes, a broadcast message will be sent to the	Broadcast message from root (Thu Dec 1 09:41:24 2011):
	terminal.	See /var/TKLC/appw/logs/Process/install.log for details.
	Ignore the output shown and press the <b><enter></enter></b> key to return to the command prompt.	Please remove the USB flash drive if connected and reboot the server. <b><enter></enter></b>
	<b>NOTE:</b> The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.	
35.	NOAMP Server A:	<pre># set_ini_tz.pl <time zone=""></time></pre>
	Configure the time zone.	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.
		<pre># set_ini_tz.pl "America/New_York"</pre>
36.	NOAMP Server A:	# init 6
	Initiate a reboot of the <b>NOAMP Server</b> .	
37.	NOAMP Server A:	Wait about 9 minutes until the server reboot is done.
	Wait until server reboot is done. Then, SSH into the NOAMP-	Using an SSH client such as putty, ssh to the NOAMP-A server.
	A server.	login as: admusr
	Output similar to that	Last login: Mon Jul 30 10:33:19 2012 from 10.25.80.199
	shown on the right may be observed	Lase royan. Non our so ro.ss.rs 2012 from ro.25.00.199
		Note: If the server isn't up, wait a few minutes and re-enter the ssh command. You can also try running the "ping" command to see if the server is up.

# **Procedure 11:** Configuring NOAMP-A Server (1<sup>st</sup> NOAMP site only)

Step	Procedure	Result
38.	NOAMP Server A:	*** TRUNCATED OUTPUT ***
	Output similar to that shown on the right will appear as the server access the command prompt.	<pre>VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomcol/cm5.16 PRODPATH= RELEASE=5.16 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC /awptransportmgr:/usr/TKLC/awpss7:/usr/TKLC/exhr PRODPATH=/opt/comcol/prod RUNID=00 [admusr@pc9040833-no-a ~]\$</pre>
39.	NOAMP Server A:	[admusr@ pc9040833-no-a ~]\$ <b>su -</b> password: <b><root_password></root_password></b>
	Switch to <b>"root</b> " user.	
40.	NOAMP Server A: Verify that the XMI and IMI IP addresses entered in Step 22 have been applied NOTE: The server's XMI and IMI addresses can be verified by reviewing the server	<pre># ifconfig  grep in  grep -v inet6 bond0.3 Link encap:Ethernet HWaddr F0:92:1C:18:59:10</pre>
	configuration through the OCUDR GUI. i.e. <u>Main Menu</u> → Configuration	
	→ Servers	
	Scroll to line entry containing the server's <b>hostname.</b>	
<b>4</b> 1	NOAMP Server A:	# ntpq -np
	Use the "ntpq"	remote refid st t when poll reach delay offset jitter
	command to verify that the server has connectivity to the assigned Primary (and Secondary if one was provided) NTP server(s).	*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
		( TO THE NTP SERVER(S) CANNOT BE ESTABLISHED. STOP AND EXECUTE THE



FOLLOWING STEPS:

Step	Procedure	Result
•	Have the customer IT g	roup provide a network path from the OAM server IP to the assigned NTP IP addresses.
ONCE PROCI	NETWORK CONNECTIV EDURE BEGINNING WIT	ITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN RESTART THIS H STEP 36.
42.	NOAMP Server A: Execute a "alarmMgr" to verify the current health of the server	<pre># alarmMgralarmStatus NOTE: This command should return no output on a healthy system. If any alarms are reported as SNMP traps, please contact My Oracle Support (MOS) for assistance.</pre>
43.	NOAMP Server A: Exit the SSH session for the NOAMP-A server	# exit
<b>44.</b>	NOAMP Server A: Verify that you can log back into the GUI.	Certificate Error: Navigation Blocked - Windows Internet Explorer  Co
	Launch an approved web browser and connect to the NOAMP Server A IP address.	Certificate Error: Navigation Blocked      There is a problem with this website's security certificate.      The security certificate presented by this website was not issued by a trusted certificate authority.     The security certificate presented by this website was issued for a different website's address.
	NOTE: If presented with the "security certificate" warning screen shown to the right, choose the following option: "Continue to this website (not recommended)".	<ul> <li>Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.</li> <li>We recommend that you close this webpage and do not continue to this website.</li> <li>© Click here to close this webpage.</li> <li>© Continue to this website (not recommended).</li> <li>⊙ More information</li> </ul>
	recommended)".	





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

This procedure is used to create and configure all OCUDR Servers (Primary and DR servers) except the first NOAMP-A server.

#### **Requirements:**

- Procedure 3: Create, IPM and Install Application on all Virtual Machines OR
- Procedure 5: Create, IPM and Install Application on all Virtual Machines OR
- Procedure 8: Create, IPM and Install Application on all Virtual Machines (SO Network Elements) OR
- **Procedure 10: Create, IPM and Install Application on all Virtual Machines** has been completed on all servers being configured by this procedure.
- Procedure 11: Configuring NOAMP-A Server has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

#### Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result	
1.       NOAMP Server A:         Launch an approved web browser and connect to the NOAMP Server A IP address       Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer       Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer       Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer       Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer       Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer       Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer       Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer       Image: Certificate Error: Navigation Blocked - Windows Internet Explorer			
	NOTE: If presented with the security warning screen shown to the right, choose the following option: "Proceed to xxx.xx.xx (unsafe)".	<ul> <li>The security certificate presented by this website was not issued by a trusted certificate authority. The security certificate presented by this website was issued for a different website's address.</li> <li>Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.</li> <li>We recommend that you close this webpage and do not continue to this website.</li> <li>Click here to close this webpage.</li> <li>Continue to this website (not recommended).</li> <li>More information</li> </ul>	

Procedure 12:	Create	Configuration	for	Remaining	Servers
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Step	Procedure	Result
2.	NOAMP Server A: The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login         Thu Nov 17 16:03:36 2011 UTC         Log In         Enter your username and password to log in         Username: guiadmin         Password:       Change password         Change password       Change password         Log In       Velcome to the Tekelec System Login.         Velcome to the Tekelec System Login.         Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0 or 8.0 with support for JavaScript and cookies.
3.	NOAMP Server A: The user should be presented the OCUDR Main Menu as shown on the right.	Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&P)   Main Menu   Main Menu   Administration   Configuration   Alarms & Events   Security Log   Status & Manage   Measurements   Communication Agent   UDR   Diameter   Help   Logout
Note: NOAM NOAM	The following steps need P-A server. That check I P-A server at the Disaste	to run for all servers EXCEPT the first NOAMP-A server. These steps include a check box for box is only referring to NOAMP-A servers that are not at the primary provisioning site, such as the er Recovery (DR) site.
4.	NOAMP Server A: Configuring Network Element Select <u>Main Menu</u> → Configuration	Connected using 10.250.51.80 to hostname1345220802 (ACTIVE NETWORK OAM&P)  Main Menu Administration Configuration Network Elements Services Services Servers
	→ Network Elements …as shown on the right.	NOAMP-A       NOAMP-B       SOAM-A       SOAM-B         MP-1       MP-2       MP-3       MP-4

Procedure 12:	Create Configuration for Remaining Servers	

Step	Procedure	Result
5.	NOAMP Server A: Look for the Network Element into which you are installing servers. Note: You may have to left mouse click the "Info" banner option in order to see the banner output.	Main Menu: Configuration -> Network Elements          Filter       Info         Network Element         NO_UDR_VM         • If the Network Element you need is already present, skip to Step 10.         • Otherwise, continue with the next step.         NOAMP-A       NOAMP-B       SOAM-A       SOAM-B
6.	NOAMP Server A: From the Configuration / Network Elements screen Select the "Browse" dialogue button (scroll to bottom left corner of screen).	MP-1       MP-2       MP-3       MP-4         Main Menu: Configuration -> Network Elements       Image: Arrow of the privation of the

Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result
7.	NOAMP Server A: Note: This step assumes that the xml files were previously prepared, as described in Appendix N.	♀ common_public (\\sszna01.ssz.tekelec.com) (T:   ♀ public (\\corp-filer.tekelec.com) (W:)   ♀ view (\) (Z:)   ♀ view (\) (Z:)     ▶ UDR_SO_Netra_28     ♥ UDR_SO_Netra_28     ♥ UDR_SO_Netra_28     ♥ IUR_SO_Netra_28     ♥ IUR_SO_Netra_28     ♥ IUR_SO_Netra_28     ♥ IUR_SO_Netra_28     ♥ IUR_SO_Netra_28     ♥ IUR_SO_Netra_28     ♥ All Files
	<ol> <li>Select the location containing the site</li> <li>.xml file.</li> </ol>	Open 🔫 Cancel
	2) Select the .xml file and click the "Open" dialogue button.	NOAMP-A       NOAMP-B       SOAM-A       SOAM-B         MP-1       MP-2       MP-3       MP-4
8.	NOAMP Server A: Select the "Upload File" dialogue button (bottom left corner of screen).	To create a new Network Element, upload a valid configuration file:         Choose File       UDR_SO_Netra_28.xml         Upload File         Insert       Delete         Export       Report         NOAMP-A       NOAMP-B       SOAM-A         MP-1       MP-2       MP-3       MP-4
9.	NOAMP Server A: 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. Note: You may have to left mouse click the "Info" banner option	Main Menu: Configuration -> Network Elements          Filter       Info         Info       I
	in order to see the banner output.	

Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result		
10.	NOAMP Server A:	Connected using XMI to NO-A (ACTIVE NETWORK OAM&P)		
	Select	Main Menu         Administration    Main Menu: Configuration -> Servers		
	<u>Main Menu</u>	Configuration Filter Filter		
	→ Configuration → Servers	- Services - Server Group Network Element		
	as shown on the right.	Server Groups NO-A Network OAM&P ETS3_NC		
		• "Check off" the associated Check Box as addition is completed for each Server.		
		□ NOAMP-A □ NOAMP-B □ SOAM-A □ SOAM-B		
		MP-1 MP-2 MP-3 MP-4		
11.	NOAMP Server A: Select the "Insert" dialogue button.	A Help Insert Delete Export Report		
		• "Check off" the associated Check Box as addition is completed for each Server.		
		NOAMP-A NOAMP-B SOAM-A SOAM-B		
		MP-1 MP-2 MP-3 MP-4		

Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result		
12	NOAMP Server A:	Main Menu: Configuration -> Servers [Insert]		
	The user is now	Tue Oct 14 16:07:40 2		
	presented with the "Adding a new	Adding a new server		
	server" configuration	Attribute Value Description		
	screen.	Hostname   Unique name for the server. [Default = n/a. Range = A 20-character string. Valid characters are alphanumeric and minus sign. Must add with a clabeaure data.		
		Role - Select Role -  Select Role -		
		System ID for the NOAMP or SOAM server. [Default = n/a. Range = A		
		Hardware Profile UDR SO   Hardware profile of the server		
		Network Element Name - Unassigned - 💌 • Select the network element		
		Location description [Default = ". Range = A 15-character string. Valid value is any text string.]		
		Ok Apply Cancel		
		• "Check off" the associated Check Box as addition is completed for each Server.		
		NOAMP-A NOAMP-B SOAM-A SOAM-B		
		□ MP-1 □ MP-2 □ MP-3 □ MP-4		
	NOAMP Server A:	Attribute Value Description		
13.		Unique name for the server. [Default = n/a. Range = A 20-character		
	"hostname" for the	Hostname NO-B * string. Valid characters are alphanumeric and minus sign. Must start with an alphanumeric and end with an alphanumeric.]		
	server.			
		• "Check off" the associated Check Box as addition is completed for each Server.		
		NOAMP-A NOAMP-B SOAM-A SOAM-B		
		□ MP-1 □ MP-2 □ MP-3 □ MP-4		
	NOAMP Server A:			
14.	Select the	Role - Select Role - 💉 Select the function of the server		
	appropriate server	Hardware Profile		
	"Role" from the pull-	Network Element SYSTEM OAM		
	down mond.	Name MP Select the network element		
		Location Location description [Default = "". Range = A 15		
		"Check off" the associated Check Box as addition is completed for each Server.		
		NOAMP-A NOAMP-B SOAM-A SOAM-B		
		MP-1 MP-2 MP-3 MP-4		
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Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result		
15.	NOAMP Server A: Input the "System ID" for the server. NOTE: System ID is not required for MP.	System ID       NOAMP       System ID for the NOAMP or SOAM server. [Default = n/a. Range = A 64-character string. Valid value is any text string.]         • "Check off" the associated Check Box as addition is completed for each Server.         NOAMP-A       NOAMP-B       SOAM-A		
	NOAMP Server A:	MP-1     MP-2     MP-3     MP-4       Select Hardware Profile:		
16.	Select the correct Hardware Profile from the pull-down menu.	<ul> <li>Select Hardware Profile:</li> <li>UDR DL380 for RMS NOAMP installations</li> <li>BL460 HP c-Class Blade for Normal Capacity C-Class NOAMP installations</li> <li>UDR_NO_LowCapacity for NO virtual server installations</li> <li>UDR SO for SO virtual server installations</li> <li>UDR MP for MP virtual server installations</li> </ul>		
		Hardware Profile UDR SO   Hardware profile of the server Hardware profile of the server Hardware profile of the server		
		Image: Solution of the associated one of box as addition is completed to each dervel.         Image: NOAMP-A       NOAMP-B       SOAM-A       SOAM-B         Image: MP-1       MP-2       MP-3       MP-4		
17.	NOAMP Server A: Select the Network Element Name from the pull-down menu.	Network Element Name Select the network element		
	<b>NOTE:</b> <i>After the</i> <i>Network Element</i> <i>Name is selected, the</i> <i>Interfaces fields will</i> <i>be displayed.</i>	"Check off" the associated Check Box as addition is completed for each Server.     NOAMP-A NOAMP-B SOAM-A SOAM-B		
	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.	☐ MP-1 ☐ MP-2 ☐ MP-3 ☐ MP-4		

Procedure 12:	Create Configuration for	<b>Remaining Servers</b>
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Step	Procedure	Result		
18.	NOAMP Server A: Enter the site	Location         Morrisville_NC         Location description [Default = ". Range = A 15-character string. Valid value is any text string.]		
	NOTE: Location is an optional field.	<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> <li>NOAMP-A NOAMP-B SOAM-A SOAM-B</li> <li>MP-1 MP-2 MP-3 MP-4</li> </ul>		
19.	NOAMP Server A:       Interfaces:         1) Enter the XMI and       Interfaces:         IMI IP addresses for       XMI (10.240.37.128/26)         IMI (10.240.37.192/27)       Imi          2) Set the XMI and       Interface according to deployment type:			
	deployment type.	<ul> <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><i>NOAMP</i>: Set both XMI and IMI to bond0. Check all VLAN boxes. (Not for Low Capacity Systems)</li> <li>Note: In case of NOAMP virtual server on Low Capacity C-Class or Low Capacity RMS</li> </ul>		
		<ul> <li>systems, Set XMI to "xmi" and set IMI to "imi". VLAN boxes are <i>not</i> checked.</li> <li>Note: RMS NOAMP Lab systems without bonded interfaces conform to Section 8 of [6]. Set XMI to "eth01" and IMI to "eth02". VLAN boxes are <i>not</i> checked in this case.</li> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>		
		NOAMP-A       NOAMP-B       SOAM-A       SOAM-B         MP-1       MP-2       MP-3       MP-4		

Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result
20.	NOAMP Server A: Click the "Add" button under NTP Servers and add the address(s) of the NTP server(s).	NTP Servers: NTP Server IP Address Add Remove
		<ul> <li>NTP Server according to server type:</li> <li>NOAMP: Set one ore more NTP Server IP Address(es) to customer supplied NTP server(s).</li> <li>SOAM and MP: Set the NTP Server IP Address to the host server, given as "<tvoe_xmi_address>" in Appendix L Configure TVOE Network.</tvoe_xmi_address></li> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>
		NOAMP-A       NOAMP-B       SOAM-A       SOAM-B         MP-1       MP-2       MP-3       MP-4

### Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result
21.	<ul> <li>NOAMP Server A:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Click the "Apply" dialogue button.</li> </ul>	Main Menu: Configuration -> Servers [Insert]         Info         Interfaces:         Network         Interfaces:         Network         Interfaces:         Network         Interfaces:         Network         Interfaces:         Network         Interfaces:         NUL(10.240.80.128/26)         Interfaces
		IMI (10.240.56.192/26)       10.240.56.212       imi         Ok Apply Cancel         • "Check off" the associated Check Box as addition is completed for each Server.         NOAMP-A       NOAMP-B       SOAM-A       SOAM-B         MP-1       MP-2       MP-3       MP-4
22.	NOAMP Server A: If the values provided match the network ranges assigned to the OCUDR NE, the user will receive a banner information message showing that the data has been validated and committed to the DB.	Main Menu: Configuration -> Servers [Insert]         Info         Info         • Data committed!         Hostname         NO-B         • "Check off" the associated Check Box as addition is completed for each Server.         NOAMP-A       NOAMP-B         MP-1       MP-2         MP-3       MP-4

Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result
23.	NOAMP Server A:	Connected using XMI to NO-A (ACTIVE NETWORK OAM&P)
	Applying the Server Configuration File	■ Administration ■ Configuration ■ Network Elements
	Select	Services Hostname Role Server Group Network Element
		Server Groups NO-A Network OAM&P ETS3_NO_NE
	<u>Main Menu</u> → Configuration	Network     NO-B     Network OAM&P     ETS3_NO_NE     Alarms & Events
	→ Servers	. "Check off" the ecception of the barries and this is completed for each 2 minut
	as shown on the right.	• "Cneck off" the associated Cneck Box as addition is completed for each Server.
		NOAMP-A NOAMP-B SOAM-A SOAM-B
		MP-1 MP-2 MP-3 MP-4
24.	NOAMP Server A:	Normal or Low Capacity Configuration:
	The <b>"Configuration</b> →Servers" screen should now show the newly added OCUDR Server in the list.	Main Menu: Configuration -> Servers
		Filter
		Hostname         Role         Server Group         Network Element         Location         Details
		NO-A Network OAM&P ETS3_NO_NE Morrisville_NC XMI: 10.250.51.80
		NO-B Network OAM&P ETS3_NO_NE Morrisville_NC XMI: 10.250.51.81
		Single Server Configuration:
		Hostname         Role         System ID         Server Group         Network Element         Location         Place         Details
	C	Network OAM&P         NO_SUN_05         XMI: 10.240.15.41           S0-A         Svstem OAM         SOA         SO SUN_05         XMI: 10.240.15.44
		"Check off" the associated Check Box as addition is completed for each Server
		NOAMP-A INOAMP-B SOAM-A SOAM-B
		MP-1 MP-2 MP-3 MP-4
Procedure 12:	<b>Create Configuration</b>	for Remaining Servers
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Step	Procedure				F	Resu	lt			
25.	NOAMP Server A: 1) Use the cursor to select the OCUDR Server entry added	Normal or Low Capacity Configuration: Main Menu: Configuration -> Servers								
	in Steps 10 - 22.					Netu	vork			
	<b>-</b>	Hostname	Role	Sen	ver Group	Elem	ient	Location	D	etails
	The row containing the desired <b>Server</b>	NO-A	Network OA	AM&P		ETS	3_NO_NE	Morrisville_N	IC XI	MI: 10.250.51.80
	No-B     Network OAM&P     ETS3_NO_NE     Morr       highlighted in     GREEN.     GREEN     GREN <td< th=""><th>Morrisville_N</th><th>IC XI</th><th>MI: 10.250.51.81</th></td<>		Morrisville_N	IC XI	MI: 10.250.51.81					
		Insert Delete	Export R	Report		000				Pause updates
	<ol> <li>Select the</li> <li>"Export" dialogue</li> <li>button.</li> </ol>	Single Server Cor	nfiguration	.:						
		Hostname F	Role S	System ID	Server	Group	Network Element	Location	Place	Details
		NO-A N	Network OAM&P N	IOAMP			NO_SUN_05			XMI: 10.240.15.41
		SO-A S	System OAM S	MAO			SO_SUN_05			XMI: 10.240.15.44
		NOAMI	P-A [	_ NC	)AMP- ?-2	В	SC MF	DAM-A P-3		SOAM-B
26.	NOAMP Server A:	Main Menu: C	onfigura	tion ->	Servers	5				🤣 Help
	The user will receive	Filter - Info	•						– Fri Au	g 17 14:30:08 2012 EDT
	a banner information message showing a download link for the <b>OCUDR Server</b> configuration data.	Hostname       Info       Sails         NO-A       • Exported server data in TKLCConfigData.NO-B.sh may be downloaded       : 10.250.51.80         NO-B       Network OAM&P       ETS3_NO_NE       Morrisville_NC       XMI: 10.250.51.81					ails : 10.250.51.80 XMI: 10.250.51.81			
		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. <hostname>.sh.   • "Check off" the associated Check Box as addition is completed for each Server.</hostname>								
			P-A [	] NC	DAMP-	В	so	DAM-A		SOAM-B
		MP-1		MP	<b>'-</b> 2		MF	-3		_ MP-4

## Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result							
27.	NOAMP Server A: Click on the "downloaded" link inside the Info box.	Main Menu: Configuration -> Servers       Fri Aug 17 14:30:08 20         Filter       Info         Hostname       is         NO-A       Exported server data in TKLCConfigData.NO-B.sh may be downloaded         NO-B       Network OAM&P         ETS3_NO_NE       Morrisville_NC         XM: 10.250.51.3         NO-B       NOAMP-A         NOAMP-A       NOAMP-B         SOAM-A       SOAM         MP-1       MP-2         MP-3       MP-4	Help D12 EDT 80 81 1-B						

Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result
28.	<ul> <li>NOAMP Server A:</li> <li>1) Click the "Save" dialogue button.</li> <li>2) Save the configuration file to a USB flash drive.</li> <li>3) Click the "Close" dialogue button</li> </ul>	File Download       X         Do you want to open or save this file?       Image: TKLCConfigData.sds-mrsvnc-a.sh         Type: sh_auto_file       Type: sh_auto_file         From: 10.250.55.124       Image: Triangle of the same of the
		Save As Save jr: USB [E:] Wy Recent Decknop Decknop Wy Documents Wy Documents File game: KLCContipData adamtevno:a Bf Save as type: sh Document Save Cancel
		Download complete       Image: ConfigDeta.sds-mrsvnc-a.sh       3         Download complete       Image: ConfigDeta.sds-mrsvnc-a.sh       3         Download to:       E:\TKLCConfigDeta.sds-mrsvnc-a.sh       1massient for the completes         Image: Close this dialog box when download completes       Image: Close       1massient for the associated Check Box as addition is completed for each Server.         Image: NOAMP-A       NOAMP-B       SOAM-A       SOAM-B         Image: MP-1       MP-2       MP-3       MP-4

## Procedure 12: Create Configuration for Remaining Servers

Step	Procedure	Result						
	Note: The ste in the "Check	s above may be completed for one or all servers listed Off" section before continuing						
29.	NOAMP Server A: Apply server configuration scripts.	<ul> <li>Use the configuration scripts created and exported in the steps above to apply configuration to each server:</li> <li>For rack mount NOAMP and DR servers: Follow Appendix K.1 Applying Server Configuration with ILO</li> <li>For other servers: Follow Appendix K.2 Applying Server Configuration with PM&amp;C</li> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> <li>NOAMP-A NOAMP-B SOAM-A SOAM-B</li> </ul>						
		MP-1 MP-2 MP-3 MP-4						
30.	TVOE Servers:	** Don't execute on Low Capacity C-Class Systems.						
	Add <b>NOAMP-B</b> servers as second NTP server for all TVOE hosts.	<ul> <li>Follow AppendixL.4: Configure Additional NTP Server to add NOAMP-B to each TVOE host server as a second NTP Server.</li> <li><i>Note:</i> If NOAMP-B is running on a virtual machine, use the management IP of its TVOE host instead for an NTP server.</li> <li>TVOE Host (SOAM-A, MP-1, MP-2)</li> </ul>						
		TVOE Host (SOAM-B, MP-3, MP-4)						
		THIS PROCEDURE HAS BEEN COMPLETED						

# 8.3 Configure XSI Networks (All SOAM Sites)

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

#### **Requirements:**

• Procedure 12: Create Configuration for Remaining Servers has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

Procedure 13: Configure XSI Networks

Step	Procedure	Result					
1.	NOAMP Server A	Certificate Error: Navigation Blocked - Windows Internet Explorer					
	Launch an						
	approved web browser and	File Edit View Favorites Tools Help					
	IP address	😪 🕸 🖉 Certificate Error: Navigation Blocked					
	assigned to NOAMP Server A using <u>https://</u>	There is a problem with this website's security certificate.					
	<b>NOTE:</b> If presented with the	The security certificate presented by this website was not issued by a trusted certificate authority. The security certificate presented by this website was issued for a different website's address.					
	"security certificate"	Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.					
	warning screen We recommend that you close this webpage and do not continue to this website.						
	shown to the right,	Ø Click here to dose this webpage.					
	cnoose the Second continue to this website (not recommended).						
	"Continue to this						
	website (not recommended)".						
2.	NOAMP Server A						
	The user should be presented the login screen shown on the right.	Tekelec System Login Thu Nov 17 16:03:36 2011 UTC					
	Login to the GUI using the default user and password.	Log In Enter your username and password to log in Username: guiadmin Password: ••••••					
	· · · · · · · · · · · · · · · · · · ·	Change password					
		Log In					
		Welcome to the Tekelec System Login.					
		Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0 or 8.0 with support for JavaScript and cookies.					



Step	Procedure		Result						
3.	NOAMP Server A The user should be presented the Main Menu as shown on the right.	Connected using XMI to pc90007 Main Menu Administration	GLE XG User 0-10.0.0_10.1.0 24-no-a (ACTIVI Main Ment	Data ENETWO	Repos ork oa ain]	sitory M&P)			
		<ul> <li>Configuration</li> <li>Alarms &amp; Events</li> <li>Security Log</li> <li>Status &amp; Manage</li> <li>Measurements</li> <li>Communication Agent</li> <li>UDR</li> <li>Diameter</li> <li>Help</li> <li>Logout</li> </ul>							
4.	NOAMP Server A Select	Connected using VIP to pc900077	24-no-a (ACTIVE Main Men	u: Coi	ork oa nfigu	<sup>M&amp;P)</sup> ratior	n -> Network	M	/elcome <b>guiad</b> ri Feb 28 10:46
	<u>Main Menu</u> → Configuration → Network	<ul> <li>Configuration</li> <li>Network Elements</li> <li>Network</li> <li>Services</li> <li>Servers</li> </ul>	Network Name	Locked	Routab	VLAN	Network	Configu Interfac	Network Eleme
	as shown on the right.		IMI XMI	Yes Yes	Yes Yes	21 20	10.240.37.192/27 10.240.37.128/26	2 0	NO_UDR
		🛨 🧰 DSCP	IMI	Yes	Yes	21	10.240.37.192/27	0	SO_UDR

## Procedure 13: Configure XSI Networks

Step	Procedure	Result						
5.	NOAMP Server A Add the XSI1 network	Click the Insert button. Output similar to that shown below may be observed. Insert Network						
		Field	Value	Description				
		Network Name	XSI1 *	The name of this network. [Default = N/A. Range = Alphanumeric string up to 31 chars, starting with a letter.]				
		Network Element	- Unassigned - 🔹 *	The network element this network is a part of. If not specified, the network will be available to servers in all network elements.				
		VLAN ID	17 *	The VLAN ID to use for this network. [Default = N/A. Range = 1-4094.]				
		Network Address	10.240.162.96 *	The network address of this network. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.]				
		Netmask	255.255.255.224 *	Subnetting to apply to servers within this network. [Default = N/A. Range = Valid Netmask for the network in prefix length (IPv4 or IPv6) or dotted decimal (IPv4) format.]				
		Router IP	10.240.162.97	The IP address of a router on this network. If this is a default network, this will be used as the gateway address of the default route on servers with interfaces on this network. If customer router monitoring is enabled, this address will be the one monitored.				
		Default Network	_Yes ⊚No	A selection indicating whether this is the network with a default gateway.				
		Routable	®Yes ⊙No	Whether or not this network is routable outside its network element. If it is not assigned to a network element, it is assumed to be possibly present in all network elements.				
				Ok Apply Cancel				
		Enter all of the above fields for the XSI1 network according to the customer's network parameters. The default values for Network Element (Unassigned), Default Network (No) and Routable (Yes) should be retained. If ComAgent Service is is configured to run on XSI1 in Section 8.11 Configure ComAgent Service on Signaling Network, this network would be used for MP⇔NOAMP ComAgent Traffic.						
		Note: Networ	k names can be ove	rloaded to support multiple subnets. If defining network for				
				work harre for Frindry and Div oite.				
<b>6</b> .	Repeat <b>Step 5</b> of this	procedure to I	nsert additional sign	aling networks (XSI2, etc) as required.				

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#### Procedure 13: Configure XSI Networks

1	Troobadio	Result								
7.	NOAMP Server A	Main Menu: Configuration -> Network								
	New XSI network is displayed along	Info 👻								
	with a success message.	Info	work 'XSI1' v	was succes	ssfullvinse	erted.	ork	Configure Interfaces	Network	
							10.162.0/26	2	NO_UD	
		IMI	Yes	Yes	16	10.24	40.162.64/27	2	NO_UD	
		XMI	Yes	Yes	15	10.24	40.162.0/26	6	SO_UDI	
		IMI	Yes	Yes	16	10.24	40.162.64/27	6	SO_UDI	
		XMI	Yes	Yes	23	10.24	40.162.192/26	2	NO_UD	
		IMI	Yes	Yes	21	10.24	40.162.128/27	2	NO_UD	
		XMI	Yes	Yes	23	10.24	40.162.192/26	6	SO_UDI	
		IMI	Yes	Yes	21	10.24	40.162.128/27	6	SO_UDI	
		XSI1	No	Yes	17	10.24	40.162.96/27	0		

# **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 12: Create Configuration for Remaining Servers has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

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

Step	Procedure	Result					
1.	NOAMP Server A: Launch an approved web browser and connect to the XMI IP address assigned to NOAMP Server A using "https://"	Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Control of the second se					
2.	NOAMP Server A: The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login         Thu Nov 17 16:03:36 2011 UTC         Image: Comparison of the transment of the tr					
3.	NOAMP Server A: The user should be presented the Main Menu as shown on the right.	EAGLE XG User Data Repository 10.0.0-10.0.0_10.1.0 Connected using XMI to pc9000724-no-a (ACTIVE NETWORK 0AM&P) Main Menu Main Menu Main Menu Main Menu: [Main] Main Menu: [Main]					

Step	Procedure	Result						
4.	NOAMP Server A:	Connected using VIP to pc900	0724-no-a (ACTIVE NETWORK OAM	-no-a (ACTIVE NETWORK OAM&P)				
	Configuring Server Group Select	<ul> <li>Administration</li> <li>Configuration</li> <li>Network Elements</li> <li>Network</li> <li>Services</li> <li>Servers</li> </ul>	Filter  Server Group Name Level	Parent Function Connection Servers				
	Main Menu → Configuration → Server Groups	Server Groups						
	as snown on the right.							
5.	<ul> <li>NOAMP Server A:</li> <li>1) The user will be presented with the "Server Groups" configuration screen as shown on the right.</li> <li>2) Select the "Insert" dialogue button from the bottom left corner of the screen.</li> <li>NOTE: The user may need to use the vertical scroll-bar in order to make the "Insert" dialogue button visible.</li> </ul>	Main Menu: Configuration -> Filter  Server Group Name Level Parent	Server Groups	Thu Oct 16 17:07:42 2014 EDT ert Edit Delete Report 2				
<u> </u>	NOAMP Server A:	Field	Value	Description				
<b>б.</b>	The user will be presented with the	Server Group Name	*	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.]				
	[Insert]" screen as shown on the right.	Level	- Select Level - 💌	Select one of the Levels supported by the system. [Level A groups contain NOAMP and Query servers. Level B groups are optional and contain SOAM servers. Level C groups contain MP servers.]				
	-	Parent	- Select Parent - 💌 *	Select an existing Server Group or NONE				
		Function	- Select Function -	Select one of the Functions supported by the system				
		WAN Replication Connection Count		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.]				
			Ok Apply	Cancel				

Procedure 14: OAM	Pairing for the	Primary NOAMP	Servers

Step	Procedure	Result				
7.	NOAMP Server A: Input the Server Group Name.	<b>Field</b> Server Group Name	Value	De: Ur str an	<b>scription</b> hique identifier used to label a Sei ring. Valid characters are alphanu id must not start with a digit.]	ver Group. meric and ι
8.	NOAMP Server A: Select "A" on the "Level" pull-down menu.	Level Parent	- Select Level - - Select Level -	Sel Que cor Sel	ect one of the Levels supported b ery servers. Level B groups are op itain MP servers.] lect an existing Server Group or No	y the system. vtional and co DNE
9.	NOAMP Server A: Select "None" on the "Parent" pull-down menu.	Parent Function	- Select Parent- 💙 * - Select Parent- NONE *		Select an existing Server Gro Select one of the Functions s	up or NONE upported by
10.	NOAMP Server A: Select "UDR-NO" on the "Function" pull- down menu.	Function	UDR-	NO	*	
11.	NOAMP Server A: Input value "8" into "WAN Replication Connection Count".	WAN Replica	ation Connection Count 8			Specify the n associated v

Step	Procedure	Result					
12.	<ul> <li>NOAMP Server A:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Select the "Apply" dialogue button.</li> </ul>	Main Menu: Info • Info Info • Pre-	Configuratio	n -> Serve	r Groups [I	nsert] o label a Ser alid characte ha and must	1 ver Group rs are alp not start
		Field Server Group Name Level Parent Function WAN Replication Connection Count	Value NO_grp A Value A Value V	Description           Unique identifier used to la characters are alphanumer with a digit.]           Select one of the Levels su servers. Level B groups are servers.]           Select an existing Server G           Select one of the Functions           Specify the number of TCP associated with this Server           Ok, Apply, Cancel	bel a Server Group. [Default = n/a ic and underscore. Must contain i opported by the system. [Level A g optional and contain SOAM serv roup or NONE supported by the system connections that will be used by i Group. [Default = 1. Range = An i	. Range = A 1-32-chara t least one alpha and r roups contain NOAMP ers. Level C groups cor replication over any WA nteger between 1 and i	Acter string. Valid nust not start and Query ntain MP N connection 3.]
13.	NOAMP Server A: The user should be presented with a banner information message stating "Data committed".	Main Menu: Info - Info Dat	Configuratio	on -> Serve	er Groups [ cription que identifier used 2-character string. tain at least one a	Insert] I to label a S Valid charac Ipha and mu	erver Group. ters are alpt st not start v
14.	NOAMP Server A: Select <u>Main Menu</u> → Configuration → Server Groups as shown on the right.	Connected using VII	P to pc9000724-no-a ( ion on Elements Filt roups NO_S	ACTIVE NETWORK	DAM&P) guration -> Set evel Parent NONE	Function	DS Connection Count

Step	Procedure				Result				
15.	NOAMP Server A: The Server Group entry added in Steps 6 - 13 should now appear on the "Server Groups" configuration screen as shown on the right.	Main Menu: Config         Filter         Server Group Name         Le         NO_SG	juratio	on -> Serv ent NE	Function	Connect Count 1	ion		
16.	NOAMP Server A: 1) Select the Server Group entry added in Steps 6 - 13. The line entry should now be highlighted in GREEN.	Main Menu: Con Filter Server Group Name	Aain Menu: Configuration -> Server Groups         Filter          Server Group Name       Level       Parent       Function       Connection Count       Se         NO_grp       A       NONE       UDR-NO       8       6						
	<ul> <li>2) Select the "Edit" dialogue button from the bottom left corner of the screen.</li> <li>NOTE: The user may need to use the vertical scroll-bar in order to make the "Edit" dialogue button visible.</li> </ul>	Insert Edit	De	lete R	eport	]	2		

Proce	dure 14: OAM Pairing	for the Primary NOAMP Servers

Step	Procedure					Result	
17.	NOAMP Server A: The user will be	Normal or Low Capacity Configuration:					
	presented with the	Info 👻				Fri Aug 08 15:45:10 2014	
	Server Groups	Field	Ma	luo		Department	
	shown on the right.	Server Group Name	S	1_NO_SG	•	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]	
		Level	A	A Contraction of the second se	*	Select one of the Levels supported by the system	
		Parent	N	IONE	*	Select an existing Server Group	
		Function	L	JDR-NO	*	Select one of the Functions supported by the system	
		WAN Replication Connection C	Count 5			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_UDR_Site1_VM					
		Server	SG	Inclusion		Preferred HA Role	
		BL908050101-no-1a		Include in SG	;	Preferred Spare	
		BL908050103-no-1b		Include in SG	;	Preferred Spare	
		VIP Assignment					
		VIP Address				Add	
		Single Server Config Main Menu: Configurati	guratio on -> S	DN: Server Gro	ups [Edit	t]	
		Field	Value		Descrip	ption	
		Server Group Name	NO_grp		* charact digit.]	e identitier used to label a server Group. [Default = n/a. Range = A 1-32-character string, valid iters are alphanumeric and underscore. Must contain at least one alpha and must not start with a	
		Level	A	*	Select	one of the Levels supported by the system	
		Parent	NONE	*	Select	an existing Server Group	
		Function	UDR-NO	) 🔻 *	Select	one of the Functions supported by the system	
		WAN Replication Connection Count	8	_	Specify associa	y the number of TCP connections that will be used by replication over any WAN connection ated with this Server Group. [Default = 1. Range = An integer between 1 and 8.]	
		NO_SUN_05	C Inchrol		Droferr	end U.A. Data	
		Server NO-A	Include	in SG	Preterr	ferred Share	
			moude				
		VIP Assignment					
		VIP Address			Add		
						Ok Apply Cancel	

Step	Procedure	Result							
18.	NOAMP Server A:	Normal or Low Capacity Configuration:							
	Check the boxes to include the " <b>A</b> " server and the " <b>B</b> " server into the NOAMP <b>Server</b> <b>Group</b> . Note: For Single Server Installation, only NO-A will be displayed; therefore only one box will be selected.	NO_UDR Server SG Inclusion Preferred HA Role NO-A SG Include in SG Preferred Spare NO-B Include in SG Preferred Spare VIP Assignment VIP Address Add Cancel Single Server Configuration: Server SG Inclusion Preferred HA Role NO-A Include in SG Preferred Spare VIP Assignment							
19.	<ul> <li>NOAMP Server A:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Select the "Apply" dialogue button.</li> </ul>	Main Menu: Configuration -> Server Groups [Edit]          Info       1         Info       Image: Configuration passed - Data NOT committed       1         Level       A       Select one of the Levels supporte         VIP Address       Add         Remove       Q							
20.	NOAMP Server A: The user should be presented with a banner information message stating "Data committed".	Main Menu: Configuration -> Server Groups [Edit]         Info          Info          Description          Unique identifier used to label a S characters are alphanumeric and digit.]         Level       A       *							

Procedure 14: OAM Pairing	for the Primary NOAMP Servers

Step	Procedure	Result								
21	NOAMP Server A:	Normal or Low Capacity Cor	nfiguration:							
	Click the " <b>Add"</b> dialogue button for the <b>VIP Address</b> .	NO_UDR Server NO-A NO-B	SG Inclusion ✓ Include in SG ✓ Include in SG	Preferred HA Role Preferred Spare Preferred Spare						
		VIP Assignment VIP Address	(	Add						
		Remove Ok Apply Cancel								
		Single Server Configuration (	SG Inclusion	ver):	Preferred HA Role					
		NO-A	🗹 Include in SG	i	Preferred Spare					
		VIP Assignment VIP Address		Add	ove Ok Apply Cancel					
<b>22.</b>	NOAMP Server A: Input the VIP Address	VIP Address		Add Remove Ok Apply	Cancel					
23.	<ul> <li>NOAMP Server A:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Select the "Apply" dialogue button.</li> </ul>	Main Menu: Config Info • Info • Pre-Validation VIP Address	passed - Data NOT com	ver Groups mitted us are ligit. Add Remove	[Edit] 1 ed to label a Server Group. alphanumeric and underso					

Procedure	14: OAM	Pairing for	the	Primary	NOAMP	Servers

Step	Procedure	Result
24.	NOAMP Server A: The user should be presented with a banner information message stating "Data committed".	Main Menu: Configuration -> Server Groups [Edit]
25.	NOAMP Server A: Click the "Logout" link on the OAM A server GUI.	Welcome guiadmin [Logout] Help Fri Nov 18 14:43:32 2011 UTC ge = A 1-32-character string. at least one alpha and must
<b>26.</b>	IMPORTANT: Wait at least 5 minutes before proceeding on to the next Step.	<ul> <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 Configuration will not need to establish the 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>
27.	NOAMP VIP: Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) assigned in STEP 22 to the OCUDR Server Group using "https://".	Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked         Image: Certificate Error: Navigation Elevel Erro

Procedure 14: OA	I Pairing for the second se	the Primary I	NOAMP Servers

Step	Procedure	Result
28.	NOAMP VIP: The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login       Thu Nov 17 16:03:36 2011 UTC         Log In       Image: Comparison of the temperature of temperatu
29.	NOAMP VIP: The user should be presented the Main Menu as shown on the right.	<b>Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&amp;P) Main Menu Main Menu</b> Administration Configuration Alarms & Events Security Log Status & Manage Measurements Communication Agent UDR Diameter <b>Help</b> Elogout
30.	NOAMP VIP: Restarting the NOAMP Server Application Select <u>Main Menu</u> → Status & Manage	Normal or Low Capacity Configuration:         Velcome guidemin (Log         Main Menu       Main Menu:       Status & Manage -> Server       Proc       Proc         Administration       Filter       Image: Security Log       Filter       Image: Security Log       Proc       Security Log         Security Log       Security Log       Security Log       Filter       Image: Security Log       Proc       Security Log         Security Log       Security Log       Security Log       Security Log       Proc       Security Log         Security Log       Security Log       Security Log       Proc       Security Log       Proc         Security Log       Security Log       Security Log       Proc       Security Log       Proc         Security Log       Security Log       Security Log       Proc       No_UDR       Proc       No_UDR         No_UDR       pc9000724-no-3       Disabled       Err       Norm       Man       Norm         Single Server Configuration:       Secure Configuration:       Secure Configuration:       Secure Configuration:       Secure Configuration       Secure Configuration
	→ server	Administration     Fiter      Fiter      Administration     Fiter      Fiter

Procedure 1	4: OAM	Pairing for	the Prima	ry NOAMP	Servers

Step	Procedure			Resu	lt				
31.	NOAMP VIP:	Normal or Low Ca	mal or Low Capacity Configuration:						
	1) The "A" and "B" servers should now	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	
	appear in the right panel. Note: For	NO_UDR	pc9000722-no-b	Disabled	Err	Norm	Norm	Man	
	single server, only the "A" server will appear.	NO_UDR	pc9000724-no-a	Disabled	Err	Norm	Norm	Man	
	2) Verify that the	Single Server Conf	iguration:						
"	"DB" status shows "Norm" and the "Proc" status shows	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc	
	"Man" for one/both	NO_UDR	pc9000722-no a	Disabled	Err	Norm	Norm	Man	
	servers before proceeding to the next Step.								

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Step	Procedure	Result			
32.	NOAMP VIP: 1) Using the mouse, select NOAMP Server A. The line entry should now be	Normal or Low Capacity Configuration:         Main Menu: Status & Manage -> Server         Filter •         Network Element       Server Hostname         Appl State       Alm       Repl       Coll       DB       HA       Proc			
	highlighted in GREEN. 2) Select the "Restart" dialogue	ET83_NO_NE     NO-A     Disabled     Err     Norm     Norm     Err     Man       ET83_NO_NE     NO-B     Disabled     Warn     Norm     Norm     Err     Man       Single Server Configuration:     Main Menu: Status & Manage -> Server     Image: Server Configuration in the s			
	button from the bottom left corner of the screen. 3) Click the " <b>OK</b> "	Filter       Tue Aug 21 09:05:37 2012 EDT         Filter       Network Element       Server Hostname       Appl State       Alm       Repl       Coll       DB       HA       Proc         ETS3_NO_NE       NO-A       Disabled       Err       Norm       Norm       Err       Man			
	button on the confirmation dialogue box. 4) The user should be presented with a confirmation	A Help Logout Stop Restart Reboot			
	message (in the banner area) for NOAMP Server A stating: "Successfully restarted application".	Are you sure you wish to restart application software on the following server(s)? NO-A 3 OK Cancel			
	<b>NOTE:</b> The user may need to use the vertical scroll-bar in order to make the " <b>Restart</b> " dialogue	Main Menu: Status & Manage -> Server [Restart]			
	button visible.	Status     Appl State     Alm     Repl <ul> <li>NO-A: Successfully restarted application.</li> <li>Disabled</li> <li>Disabled</li> <li>Warn</li> <li>Norm</li> </ul>			

Step	Procedure	Result							
33.	NOAMP VIP:	Normal or Low C	Capacity Configuration	on:					
	Verify that the <b>"Appl</b> State" now shows <b>"Enabled"</b> and that the <b>"Repl, Coll, DB,</b> HA & Proc" status	Network Element ETS3_NO_NE ETS3_NO_NE Single Server Cor	Server Hostname NO-A NO-B nfiguration:	Appl State Alm Enabled Err Disabled Warn	Repl Jorm Norm	Coll Norm Norm	DB Norm Norm	HA Norm Err	Norm Man
	HA & Proc" status columns all show "Norm" for NOAMP Server A before proceeding to the next Step. NOTE: If user chooses to refresh the Server status screen in advance of the default setting (15-30 sec.). This may be done by simply reselecting the "Status & Manage -> Server" option from the Main menu on the loft	Network Element ETS3_NO_NE	Server Hostname NO-A	App 364 Aim Enabled Err	Norm	Coll Norm	DB Norm	HA Norm	Proc
34.	NOAMP VIP: Restart NOAMP Server B.	Note: Don't perfo Repeat steps 32 a	orm this step for sing nd 33 above to resta	le server installation rt NOAMP Server	ons. B.				
35.	NOAMP VIP: Verifying the NOAMP Server Alarm status Select <u>Main Menu</u> → Alarms & Events → View Active as shown on the right.	Connected using Main Menu Administra Configura Alarms & I View H View H View T Security L Status & I	VIP to BL908050101-no- ation Main tion Filte Events ctive Seq # rap Log og Manage hents	1a (ACTIVE NETWORK Menu: Alarms a r ▼ Tasks ▼ Event ID Timest Alarm Text	OAM&P) & Event	s -> Vi	ew Act Severity Additional	Proc	

Procedure 14: OAM Pairing	for the Primary NOAMP Servers

Step	Procedure	Result								
36.	NOAMP VIP: Verify that the noted	102	19820 Communicatio	2014-0 on Agent	4-03 16:59:37.58 Routed Service	33 EDT Unavailable	MAJOR GN_INFO/WR	CAF N ^^ [43603:Co	udrbe mAgentStack.C	NO_UD 2792]
	only alarms present on the system at this time.	784	13027	2014-0	4-03 16:53:28.09	91 EDT	MAJOR	Provisioning	xsas	NO_UD
			No Remote X	SAS Clie	nt Connections		GN_INFO/WR More	N for informatio	in only [SoapLi	stener.C:
		777	19820	2014-04	4-03 16:53:23.84	41 EDT	MAJOR	CAF	udrbe	NO_UD
			Communicati	on Agent	Routed Service	Unavailable	GN_INFO/WR	N ^^ [48369:Co	mAgentStack.0	:2792]
		<ul> <li>- 13001 (No Remote RAS Client Connections)</li> <li>- 13027 ("No Remote XSAS Client Connections")</li> <li>- 19820 ("Communicaton Agent Routed Service Unavailable")</li> <li>Note: It may take a few minutes for residual process</li> </ul>						ess alarm.	s to clea	r.
37.		Connected u E 🚇 Main Me								
	Configuring SNMP for Traps from Individual	r Administration Mai				Main Menu: Administration -> SNMP				
	Servers	- 📑 S	essions		Variable	Value				
	Select	i i i i i i i i i i i i i i i i i i i	ingle Sign-On uthorized IPs ptions		Manager 1	10.250.54.1	2			
	Main Menu	📑 S			-					
	→ Administration									
	$\rightarrow$ SNMP Transing									
	as shown on the right.									

Procedure 14: OAM Pairing for the Primary NOAMP Servers

Step	Procedure	Result			
38.	NOAMP VIP: 1) Using the cursor, place a "check" in the check box for "Traps from Individual Servers".	Traps from       [Default: enabled.]         Traps from       Enable or disable SNMP traps from in         Individual       Image: Construction of the sector			
	<ul> <li>2) Click the "Apply" dialogue button located at the top right corner of the right panel.</li> <li>3) Verify that a banner message stating "Data committed" is received.</li> </ul>	SNMPv3 Privacy Type       AES       Privacy protocol (SNMPv3 only). 1) "AES": privacy. 2) "DES": Use Data Encryption St       2         SNMPv3 Password       Authentication password (SNMPv3 only). be specified. The length of the password The password accepts any characters. [1 must not be shown publicly here.]       2         Ok       Cancel         Main Menu: Administration -> SNMP Managers Info       Oscillation         Info       Oscillation         Info       Oscillation         Info       Amanager to receive IP address or a valid to of four 8-bit octets sep and last 3 octets mus case-insensitive, max			
39.	NOAMP VIP: Click the "Logout" link on the server GUI.	Welcome guiadmin [Logout]			
		THIS PROCEDURE HAS BEEN COMPLETED			

## 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 12: Create Configuration for Remaining Servers has been completed.
- Procedure 14: OAM Pairing for the Primary NOAMP Servers has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

Step	Procedure	Result
1.	Active NOAMP VIP: Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active NOAMP site using "https://"	Certificate Error: Navigation Blocked - Windows Internet Explorer   Control of the problem of the
2.	Active NOAMP VIP: The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login Thu Nov 17 16:03:36 2011 UTC
3.	Active NOAMP VIP: The user should be presented the Main Menu as shown on the right.	Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&P)   Main Menu   Main Menu   Administration   Configuration   Alarms & Events   Security Log   Status & Manage   Measurements   Communication Agent   UDR   Diameter   Help   Elogout

Step	Procedure	Result				
4	Active NOAMP VIP:	** Note: Don't perform t	his step for single server install	ations.		
	For <b>Primary NOAMP</b> Standby server only:	Main Menu: Status &	Manage -> HA [Edit]			
	Mark the server 'forced standby'	Info 👻				
	Main Manu	Hostname	Max Allowed HA Role	Description		
	$\rightarrow$ Status & Manage	pc9000724-no-a	Active	The maximum desired HA Role for pc9000724-nd		
	$\rightarrow$ HA	рс9000722-по-р	Standby •	The maximum desired HA Role for pc9000722-nd		
		pc9000720-so-a	Activo	The maximum desired HA Role for pc9000720-sd		
	Find the row for the	pc9000718-so-b	Active •	The maximum desired HA Role for pc9000/18-so		
	Standby server and	pc9000720-mp1	Active •	The maximum desired HA Role for pc9000720-m		
	change "Max	pc9000720-mp2	Active •	The maximum desired HA Role for pc9000720-m		
	"Standby".	pc9000718-mp4	Active •	The maximum desired HA Role for pc9000719 m		
	-	pc3000710-mp4	Active			
5	Active NOAMP VIP:	Connected using VIP to pc9000724-no-a (ACTI	VE NETWORK OAM&P)	Welcome		
э.	Select	Administration	enu: Configuration -> Server Groups	Thu Oct 16 16:2		
		Comparadori     Filter     Network Elements     Network	Darant Function Connection	Sanuare		
	<u>Main Menu</u>	Services	Level Lover Lubbin Count	NE Server HA Role Pref VIPs		
	→ Configuration	Server Groups	A NONE ODR-NO I	NO_UDR pc9000722-no-a 10.240.37.130 NO_UDR pc9000724-no-a 10.240.37.130		
	→ Server Groups					
	as shown on the right.					
	Active NOAMP VIP:					
6.		Server Group Name Leve	el Parent 🔺 Function	Connection Count		
	presented with the			4		
	"Server Groups"	NO_SG A	NONE UDR-NO	1		
	configuration screen as shown on the					
	right.					
		- elp	Insert	Edit Delete Report 2		
	<ol> <li>Select the "Insert" dialogue button from</li> </ol>	🏧 🔁 Logout				
	the bottom left corner					
	of the screen.					
	<b>NOTE:</b> The user may need to use the					
	order to make the					
	" <b>Insert</b> " dialogue button visible.					

Step	Procedure	Result			
7.	Active NOAMP VIP: Configuring the SOAM or DR NOAMP Server Group The user will be presented with the "Server Groups [Insert]" screen as shown on the right.	Field     Value       Server Group Name     *       Level     - Select Level - •       Parent     - Select Parent - •       Function     - Select Function - •       WAN Replication Connection Count     Ok	Description         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.]         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.]         Select an existing Server Group or NONE         *       Select one of the Functions supported by the system         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.]         Cancel		
8.	Active NOAMP VIP: Input the Server Group Name.	Field     Value       Server Group     SO_grp *	Description Unique identifier used to label a Server Group. 1-32-character string. Valid characters are alph contain at least one alpha and must not start w		
9.	Active NOAMP VIP: Assign the correct group Level.	Level       - Select Level - *         Parent       - Select Level -         B       - *         C       *         Note: Use these setting for group level:         • For DR NOAMP server group: select "A" or         • For SOAM server group: select "B" on the "	Select one of the Levels supported by the servers. Level B groups are optional and servers.] Select an existing Server Group or NONE n the "Level" pull-down menu 'Level" pull-down menu		
10.	Active NOAMP VIP: Assign the correct Parent.	Parent       NO_grp         Note:       Use these setting for parent:         •       For DR NOAMP server group: select "NON         •       For SOAM server group: select the 1 <sup>st</sup> NOAN         •       For SOAM server group: select the 1 <sup>st</sup> NOAN         •       For SOAM server group: select the 1 <sup>st</sup> NOAN         •       For SOAM server group: select the 1 <sup>st</sup> NOAN         •       For SOAM server group: select the 1 <sup>st</sup> NOAN	Select an existing Server Group or NONE NE" on the "Parent" pull-down menu. MP Site's server group, as entered in Procedure		

Step	Procedure	Result
11.	Active NOAMP VIP: Assign the correct Function.	Function       NONE         Note: Use these setting for function:         • For DR NOAMP server group: select "UDR-NO" on the "Function" pull-down menu.         • For SOAM server group: select "NONE" on the "Function" pull-down menu.
12.	Active NOAMP VIP: <u>For DR NOAMP only:</u> Input value "8" into "WAN Replication Connection Count".	WAN Replication Connection Count 8 Specify the massociated v
13.	<ul> <li>Active NOAMP VIP:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Select the "Apply" dialogue button.</li> </ul>	Main Menu: Configuration -> Server Groups [Insert]
14.	Active NOAMP VIP: The user should be presented with a banner information message stating "Data committed".	Main Menu: Configuration -> Server Groups [Insert]

Step	Procedure				Result			
15.	Active NOAMP VIP:	Main Menu: Con	figur	ation -> Ser	ver Grou	)5		
	Seleci	Filter -						
	<u>Main Menu</u> → Configuration	Server Group Name	Level	Parent	Function	Connection Count	Servers	
	→ Server Groups	NO_grp	A	NONE	UDR-NO	8	NO_SUN_0	Serve
	as shown on the right.	SO_grp	В	NO_grp	NONE	1	NE	Serve
16.	Active NOAMP VIP: The Server Group	Main Menu: Con	figur	ation -> Ser	ver Grou	)S		
	entry should be shown on the	Filter -						
	"Server Groups" configuration screen as shown on the	Server Group Name	Level	Parent	Function	Connection Count	Servers	
	right.	NO_grp	A	NONE	UDR-NO	8	NO_SUN_0	Serve
		SO_grp	В	NO_grp	NONE	1	NE	Serve
17.	NOAMP Server A: 1) Select the Server Group entry applied in Step 7. The line	Main Menu: Cont	figura	ation -> Serv	er Groups			
	entry should now be	Server Group Name	Level	Parent	Function	Connection Count	Servers	
	GREEN.	NO_grp	A	NONE	UDR-NO	8	NE NO_SUN_05	Server NO-A
	2) Select the "Edit"	SO_grp	В	NO_grp	NONE	1	NE	Servei
	the bottom left corner of the screen.	Insert Edit	Del	ete Report	<u>ີ</u> ງ	000		
	<b>NOTE:</b> The user may need to use the vertical scroll-bar in order to make the " <b>Edit</b> " dialogue button visible.				- Z			

Procedure 15:	Pairing the OAM Servers for SOAM or DR NOAMP sites
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Procedure				Resul	t
Active NOAMP VIP:	Normal or Low Capa	city Con	figuration	:	
	Field		Value		Description
Adding a Server to the OAM Server Group (SOAM or DR NOAMP)	Server Group Name		SO_SG	*	Unique identifier used to label a Server Group. [Default = n/a. Range = A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit.]
	Level		В	*	Select one of the Levels supported by the system
The second second lines	Parent		NO_SG	*	Select an existing Server Group or NONE
presented with the	Function		NONE	*	Select one of the Functions supported by the system
"Server Groups [Edit]" screen as shown on the right.	WAN Replication Connect	tion 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				
	Server		SG Inclusion	1	Preferred HA Role
	SO-A		🗆 Include i	n SG	Preferred Spare
	SO-B		Include in	n SG	Preferred Spare
	VIP Assignment VIP Addre		C	k Apply C	Add
	Single Server Config	uration: on -> Ser	ver Groups	[Edit]	
	Field	Value		Description	
	Server Group Name	SO_grp	*	characters are alphar digit.]	d to label a Server Group. [Default = n/a. Kange = A 1-32-character string. Valid numeric and underscore. Must contain at least one alpha and must not start with a
	Level	В	*	Select one of the Lev	els supported by the system
	Parent	NO_grp	*	Select an existing Se	rver Group
	Function	NONE	▼ *	Select one of the Fun	ctions supported by the system
	WAN Replication Connection Count	1		Specify the number o associated with this S	f TCP connections that will be used by replication over any WAN connection server Group. [Default = 1. Range = An integer between 1 and 8.]
	SO_SUN_05 Server	SG Inclusion		Preferred HA Role	
	SO-A	🗆 Include in S	G	Preferred Spare	
	VIP Assignment				
	VIP Address		Ad	1	
			Au	Ok Apply Ca	ancel
	ProcedureActive NOAMP VIP:Adding a Server to the OAM Server Group (SOAM or DR NOAMP)The user will be presented with the "Server Groups [Edit]" screen as shown on the right.	Procedure	Procedure       Normal or Low Capacity Control         Adding a Server to the OAM Server Group (SOAM or DR NOAMP)       Server Group Name         The user will be presented with the "Server Groups" [Edit]" screen as shown on the right.       Level         Parent       Function         So-A       SO-A         SO-B       VIP Assignment         VIP Assignment       No Ame         Server Group Name       So-group         So-A       SO-B         VIP Assignment       VIP Address         Field       Name         Sorver Group Name       So-group         VIP Assignment       NO group         Field       No group         VIP Assignment       NO group         Field       No group	Procedure       Normal or Low Capacity Configuration         Adding a Server to the OAM Server Group (SOAM or DR NOAMP)       Server Group Name       S0_S0_S0_S0_S0_S0_S0_S0_S0_S0_S0_S0_S0_S	Procedure       Result         Active NOAMP VIP:       Normal or Low Capacity Configuration:         Adding a Server to the OAM Server Group (SOAM or DR NOAMP)       Server Group Name       SO_SG         The user will be presented with the ""Server Groups IEdit]" screen as shown on the right.       So_UDR       So_UDR         So_UDR       So_A       Include in SG       So_SA         So_UDR       So_A       Include in SG       So_A         So_UDR       So_SOA       Include in SG       So_A         So_UDR       Single Server Configuration:       Main Menu: Configuration -> Server Groups [Edit]       Single Server Configuration -> Server Groups [Edit]         Field       ViP Address       Single Server Configuration -> Server Groups [Edit]       Server Group Name       So_ypp       Server Group Server Group Section of the law         ViP Address       So_A       Include in SG       So_A       Include in SG       So_A       So_So_A       So_So_A

## Procedure 15: Pairing the OAM Servers for SOAM or DR NOAMP sites

Step	Procedure	Result
19.	Active NOAMP VIP: Select the "A" server and the "B" server from the list of "Servers" by clicking the check box next to their names. Note: For Single Server Installation, only SO-A will be displayed; therefore only one box will be selected.	Normal or Low Capacity Configuration:         SO_UDR         Server       SG Inclusion       Preferred HA Role         SO-A       Include in SG       Preferred Spare         SO-B       Include in SG       Preferred Spare         VIP Assignment       SG Inclusion       Preferred HA Role         So-A       SG Inclusion       Preferred HA Role         VIP Assignment       Include in SG       Preferred HA Role         So-A       Include in SG       Preferred Spare         VIP Assignment       Include in SG       Preferred HA Role
20.	Active NOAMP VIP: For DR NOAMP servers only: Check the Preferred Spare boxes next to their names	SG Inclusion       Preferred HA Role         Include in SG       Preferred Spare         Include in SG       Preferred Spare         Include in SG       Preferred Spare         NOTE:       DR NOAMP will not be accessible via their VIP unless they become the Active         NOAMP.       Individual servers in the DR NOAMP server group are always accessible by their XMI addresses.
21.	<ul> <li>Active NOAMP VIP:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Select the "Apply" dialogue button.</li> </ul>	Main Menu: Configuration -> Server Groups [Edit]         Info       1         Info       Image: Configuration passed - Data NOT committed         Info       Image: Configuration passed - Data NOT committed         Level       A         VIP Address       Add         Remove       Qt         Ote Apply cancel       2

1

Step	Procedure	Result
22.	Active NOAMP VIP: The user should be presented with a banner information message stating "Data committed".	Info       Description         Info       Output         <
23.	Active NOAMP VIP: Click the "Add" dialogue button for the VIP Address. Note: Optional for Single server Installation	VIP Assignment VIP Address
24.	Active NOAMP VIP: Input the VIP Address	VIP Address Add 10.250.55.125 Remove
25.	<ul> <li>Active NOAMP VIP:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Select the "Apply" dialogue button.</li> </ul>	Main Menu: Configuration -> Server Groups [Edit]
		VIP Address Add 10.250.55.125 Remove O(Apply) Cancel 2

Step	Procedure					Result					
26.	Active NOAMP VIP: The user should be presented with a banner information message stating "Data committed".	Main Menu Info	i: Coi	nfigura mitted!	ation	Des Val val not	cription ique identifier id characters a start with a di	DS [H used t are alp git.]	E <b>dit]</b> o label a hanume	Server ric and	Group. unders
27.	IMPORTANT: Wait at least 5 minutes before proceeding on to the next Step.	<ul> <li>Now that the master/slave process to be</li> <li>Note: Single Availability (F</li> <li>Allow a minir</li> </ul>	server( relatior compl Server HA). mum of	s) have b hship for F eted. Configura 5 minute	een pai High Ava ations do <b>s</b> before	red within a S ailability (HA) o not establis e continuing t	Server Group t . It may take h master/slave o the next Ste	hey m severa e relati p.	ust estal Il minute	blish a s for thi or High	S
28.	Active NOAMP VIP: Select	Connected using X Connected using X Main Menu Configurat Configurat Alarms & E	KMI to po ation tion Events	:9000716-1 N	no-a (AC Main M Filter	TIVE NETWORK enu: Statu	(OAM&P) s & Manage	e -> I	łA		
	<u>Main Menu</u> → Status & Manage → HA	🗼 🧰 Security Lo 🖻 숙 Status & M 🌉 Networ	og 1anage 'k Elemer	nts	Hostname	6-00-2	OAM Max HA Role	Appli Max Role	ication Ma HA Al Ro	ax llowed HA ole	
	as shown on the right.	💽 Server 💽 🌆 💓 Databa	se		pc900071: pc900071:	2-so-a 2-mp1	Active	OOS Active	Ac a Ac	ctive ctive	
29.	Active NOAMP VIP:	Normal or Low C	Capacity	Configu	ration:						
	Note:	Hostname	OAM Max HA Role	Application Max HA Role	Max Allowed HA Role	Mate Hostname	List Network El	ement	Server F	Role 👻	Active VIPs
	DRNO servers will	BL119122305-SO-1A BL119122306-SO-1B	Active Standby	00S 00S	Active Active	BL119122306-S BL119122305-S	0-1B SO_UDR_S	Site1_VM Site1_VM	System (	oam oam	10.240.168.
	have OAM MAX HA	BL119121305-SO-2A	Active	005	Active	BL119121306-S	0-2B SO_UDR_S	Site2_VM	System (	OAM	10.240.168.
	Active VIPs (shown	BL119121306-SO-2B	Standby	008	Active	BL119121305-S	0-2A SO_UDR_S	Site2_VM	System	OAM	
	in red).	BL119122301-NO-1A	Standby	005	Active	BL119122303-N	IO-1B NO_UDR_	Site1_VN	Network	OAM&P	
		BL110122303 NO 1B	Active Spore	000	Activo	DL110122301 N	0.28 NO UDR (	Site 2 VM	Network	OAMER	10.240.100
	SOAM server(s) will	BL119121303-NO-28	Spare	005	Active	BL119121303-N	10-28 NO_00R_0	Site2_VN	Network	OAM&P	
	Role of Active or Standby and an Active VIP.	Single Server Co	nfigurat	ion:	•			_			
		Hostname	OAM HA Role	Application HA Role	Max Allowed HA Role	Mate Hostname List	Network Element		Server Role	Activ	ve VIPs
		NO-A	Active	OOS	Active		NO_SUN_05		Network OAM8	&P 10.24	40.15.40
		SO-A	Active	00\$	Active		SO_SUN_05		System OAM	10.24	40.15.4 <b>1</b>

Step	Procedure			R	esult					
		Connected using XMI to NO-A (AC	TIVE NETWORK OAM&P				Welco	ome guiadr	nin (Logout)	
30.	ACTIVE NOAME VIE.	🛛 🖳 Main Menu 💼 🧰 Administration	Main Menu: Statu	s & Manage -> Se	rver				ile Help	
		Configuration	Filter -				Fri No	v 01 16:44:0	05 2013 EDT	
	Restarting the OAM	Security Log	Network Element	Server Hostname	Appl State	Alm	DB	Reporting	Proc	
	Server Application	Status & Manage	NO_UDR	NO-A	Enabled	Err	Norm	Norm	Norm	
		- C Server	NO_UDR	NO-B	Enabled	Err	Norm	Norm	Norm	
	Select	– 📑 HA – 🃑 Database	SO_UDR SO_UDR	SO-A SO-B	Enabled	Warn Warn	Norm Norm	Norm	Norm	
		— MPIs — Processes								
	Main Menu	Tasks								
	→ Status & Manage	- racs	I							
	→ Server									
	as shown on the									
	right									
	light.									
31.	Active NOAMP VIP:	Normal or Low Ca	pacity Configu	ration:						
	1) The "A" and "B" servers should now	Network Element	Server Hostn	ame Appl State	Alm	n	DB		Reporting	Proc
	appear in the right	-	-	otate	_				otatao	$\frown$
	panel. (Only "A" for	SO_UDR	pc9000722-s	0-b Disat	led	Err	Nor	m	Norm	Man
	single server installs)	SO_UDR	pc9000720-s	o-a Disat	led	Err	Nor	m /	Norm	Man
	2) Verify that the		The second s						A REAL PROPERTY.	
	"DB" status shows		~ .							
	"Norm" and the	Single Server Cont	figuration:							
	"Man" for both	Network Element	Server Hostn	ame Appl	ΔIn	,	DB		Reporting	Proc
	servers before	Hetwork Element	June	State	0.00		00		Status	1100
	proceeding to the	NO_UDR	pc9000724-n	o-a Enabl	ed 📕	Err	Nor	m	Norm	Norm
	next Step. (Only "A"	SO LIDR	nc9000720-e	0-3 Disch	No.	m	Non	m	Norm	
	server for single	00_001	p00000120-00	Disab			HUI			
	server configuration)						-			

Step	Procedure			Re	sult					
32.	Active NOAMP VIP: 1) Using the mouse,	Normal or Low Ca Main Menu: Statu	apacity Configuration	n: r <b>er</b>						🔗 Help
	select <b>Server A</b> . The line entry should now	Filter -						Tue	Aug 21 10:20	0:10 2012 EDT
	be highlighted in	Network Element	Server Hostname	Appl State	Alm	Repl	Coll	DB	HA	Proc
	GREEN.	ETS3_NO_NE	NO-A	Enabled	Err	Norm	Norm	Norm	Norm	Norm
	2) Select the	ETS3_SO_NE	SO-A	Disabled	Warn	Norm	Norm	Norm	Err	Man
	"Restart" dialogue button from the bottom left corner of the screen.	ETS3_SO_NE Single Server Con	so-в figuration:	Disabled	Warn	Norm	Norm	Norm	Err	Man
	3) Click the "OK"	Main Menu: Status	s & Manage -> Serve	er				Tue A	lug 21 10:20	Help 10 2012 EDT
	button on the	Filter •								-
	confirmation dialogue	Network Element ETS3 NO NE	Server Hostname	Appl State Enabled	Alm	Repl	Coll	DB	HA	Proc
	507.	ETS3_SO_NE	SO-A	Disabled	Warn	Norm	Norm	Norm	Err	Man
	4) The user should be presented with a confirmation message (in the banner area) for Server A stating: "Successfully restarted application". NOTE: The user may need to use the	Are you sure you on the following SO-A	u wish to restart applica server(s)?	Stop Re ation softw 3	start )	Reboot	2			
	vertical scroll-bar in order to make the " <b>Restart"</b> dialogue button visible.		ОК	Cancel						
		Main Menu: Filter 🔻 Sta	Status & Mana tus 🗸	ige -> ∶	Serve	r [Re	estart	]	4	
		Status Status SO-	A: Successfully restarte	d applicatio	⊗ n.	Appl Enal Enal	State A bled A	l <b>m</b> Err Iorm	Repl Norm Norm	

Step	Procedure				Res	ult					
33	Active NOAMP VIP:	Normal or Low C	Capacity Configu	ration:							
<b>.</b>	Select… <u>Main Menu</u> ➔ Status & Manage	Connected using Main Menu Administr Configura	VIP to NO-A (AC ation ation	Main Filter	Menu	am&P) : Stati	us & M	Manag	e -> S	erver	
	→ Server	Security I	Log	Netwo	rk Elemen	t	Se	rver Hostr	name		Appl State
	as shown on the right.	Status & Status &Status & Status &Status &	Manage ork Elements ation 	ETS3_ ETS3_ ETS3_ ETS3_	NO_NE NO_NE SO_NE SO_NE		NC NC SO SO	)-A )-B  -A			Enabled Enabled Enabled Disabled
		Single Server Co	nfiguration:								
		Connected using Main Menu Administra	VIP to NO-A (ACT ation tion	Main Filter	WORK OA Menu:	M&P) Statu	IS & M	lanage	e -> Se	erver	
		🖬 🛅 Alarms & I	events og	Networ	k Element		Ser	ver Hostn	ame	ļ	Appl State
		Status & M — Metwork — Status	lanage rk Elements	ETS3_N ETS3_S	NO_NE		NO- SO-	A A		E	Enabled Enabled
34.	Active NOAMP VIP: Verify that the "Appl State" now shows "Enabled" and that the "Alm, Repl, Coll, DB, HA & Proc" status columns all show "Norm" for OAM Server A before proceeding to the next Step.	Normal or Low C Main Menu: Stat Filter  Network Element ETS3_NO_NE ETS3_NO_NE ETS3_SO_NE ETS3_SO_NE ETS3_SO_NE	Capacity Configu <b>Server Hostname</b> NO-A NO-B SO-A SO-B	iration: • Server	Appl State Enabled Enabled Enabled Disabled	Alm Err Norm Warn	Repl Norm Hom Norm	Coll Norm Horm Norm	Tue DB Norm Norm Norm Norm	Aug 21 10:: HA Norm Norm Norm Err	Help 25:40 2012 EDT  Proc Norm Norm Norm Man
	<b>NOTE:</b> <i>If user chooses to refresh</i>	Main Menu: Stat	us & Manage ->	Server					Tue	Aug 21 10:2	Help 5:40 2012 EDT
	the Server status screen in advance of the default setting (15-30 sec.). This may be done by	Network Element ETS3_NO_NE ETS3_SO_NE	Server Hostname NO-A SO-A	<	Appl State Enabled Enabled	Alm Err Norm	Repl Norm Norm	Coll Norm Norm	DB Norm Norm	HA Norm Norm	Proc Norm Norm
	simply reselecting the <b>"Status &amp; Manage</b> → Server" option from the Main menu on the left. Perform steps 36 – 40 f	or Normal or Low	Canacity Confid	nuration	sonly						
35.	1 chorn steps 50 – 40 l	or normal of LOW	Capacity Colling	surations	somy.						

Step	Procedure			Re	sult					
36.	Active NOAMP VIP:	Main Menu: Status	s & Manage -> Serv	er				—— Tue A	ug 21 10:2	Hel 3:40 2012 ED
	1) Using the mouse,	Filter -								
	line entry should now	Network Element	Server Hostname	Appl State	Alm	Repl	Coll	DB	HA	Proc
	be highlighted in	ETS3_NO_NE	NO-A	Enabled	Err	Norm	Norm	Norm	Norm	Norm
	GREEN.	ETS3_NO_NE	NO-B	Enabled	Norm	Norm	Norm	Norm	Norm	Norm
		ETS3_SO_NE	SO-A	Enabled	Norm	Norm	Norm	Norm	Norm	Norm
	<ul> <li>2) Select the "Restart" dialogue button from the bottom left corner of the screen.</li> <li>2) Click the "OK"</li> </ul>	🔷 Help 🛛 🔁 Logout		Stop Re	start	2 Reboot				
	<ul> <li>3) Click the "OK" button on the confirmation dialogue box.</li> <li>4) The user should be</li> </ul>	Are you sure you on the following so SO-B	wish to restart applica erver(s)?	ation softw	are					
	presented with a									
	confirmation message (in the banner area) for Server B stating: "Successfully restarted application"	Main Menu: Status	OK 5 & Manage -> Serve	Cancel er [Restar	t]		4	——— Tue At	ug 21 10:30	Hel 31 2012 ED
	confirmation message (in the banner area) for Server B stating: "Successfully restarted application".	Main Menu: Status Filter V Status V	OK 5 & Manage -> Serve	Cancel er [Restar Appl State	t]	Repl	Coll	Tue Au	ug 21 10:30	Hell 31 2012 ED Proc
	confirmation message (in the banner area) for Server B stating: "Successfully restarted application".	Main Menu: Status Filter  Status Status Status Status Status Status	OK 5 & Manage -> Serve	Cancel er [Restar Appl State Enabled	-t] Alm	Repl Norm	Coll Norm	DB Norm	ug 21 10:30 HA Norm	<ul> <li>Hel</li> <li>31 2012 ED</li> <li>Proc</li> <li>Norm</li> <li></li> </ul>
	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may	Main Menu: Status Filter  Status Status Status Status Status Status	OK 5 & Manage -> Serve stully restarted application.	Cancel er [Restar Appl State Enabled Enabled	t] Alm Err Norm	Repl Norm Norm	Coll Norm Norm	DB Norm Norm	HA Norm Norm	Hel 31 2012 ED Proc Norm Norm
	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in	Main Menu: Status Filter  Status Status Status Status ETS3_S0_NE ETS3_S0_NE	OK 5 & Manage -> Serve stully restarted application.	Cancel er [Restar Appl State Enabled Enabled Enabled	Alm Err Norm Norm	Repl Norm Norm Norm	Coll Norm Norm Norm	Tue Au DB Norm Norm Norm	HA Norm Norm Norm	Hell 31 2012 ED Proc Norm Norm Norm
	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible.	Main Menu: Status Filter V Status V Status Status Status ETS3_S0_NE ETS3_S0_NE	OK 5 & Manage -> Serve Stully restarted application.	Cancel er [Restar Appl State Enabled Enabled Enabled Enabled	Alm Alm Norm Norm Norm	Repl Norm Norm Norm Norm	Coll Norm Norm Norm	Tue Au DB Norm Norm Norm Norm	HA Norm Norm Norm Norm	<ul> <li>Hell</li> <li>31 2012 ED</li> <li>Proc</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> </ul>
07	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible.	Main Menu: Status Filter Vistatus Status Status Status ETS3_S0_NE ETS3_S0_NE Connected using VIP to	OK 5 & Manage -> Server 5 & Manage -> Server 5 & So-A 5 & So-A 5 & So-A 5 & So-B	Cancel Ca	Alm Err Norm Norm Norm	Repl Norm Norm Norm	Coll Norm Norm Norm	Tue Au DB Norm Norm Norm	HA Norm Norm Norm Norm	Hell :31 2012 ED Proc Norm Norm Norm Norm
37.	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible. Active NOAMP VIP: Select	Main Menu: Status Filter Status Status Status So-B: Success ETS3_SO_NE ETS3_SO_NE ETS3_SO_NE Connected using VIP to Main Menu Configuration Configuration Configuration Configuration	OK 5 & Manage -> Server 5 & Manage -> Server 5 & So-A 5 O-A 5 O-A	Cancel er [Restar Appl State Enabled Enabled Enabled COAM&P) nu: Status	Alm Err Norm Norm Norm	Repl Norm Norm Norm	Coll Norm Norm Norm	Tue Au DB Norm Norm Norm	HA Norm Norm Norm Norm	<ul> <li>Hell</li> <li>Proc</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> </ul>
37.	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible. Active NOAMP VIP: Select	Main Menu: Status          Filter       Status         Status       SO-B: Success         ETS3_SO_NE       ETS3_SO_NE         ETS3_SO_NE       Main Menu         Main Menu       Administration         Main Menu       Configuration         Administration       Alarms & Events	OK 5 & Manage -> Server 5 & Manage -> Server 5 & So-A SO-A SO-A SO-A SO-B SO-A SO-B SO-A SO-B	Cancel er [Restan Appl State Enabled Enabled Enabled	t] Alm Err Norm Norm Norm	Repl Norm Norm Norm	Coll Norm Norm Norm	Tue Au DB Norm Norm Norm	HA Norm Norm Norm Norm	Hell :31 2012 ED  Proc Norm Norm Norm Norm
37.	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible. Active NOAMP VIP: Select <u>Main Menu</u> → Status & Manage	Main Menu: Status Filter  Status Status ETS3_SO_NE ETS3_SO_NE ETS3_SO_NE Connected using VIP to Administration Administration Alarms & Events Security Log	OK       5 & Manage -> Serve       5 & Manage -> Serve       Stully restarted application.       SO-A       SO-A       SO-B	Cancel Ca	t] Alm Err Norm Norm Norm	Repl Norm Norm Norm	Coli Norm Norm Norm	DB Norm Norm Norm	HA Norm Norm Norm Norm	Hel :31 2012 ED  Proc Norm Norm Norm Repl
37.	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible. Active NOAMP VIP: Select <u>Main Menu</u> → Status & Manage	Main Menu: Status	OK       5 & Manage -> Serve       5 & Manage -> Serve       Stully restarted application.       SO-A       SO-A       SO-B         NO-A (ACTIVE NETWORK         Main Mer         Filter •         Network Elem       ETS3_NO_NE	Cancel er [Restar Appl State Enabled Enabled Enabled COAM&P) COAM&P	t] Alm Err Norm Norm Norm S & Mar	Repl Norm Norm Norm Norm	Coll Norm Norm Norm Norm	Tue Ad DB Norm Norm Norm Norm	HA Norm Norm Norm Norm	Hel 31 2012 ED  Proc Norm Norm Norm Norm Norm Norm Norm Norm
37.	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible. Active NOAMP VIP: Select <u>Main Menu</u> → Status & Manage → Server	Main Menu: Status	OK       5 & Manage -> Serve       5 & Main Mer       5 & NO-A (ACTIVE NETWORK       8 & Main Mer       Filter •       Network Elements	Cancel er [Restar and the state and the state behaviored and the state and the state behaviored	Alm Err Norm Norm Norm Norm Se & Mar Server 1 NO-A NO-B	Repl Norm Norm Norm Norm	Coll Norm Norm Norm Serve	Tue Au DB Norm Norm Norm Norm	HA Norm Norm Norm Norm	<ul> <li>Hell</li> <li>2012 ED</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> </ul>
37.	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible. Active NOAMP VIP: Select <u>Main Menu</u> → Status & Manage → Server	Main Menu: Status Filter Status Status Status So-B: Success ETS3_SO_NE ETS3_SO_NE ETS3_SO_NE Connected using VIP to Administration Administration Administration Alarms & Events Alarms & Events Security Log Status & Manage Network Eler Scarter Sca	OK         5 & Manage -> Serve         5 & Manage -> Serve         5 & Manage -> Serve         Stully restarted application.         SO-A         SO-A         SO-B         Main Mer         Filter -         Network Elements         ETS3_NO_NE         ETS3_SO_NE	Cancel er [Restan er [Restan enabled e	t] Alm Err Norm Norm Norm Norm Sorw Server NO-A NO-A NO-B SO-A	Repl Norm Norm Norm	Coll Norm Norm Norm Serve	Tue Au DB Norm Norm Norm Norm Tue Au Particular Norm	HA Norm Norm Norm Norm Norm Norm Norm Norm	<ul> <li>Hell</li> <li>S1 2012 ED</li> <li>Proc</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> <li>Norm</li> </ul>
37.	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible. Active NOAMP VIP: Select <u>Main Menu</u> → Status & Manage → Server as shown on the	Main Menu: Status Filter Status Status Status So-B: Success ETS3_SO_NE ETS3_SO_NE ETS3_SO_NE Configuration Administration Administration Alarms & Events Security Log Status & Manage Status &	OK 5 & Manage -> Server 5 & Manage -> Server 5 So-A 5 O-A 5	Cancel  c Cancel	AIM ET Norm Nor	Repl Norm Norm Norm	Coll Norm Norm Norm Serve	Tue Ac DB Norm Norm Norm Norm S Norm Norm Norm Norm S Norm Norm Norm Norm Norm Norm Norm Norm	HA Norm Norm Norm Norm Norm Norm Norm Norm	<ul> <li>Hell</li> <li>S1 2012 ED</li> <li>Proc</li> <li>Norm</li> </ul>
37.	confirmation message (in the banner area) for Server B stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible. Active NOAMP VIP: Select <u>Main Menu</u> → Status & Manage → Server as shown on the right.	Main Menu: Status Filter Status Status Status ETS3_SO_NE ETS3_SO_NE ETS3_SO_NE Connected using VIP to Administration Administr	OK S & Manage -> Server S & Manage -> Server S & Manage -> Server S & Main Mer Filter • Network Elements Filter • Network Elements Filter • Network Elements Filter • Network Elements ETS3_NO_NE ETS3_NO_NE ETS3_SO_NE ETS3_SO_NE	Cancel  Cancel	L	Repl Norm Norm Norm	Coll Norm Norm Norm	Tue Au Tue Au Tue Au Tue Au Au Tue Au	Alm Norm Norm Norm Norm Norm Norm Norm Nor	Hell:31 2012 ED Proc Norm Unk Norm Unk Unk
## Procedure 15: Pairing the OAM Servers for SOAM or DR NOAMP sites

Step	Procedure	Result								
38.	Active NOAMP VIP:	Main Menu: Status & Manage -> Server								
	Verify that the "Appl State" now shows	Filter -						Tue	Aug 21 10:3	1:29 2012 ED1
	"Enabled" and that	Network Element	Server Hostname	Appl State	Alm	Repl	Coll	DB	HA	Proc
	the "Alm, Repl, Coll,	ETS3_NO_NE	NO-A	Enabled	Err	Norm	Norm	Norm	Norm	Norm
	DB, HA & Proc"	ETS3_NO_NE	NO-B	Enabled	Norm	Norm	Norm	Norm	Norm	Norm
	status columns all	ETS3_SO_NE	SO-A	Enabled	Norm	Norm	Nom	Norm	Norm	Norm
	show "Norm" for	ETS3_SO_NE	SO-B	Enabled	Norm	Norm	Norm	Norm	Norm	Norm
	OAM Server B									
	before proceeding to the next Step.									
	NOTE: If user									
	chooses to refresh									
	screen in advance of									
	the default setting									
	(15-30 sec.). This									
	may be done by									
	simply reselecting the									
	Status & Manage									
	from the Main menu									
	on the left.									
39.	Repeat the steps above	e for each <b>DR NOAN</b>	IP and SOAM site b	eing instal	led.					
40	Active NOAMP VIP:			ut fe l'	. 1					
	For <b>Primary</b>	Main Menu: Sta	atus & manage ->	• HA [Edi	IJ					
	NOAMP Standby server only:									
	Move the server back									
	to 'Active'	Hostname	Max Allowed HA	Role		Descript	ion			
		pc9000724-no-a	Active •			The max	imum desir	ed HA Role	e for pc9000	1724-no-a
	<u>Main Menu</u> → Status & Manage	pc9000722-no-b	Active			The max	timum desir	ed HA Role	e for pc9000	1722-no-b
	$\rightarrow$ HA[Edit]	pc9000720-so-a	Active •			The may	imum desir	ed HA Role	e for pc9000	720-so-a
		pc9000718-so-b	Active •			The max	timum desir	ed HA Role	e for pc9000	718-so-b
	Find the row for the	pc9000720-mp1	Active •			The max	imum desir	ed HA Role	e for pc9000	720-mp1
	Standby server and	pc9000720-mp2	Active •			The may	timum desir	ed HA Role	e for pc9000	720-mp2
	change "Max	pc9000718-mp3	Active •			The max	timum desir	ed HA Role	e for pc9000	718-mp3
	back to "Active".									

## **Procedure 15:** Pairing the OAM Servers for SOAM or DR NOAMP sites

Step	Procedure	Result			
41.	Active NOAMP VIP: Click the "Logout" link on the server GUI.	Welcome guia min [Logout] Help Fri Nov 18 14:43:32 2011 UTC ge = A 1-32-character string. at least one alpha and must			
42.	TVOE Servers: Add DRNO-A and DRNO-B servers as additional NTP servers for all TVOE hosts.	** For configurations with DR sites only: ** Don't execute for RMS servers Follow Appendix 0: Configure Additional NTP Server to add two NTP Servers (DRNO-A and DRNO-B) to each TVOE host server as additional NTP Servers. Note: If DRNO-A and DRNO-B are running on virtual machines, use the management IP of their TVOE host instead for NTP servers. I TVOE Host (SOAM-A, MP-1, MP-2) I TVOE Host (SOAM-B, MP-3, MP-4)			
		THIS PROCEDURE HAS BEEN COMPLETED			

August 2015

# 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 12: Create Configuration for Remaining Servers has been completed.
- Procedure 14: OAM Pairing for the Primary NOAMP Servers has been completed.
- Procedure 15: OAM Pairing for SOAM and DR sites (All SOAM and DR sites) has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

### Procedure 16: Configuring MP Server Groups

Step	Procedure	Result				
1.	Active NOAMP VIP: Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active NOAMP site using "https://"	Certificate Error: Navigation Blocked - Windows Internet Explorer   Corrificate Error: Navigation Blocked - Windows Internet Explorer   E Edit Yew Favores Tools Help   Share Browser WebEx +     There is a problem with this website's security certificate. The security certificate presented by this website was not issued by a trusted certificate authority. The security certificate presented by this website was issued for a different website's address. Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server. We recommend that you close this webpage and do not continue to this website. Cick here to dose this webpage. Continue to this website (not recommended). More information				
2.	Active NOAMP VIP: The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login Thu Nov 17 16:03:36 2011 UTC  Log In Enter your username and password to log in Username: guiadmin Password: Change password Log In Welcome to the Tekelec System Login. Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0 or 8.0 wth support for JavaScript and cookies.				

Procedure 16:	Configuring M	P Server Groups
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Step	Procedure	Result					
3.	Active NOAMP VIP: The user should be presented the Main Menu as shown on the right.	Connected using XMI to pc900 Main Menu Administration Admin	AGLE 0.0.0-10 00724-n M -	XG User Data Rep .0.0_10.1.0 o-a (ACTIVE NETWORK ( lain Menu: [Main]	Dam&p)		
4.	Active NOAMP VIP: Select <u>Main Menu</u> → Configuration → Server Groups as shown on the right.	Main Menu: Conf Filter  Server Group Name NO_grp SO_grp	Level A B	Parent NONE NO_grp	er Groups Function UDR-NO NONE	Connection Count 8	Servers NE NO_SUN_05 NE SO_SUN_05
5.	<ul> <li>Active NOAMP VIP:</li> <li>1) The user will be presented with the "Server Groups" configuration screen as shown on the right.</li> <li>2) Select the "Insert" dialogue button from the bottom left corner of the screen.</li> <li>NOTE: The user may need to use the vertical scroll-bar in order to make the "Insert" dialogue button visible.</li> </ul>	Main Menu: Conf Filter  Server Group Name NO_grp SO_grp SO_grp	Level A B	Parent NONE NO_grp	er Groups Function UDR-NO NONE	Connection Count 8 1 1 ete Report	1 Servers NO_SUN_05 NE SO_SUN_05

Procedure 16:	<b>Configuring MP</b>	Server Groups
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Step	Procedure	Result				
6.	Active NOAMP VIP: The user will be presented with the "Server Groups [Insert]" screen as shown on the right	Field     Value     Description       Server Group Name     *     Hange = A 1-3 aphanumeric and must not       Level     • Select Level - ▼ *     Select one of contain NOAM and contain S       Parent     • Select Parent - ▼ *     Select an exis       Function     • Select Function - ▼ *     Select one of Specify the nu replication over Group. [Defau       WAN Replication Connection Count     Ok     Apply	er used to label a Server Group. [Default = n/a. 2-character string. Valid characters are and underscore. Must contain at least one alpha tart with a digit.] te Levels supported by the system. [Level A groups P and Query servers. Level B groups are optional XAM servers. Level C groups contain MP servers.] ing Server Group or NONE the Functions supported by the system mber of TCP connections that will be used by r any WAN connection associated with this Server t = 1. Range = An integer between 1 and 8.]			
7.	Active NOAMP VIP: Input the Server Group Name.	Field     Value     Description       Server Group     MP1_grp     Unique id       Name     MP1_grp     *	n entifier used to label a Server Group. acter string. Valid characters are alph ain at least one alpha and must not s			
8.	Active NOAMP VIP: Select "C" on the "Level" pull-down menu	Level C 💌 * Select one of the Levels su NOAMP and Query servers servers. Level C groups co	oported by the system. [Level A groups contain Level B groups are optional and contain SOAM ntain MP servers.]			
9.	Active NOAMP VIP: Select the desired SOAM server group on the "Parent" pull- down menu.	Parent SO_grp 💌 * Select	an existing Server Group or NONE			
10.	Active NOAMP VIP: Select " UDR-MP (multi- active cluster)" on the "Function" pull- down menu.	Function UDR-MP (multi-active	cluster) ▼ *			
11.	<ul> <li>Active NOAMP VIP:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Select the "Apply" dialogue button.</li> </ul>	Main Menu: Configuration -> Server Groups [Insert]				



Step	Procedure	Result					
12. A	Active NOAMP VIP: The user should be presented with a panner information nessage stating Data committed".	Main Menu:	ta com	nfiguratio	n -> S€ - *	Description Unique ider 1-32-charac Must contain	oups [Insert] ntifier used to label a Server Group. ter string. Valid characters are alph n at least one alpha and must not s
13. 1) See Gi wi in: 2) di th of	Active NOAMP VIP: ) Using the mouse, select the MP Server Group associated with the MP being installed. 2) Select the "Edit" lialogue button from he bottom left corner of the screen.	Main Menu: Configuration -> Set         Filter         Server Group Name       Level       Parent         MP1_grp       C       SO_grp         NO_grp       A       NONE         SO_grp       B       NO_grp		Parent SO_grp NONE NO_grp	Function UDR-MP (multi-active cluster) UDR-NO NONE	Servers       NE     Server     HA Role F       NE     Server     HA Role F       NO_SUN_05     NO-A     HA Role F       NE     Server     HA Role F       SO_SUN_05     SO-A     HA Role F	

Procedure 16:	Configuring MP Server Group	ps
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Step	Procedure	Result							
44	Active NOAMP VIP:	Normal Canacity Confi	guratio	n:					
	The user will be presented with the <b>"Configuration →</b>	Server Group Name		MP_SG *			A 1-32-character string. Valid characters are alphanumeric and underscore. Must contain at least one alpha and must not start with a digit 1		
	Server Groups	Level	С	*	Sel	lect o	ne of the Levels supported by em		
	shown on the right	Parent	S	0_SG •	Sel	lect a	n existing Server Group or		
	Ŭ	Function		DR-MP (multi-active	cluster) - * Sel	lect o	ne of the Functions		
		WAN Replication Connection (	Count 1	_	Sp cor rep as: [De	ecify f nnecti plicati socia efault tweer	the number of TCP ions that will be used by on over any WAN connection ted with this Server Group. = 1. Range = An integer 1 1 and 8.]		
		SO_UDR	50	Inclusion	Dee				
		MP-1		Inclusion		Prefe	rred Spare		
		MP-2		Include in SG		Prefe	rred Spare		
		MP-3		Include in SG		Prefe	rred Spare		
		MP-4		Include in SG		Prefe	rred Spare		
		VIP Assignment							
		VIP Address			Add				
		Low Capacity Configur	Low Capacity Configuration: Main Menu: Configuration -> Server Groups [Edit]						
		Info 🔻							
		Field		Value			Description		
		Server Group Name		MP_GRP			Unique identifier used to labe characters are alphanumeric a digit.]	l a Server and under	
		Level		C	*		Select one of the Levels supported by the		
		Parent		SO_GRP •			Select an existing Server Grou	up	
		Function		UDR-MP (multi-a	active cluster) 🔻		Select one of the Functions su	pported b	
		WAN Replication Connection	on Count	8			Specify the number of TCP co associated with this Server Gr	nnections oup. [Defa	
		SO_UDR_VM		CO la chucica			Des forme d LLA Dista		
		UDRPV01-MP-1		SG Inclusion			Preferred HA Role		
		UDRPV01-MP-2		Include in SG			Preferred Spare		
		VIP Assignment					•		
		Field	/alue		Description				
		Server Group Name	MP1_grp	*	Unique identifier use characters are alpha with a digit.]	ed to la anume	abel a Server Group. [Default = n/a. Ran ric and underscore. Must contain at leas	ge = A 1-32-cha st one alpha and	
		Level	С	*	Select one of the Le	vels su	upported by the system		
		Parent	SO arp	*	Select an existing Select an exi	erver (	Group		
		Function	UDR-MP (	(multi-active cluster) 🔻	Select one of the Fu	Inction	s supported by the system		
		WAN Replication Connection Count	1		Specify the number	ofTCF	connections that will be used by replica	ation over any V	
					associated with this	Serve	r Group. [Default = 1. Range = An intege	r between 1 an	
		Server S	G Inclusion	1	Preferred HA Role				
		MP1	🗆 Include in	n SG	Preferred Spare				
		/IP Assignment							
		VIP Address		Add					
1				Auu					

Procedure 16:	Configuring MP	Server Groups
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Step	Procedure	Result					
15	Active NOAMP VIP:	Normal Capacity Configuration:					
15.	Dut a shash made in	SO LIDR					
	Put a check mark in	Server	SG Inclusion	Preferred HA Role			
	"Include in SG" for	MP-1	Include in SG	Preferred Spare			
	each MP to be	MP-2	Include in SG	Preferred Spare			
	Server Group.	MP-3	🗹 Include in SG	Preferred Spare			
		MP-4	Include in SG	Preferred Spare			
	Note: Low Capacity Configurations have 2 MPs and Single Server Configurations	Low Capacity Configuration	n:				
	have 1 MP.	Server	SG Inclusion	Preferred HA Role			
		MP-1	Include in SG	Preferred Spare			
		MP-2	Include in SG	Preferred Spare			
		Single Server Configuration SO_UDR Server MP-1	SG Inclusion	Preferred HA Role			
16.	<ul> <li>Active NOAMP VIP:</li> <li>1) The user should be presented with a banner information message stating "Pre-Validation passed".</li> <li>2) Select the "Apply" dialogue button.</li> </ul>	Main Menu: Config	passed - Data NOT committee	Groups [Edit]			
17.	Active NOAMP VIP: The user should be presented with a banner information message stating "Data committed".	Main Menu: Confi	tted!	er Groups [Edit] cription que identifier used to label a Server Group. d characters are alphanumeric and unders start with a digit.]			
18.	IMPORTANT: Wait at least 5 minutes before proceeding on to the next Step.	<ul> <li>Now that the Message each must establish DE several minutes for this</li> <li>UDR processs alarms r SOAM Sites) is completed</li> <li>Allow a minimum of 5 n</li> </ul>	Processor(s) have been place replication with the Active S process to be completed. nay be present until Section sted. <b>hinutes</b> before continuing to	ced within their respective Server Groups, SOAM server at the NE. It may take 8.8 Configure SPR Application on MP <b>(All</b> the next Step.			

Step	Procedure			Resu	lt						
10	Active NOAMP VIP:	Normal Capacity Configuration:									
13.	Coloct	Connected using XMI to NO-A (ACTIVE NETWORK OAM&P) Welcome guiadmin [Logout]									
	Select	Main Menu Main Menu: Status & Manage -> Server							🏈 Help		
	<u>Main Menu</u>	Configuration	Filter 🔻					Fri N	Fri Nov 01 16:44:05 2013 EDT		
	→ Status & Manage	Gecurity Log	Network Element	Server Host	name	Appl State	Alm	DB	Reporting	Proc	
	→ Server	Status & Manage Network Elements		NO-A		Enabled	Err	Norm	Norm	Norm	
		Server	NO_UDR	NO-B		Enabled	Err	Norm	Norm	Norm	
	as shown on the	HA	SO UDR	SO-A		Enabled	Warn	Norm	Norm	Norm	
	right	💽 Database	SO_UDR	SO-B		Enabled	Warn	Norm	Norm	Norm	
	ngnt.	💓 KPIs	SO_UDR	MP-1		Disabled	Warn	Norm	Norm	Man	
			SO_UDR	MP-2		Disabled	Warn	Norm	Norm	Man	
		Tasks	SO_UDR	MP-3		Disabled	Warn	Norm	Norm	Man	
		in Plies	SO UDR	MP-4		Disabled	Warn	Norm	Norm	Man	
		Configuration Configuration Alarms & Events Control Los	Filter 👻			10		PO N	OA 01 1914410	9 4013 EDT	
		<ul> <li>Status &amp; Manage</li> </ul>	letwork Element	Server Hostr	same	Appl State	Alm	08	Status	Proc	
		- Network Elements	NO_UDR	NO-A		Enabled	Err	Norm	Norm	Norm	
		Server	NO_UDR	NO-B		Enabled	Err	Norm	Norm	Norm	
		- A HA	SO_UDR	SO-A		Enabled	Warn	Norm	Norm	Norm	
		- Database	SO_UDR	SO-8		Enabled	Warn	Norm	Norm	Norm	
		Processes	SO_UDR	MP-1		Disabled	Warn	Norm	Norm	Man	
		Tarke	IO_UDR	MP-2		Disabled	Warn	Norm	Norm	- Man	
		Single Server Configurati	on:								
		Main Menu: Status & Manage	-> Server							🤣 H	
		Filter •									
		Network Element	Server Hostname		Appl State	Alm	DB	Rej Sta	porting Pr tus Pr	roc	
		SO_SUN_05	MP1		Disabled	Err	Norm	Nor	m 📒	Man	
		NO_SUN_05	NO-A		Enabled	Err	Norm	Nor	m	Err	
		SO_SUN_05	SO-A		Enabled	Norm	Norm	Nor	m N	orm	

Procedure 16:	Configuring MP Server Groups
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Step	Procedure		Result						
20.	Active NOAMP VIP:	Normal Capacity	Configuration:						
	Verify that the "DB &	SO_UDR	MP-1	Disabled V	Varn Norm	Norm	Man		
	status columns show	SO_UDR	MP-2	Disabled	larr Norm	Norm	Man		
	"Norm" for the MPs	SO_UDR	MP-3	Disabled	Varn Norm	Norm	Man		
	at this point. The	SO UDR	MP-4	Disabled	arn Norm	Norm	Mar		
	"Proc" column should show "Man".	Low Capacity C	onfiguration :						
		SO_UDR	MP-1	Disabled	larn Norm	Norm	Man		
		SO_UDR	MP-2	Disabled	/arn Norm	Norm	Man		
		Single Server Co	onfiguration :						
		SO_UDR	MP-1	Disabled	/arn Norm	Norm	Man		

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Procedure 16: Configuring MP Serve
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Step	Procedure			Result				
21.	Active NOAMP VIP: 1) Select each "MP"	Normal Capacity Configuration: Main Menu: Status & Manage -> Server Fri Nov 01 17:05:48 2013 EDT Filter •						
	with " <b>Man</b> " status using the mouse and holding the <b>Ctrl</b> key. The line entries should be highlighted							
		Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc
	should be highlighted in <b>GREEN</b> .	NO_UDR	NO-A	Enabled	Err	Norm	Norm	Norm
	2) Select the	NO_UDR	NO-B	Enabled	Err	Norm	Norm	Norm
	"Restart" dialogue	SO_UDR	SO-A	Enabled	Norm	Norm	Norm	Norm
	button from the	SO_UDR	SO-B	Enabled	Norm	Norm	Norm	Norm
	bottom left corner of	SO_UDR	MP-1	Disabled	Err	Norm	Norm	Man
	the screen.	SO_UDR	MP-2	Disabled	Err	Norm	Norm	Man
		SO_UDR	MP-3	Disabled	Err	Norm	Norm	Man
	3) Click the "OK"	SO_UDR	MP-4	Disabled	Err	Norm	Norm	Man
	confirmation dialogue box.	Low Capacity	Configuration:					
		SO_UDR	MP-1	Disabled	Err	Norm	Norm	Man
	4) The user should be	SO_UDR	MP-2	Disabled	Err	Norm	Norm	Man
	confirmation message (in the banner area) stating: "Successfully restarted application". NOTE: The user may need to use the vertical scroll-bar in order to make the "Restart" dialogue button visible.	SO_UDR Help Logou Are you sur on the follor MP-1,MP-2 Main Me Filter - Status	MP-1	Disabled ) Restart software 3 ancel age -> S	Err Reboot	Norm	start] 4	Man
			MP-1: Successfully restarte	d application	. E	nabled nabled	Err Norm	

Procedure 16:	<b>Configuring MP</b>	<b>Server Groups</b>
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Step	Procedure	Result							
22.	Active NOAMP VIP:	Connected using XMI to NO-A (AC	CTIVE NETWORK OAM&P				٧		
	Select	Main Menu	Main Menu: Sta	tus & Manage -> Se	erver		F		
	Main Menu	<ul> <li>Alarms &amp; Events</li> </ul>	Filter -						
	→ Status & Manage	💼 🧰 Security Log	Network Element	Server Hostname	Appl State	Alm	DB		
	→ Server	Network Elements	NO_UDR	NO-A	Enabled	Err	Norm		
		- Server	NO_UDR	NO-B	Enabled	Err	Norm		
	as shown on the	💽 HA	SO_UDR	SO-A	Enabled	Norm	Norm		
	right.	- 💽 Database	SO_UDR	SO-B	Enabled	Norm	Norm		
			SO_UDR	MP-1	Enabled	Err	Norm		
	Note: Low Capacity	Processes	SO_UDR	MP-2	Enabled	Err	Norm		
	Configuration has 2	🛨 🔤 Tasks		MD 2	Enabled	Fre	Norm		
	MP servers and								
	Single Server								
	configuration has 1								
	MP server.								

Procedure 16:	Configuring MP S	Server Groups
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Step	Procedure			Result						
23.	Active NOAMP VIP: Verify that the "Appl	Normal Capacity Co Main Menu: Sta	erver				🔗 Help			
	"Enabled" and that	Fri Nov 01 17:02:40 2013 EDT								
	the "DB & Reporting Status" status columns all show "Norm" for the MPs.	Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Proc		
		NO_UDR	NO-A	Enabled	Err	Norm	Norm	Norm		
	The "Alm & Proc"	NO_UDR	NO-B	Enabled	Err	Norm	Norm	Norm		
	columns may show	SO_UDR	SO-A	Enabled	Norm	Norm	Norm	Norm		
	"Err" at this point.	SO_UDR	SO-B	Enabled	Norm	Norm	Norm	Norm		
		SO_UDR	MP-1	Enabled	Err	Norm	Norm	Err		
		SO_UDR	MP-2	Enabled	Err	Norm	Norm	Err		
		SO_UDR	MP-3	Enabled	Err	Norm	Norm	Err		
		SO_UDR	MP-4	Enabled	Err	Norm	Norm	Err		
		Main Menu: Sta	tus & Manage -> Se	rver		Fri N	ov 01 17:02:4	Help 0 2013 EDT		
		Main Menu: Sta	tus & Manage -> Se		Alm	Pri N	ov 01 17:02:4 Reporting	Help 0 2013 EDT		
		Filter  Network Element	Server Hostname	Appl State	Alm	DB	Reporting Status	Help 0 2013 EDT Proc		
		Network Element	Server Hostname	Appl State Enabled	Alm Err	Fri Norm	ev 01 17:02:4 Reporting Status Norm	Help 0 2013 EDT Proc Norm		
		No_UDR	Server Hostname NO-A NO-B	Appl State Enabled Enabled	Alm Err Err	DB Norm Norm	ov 01 17:02:4 Reporting Status Norm Norm Norm	Help     2013 EDT     Proc     Norm     Norm     Norm		
		No_UDR So_UDR	Server Hostname NO-A NO-B SO-A SO-B	Proversion of the second secon	Alm Err Err Norm Norm	Fri Norm Norm Norm Norm	ov 01 17:02:4 Reporting Status Norm Norm Norm Norm	Help     2013 EDT      Proc      Norm      Norm      Norm      Norm		
		Network Element No_UDR So_UDR	Server Hostname NO-A NO-B SO-A SO-B MP-1	Appl State Enabled Enabled Enabled Enabled	Alm Err Err Norm Norm Err	Fri Norm Norm Norm Norm Norm	ov 01 17:02:4 Reporting Status Norm Norm Norm Norm Norm Norm	Help     2013 EDT      Proc      Norm      Norm      Norm      Err		
		Network Element No_UDR So_UDR	Server Hostname NO-A NO-B SO-A SO-B MP-1	Appl State Enabled Enabled Enabled Enabled	Alm Err Err Norm Norm	Fri Norm Norm Norm Norm Norm	ov 01 17:02:4 Reporting Status Norm Norm Norm Norm Norm	Proc Norm Norm Norm Norm		
		Low Capacity Conf         Main Menu: Sta         Filter         Network Element         NO_UDR         SO_UDR         Single Server Confi         Main Menu: State	Server Hostname NO-A NO-B SO-A SO-B MP-1 MP-2 guration: tus & Manage -> Se	RIVER Appl State Enabled Enabled Enabled Enabled Enabled	Alm Err Norm Norm Err Err	Fri Norm Norm Norm Norm Norm Norm Norm	ov 01 17:02:4 Reporting Status Norm Norm Norm Norm Norm Norm	Help 2013 EDT  Proc Norm Norm Norm Err Err Help Help		
		Low Capacity Conf         Main Menu: Sta         Filter         Network Element         NO_UDR         SO_UDR         SO_UDR         SO_UDR         SO_UDR         SO_UDR         So_UDR         So_UDR         Single Server Confi         Main Menu: Stat         Filter	server Hostname NO-A NO-B SO-A SO-B MP-1 MP-2 guration: tus & Manage -> Se	Appl State Enabled Enabled Enabled Enabled Enabled	Alm Err Norm Norm Err Err	Fri Norm Norm Norm Norm Fri Norm Fri Norm	ov 01 17:02:4 Reporting Status Norm Norm Norm Norm Norm Norm ov 01 17:02:40	Help 2013 EDT Proc Norm Norm Norm Err Err Pro Proc Proc Proc Norm Norm Norm Norm Norm Norm Norm Norm		
		Low Capacity Conf Main Menu: Sta Filter • Network Element NO_UDR NO_UDR SO_UDR	tus & Manage -> Se Server Hostname NO-A NO-B SO-A SO-B MP-1 MP-2 guration: tus & Manage -> Se Server Hostname	RIVEI Appl State Enabled Enabled Enabled Enabled Enabled	Alm Err Norm Err Err	Fri Norm Norm Norm Norm Fri Norm DB	ov 01 17:02:4 Reporting Status Norm Norm Norm Norm Norm ov 01 17:02:40 Reporting Status	Help 2013 EDT Proc Norm Norm Norm Err Err Proc Proc Proc		
		Low Capacity Conf Main Menu: Sta Filter • Network Element NO_UDR SO_UDR	tus & Manage -> Se Server Hostname NO-A NO-B SO-A SO-B MP-1 MP-2 guration: tus & Manage -> Se Server Hostname NO-A	RIVEI Appl State Enabled Enabled Enabled Enabled Enabled Enabled Enabled Enabled Enabled	Alm Err Norm Err Err Alm	Fri Norm DB Norm Norm Norm Norm Fri Norm DB DB Norm	ov 01 17:02:4 Reporting Status Norm N	Help 0 2013 EDT Proc Norm Norm Norm Err Err Proc 2013 EDT Proc Norm		
		Low Capacity Conf Main Menu: Sta Filter • Network Element NO_UDR SO_UDR	tus & Manage -> Se Server Hostname NO-A NO-B SO-A SO-B MP-1 MP-2 guration: tus & Manage -> Se Server Hostname NO-A SO-A SO-A	RIVEI Appl State Enabled Enabled Enabled Enabled Enabled Enabled Appl State RIVEI RIVEI Enabled Enabled Enabled	Alm Err Norm Err Err Alm	Fri Norm Norm Norm Norm Norm Norm Norm Norm	ov 01 17:02:4  Reporting Status Norm Norm Norm Norm Norm Norm Norm Norm	Help 2013 EDT  Proc Norm Norm Norm Err Err Proc Proc Norm Norm Norm Norm Norm Norm Norm Norm		

# 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 16: Configuring MP Server Groups has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

**Procedure 17: Configure MP Signaling Interfaces** 

Step	Procedure	Result
1.	Active NOAMP VIP Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active NOAMP site using "https://"	Certificate Error: Navigation Blocked - Windows Internet Explorer
2.	Active NOAMP VIP The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login       Thu Nov 17 16:03:36 2011 UTC         Log In       Enter your username and password to log in         Username:       guiadmin         Password:       Change password         Change password       Change password         Welcome to the Tekelec System Login.       Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0 or 8.0 with support for JavaScript and cookies.



Step	Procedure	Result	
3.	Active NOAMP VIP The user should be presented the Main Menu as shown on the right.	Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&P)          Main Menu         Main Menu         Administration         Administration         Alarms & Events         Security Log         Status & Manage         Measurements         Communication Agent         UDR         Diameter         Help         Logout	
Note:	Repeat the steps be	ow ( <b>Steps</b> 4 - 8) for each MP.	
4.	Active NOAMP VIP	Connected using VIP to pc9040833-no-a (ACTIVE NETWORK OAM&P)         ■ Administration       Main Menu: Configuration -> Network -> Devices         ■ Configuration       Transport	_
		Image: Services         Image: Ser	р
	<u>Main Menu</u>	Servers     Device Name     Device Type     Device Options     IP Interface (Network)	
	→ Configuration	Image: Second system         xmi         ETHERNET         monitorType = none         10.250.39.99 (XMI) fe80::5054:ff:fe7:dca7 (/64,	Ð
	→ Network	Imi         ETHERNET         monitorType = none         169.254.2.2 (IMI) fe80::5054:ff:fe78:81a3 (/64	4)
	→ Devices	Image: Security Log     control     Ethernet     onboot = yes     192.168.1.43 (/24)       Image: Status & Manage     control     Ethernet     bootProto = dhcp monitorType = none     fe80::5054:fffebe:5dc6 (/64)	4)
	as shown on the right.	• "Check off" the associated Check Box as addition is completed for each Server.	
		MP-1 (XSI-1) MP-2 (XSI-1) MP-3(XSI-1) MP-4 (XSI-	-1)
		MP-1 (XSI-2) MP-2 (XSI-2) MP-3(XSI-2) MP-4 (XSI-	-2)

Procedure 17:	Configure MP	Signaling	Interfaces
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Step	Procedure		F	Result	
5.	Active NOAMP VIP Select the xsi device for the	Click on the desired MP tab. Select the xsi1 device. Output similar to that shown below may be observed. Main Menu: Configuration -> Network -> Devices			
		Device Name     Device Type       xmi     ETHERNET       imi     ETHERNET	pc9040831-so-a pc9040830-so-b pc9040 Device Options monitorType = none monitorType = none ophoot = ves	pc9040828-mp-2         pc9040           IP Interface (Network)         10.250.39.105 (XMI)           169.254.2.6 (IMI)         169.254.2.6 (IMI)           169.254.5.6 (IMI)         169.254.6 (IAI)	733-no-a pc9040732-no-b r ⊙ ⊙ Configuration Status Discovered Discovered
		control Ethernet xsi1 Ethernet	bootProto = dhcp monitorType = none onboot = yes bootProto = none monitorType = none	192,108.1.47 (224) fe80::5054:fffe20:32e1 (/64) 10.250.39.82 (XSI11) fe80::5054:fffeaf.7285 (/64)	Discovered Configured
		• "Check off"     MP-1 (xs	the associated <b>Check Box</b>	10.250.39.90 (XSI12) fe80::5054:fffeat:1937 (/64) as addition is completed MP-3(XSI-1)	for each <b>Server</b> .
		<b>MP-1</b> (xs	GI-2) MP-2 (XSI-2)	) MP-3(xsi-2)	MP-4 (XSI-2)
6.	Active NOAMP VIP Edit the xsi device for the desired MP	2 Insert Edit	Delete Report Re	port All Take Ownersh	<b>◇</b> nip
		<ol> <li>Click on the 2. Re-select</li> <li>Click on the 3. Click on the select of the selec</li></ol>	the Take Ownership button. the xsi1 device. The Edit button. the associated Check Box	x as addition is completed	l for each <b>Server</b> .
		MP-1 (xs	SI-1) MP-2 (XSI-1) SI-2) MP-2 (XSI-2)	) MP-3(XSI-1) ) MP-3(XSI-2)	MP-4 (XSI-1) MP-4 (XSI-2)

Step	Procedure	Result		
7.	Active NOAMP VIP Enable "Start On Boot"	Click on the General Options tab. Check the Start on Boot check box (to make it enabled). Output similar to that shown below may be observed. Main Menu: Configuration -> Network -> Devices [Edit]		
		Edit Ethernet device xsi1 on pc9040829-mp-1 General Options MII Monitoring Options ARP Monitoring Options IP Interfaces		
		Field         Value         Description           Device Type         ©Ethernet @Bonding @Vlan @Alias         Select the device type. It cannot be changed after device is created. [Default = N/A. Range = Bonding, Vlan, Alias.]		
		Device Monitoring       Monitoring Type       Choose a monitoring style to use with a bonded device. Disabled for non-bonded devices. [Default = MII. Options = MII, ARP]         Start On Boot       Monitoring       Start the device, and also start on boot. [Default = enabled]         Boot Protocol       None       Select the boot protocol. [Default = None, Range = [None, DHCP]		
		Base Device(s)		
		Ok Apply Cancel		
		• "Check off" the associated Check Box as addition is completed for each Server.		
		MP-1 (XSI-1) MP-2 (XSI-1) MP-3(XSI-1) MP-4 (XSI-1)		

**Procedure 17: Configure MP Signaling Interfaces** 

Step	Procedure	Result
8.	Active NOAMP VIP Add an xsi IP Address.	Click on the IP Interfaces tab. Click the Add Row button. Output similar to that shown below may be observed. Main Menu: Configuration -> Network -> Devices [Edit]
		Edit Ethernet device xsi1 on pc9040829-mp-1          General Options       MII Monitoring Options       ARP Monitoring Options       IP Interfaces         IP Address List:       Add Row         10.250.39.82       XSI11       Remove
		Set the Network Name to xsi1.         Enter the xsi1 IP Address.         Click on the Ok button.         • "Check off" the associated Check Box as addition is completed for each Server.         MP-1 (XSI-1)       MP-2 (XSI-1)       MP-3(XSI-1)       MP-4 (XSI-1)         MP-1 (XSI-2)       MP-2 (XSI-2)       MP-4 (XSI-2)
9.	Repeat <b>Steps</b> 4 - 8	for each MP and its Signaling network(s).
10.	Active NOAMP VIP Select Main Menu → Configuration → Network → Routes as shown on the	Main Menu Administration Configuration Network Elements Network Network Devices Routes BL908070109-NO-A BL908070110-NO-B BL908070111-SO-A BL908070110-NO-B

Procedure 17: Configure MP Signaling Interfaces

Procedure 17:	Configure	MP Signaling	Interfaces
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Step	Procedure	Result
11.	Active NOAMP VIP Insert a new route for the MP.	Click on the desired Server Group tab on the top line. Then click on the Entire Server Group tab on the line below Server Group line. Output similar to that shown below may be observed. Main Menu: Configuration -> Network -> Routes
		Entire Network     MP_S1_SG     MP_S2_SG     NO_S1_SG     NO_S2_SG     SO_S1_SG       Entire Server Group     UDR-S2-MP1     UDR-S2-MP2     UDR-S2-MP3     UDR-S2-MP4       Route Type     Destination     Netmask     Gateway
		Click on the Insert button Insert  Click off" the associated Check Box as addition is completed for each Network.  XSI-1 XSI-2

Procedure 17:	Configure MP	Signaling	Interfaces
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Step	Procedure		Result		
12	Active NOAMP	Output similar to that shown be	Output similar to that shown below may be observed.		
	VIP	Main Menu: Configuration -> Network -> Routes [Insert]			
	Add xsi signaling route to MP				
		Insert Route on MP_S2_S	Insert Route on MP_S2_SG		
		Field Value	Description		
		Route Type Obfault OHost *	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.]		
		Device xsi1 •	Select the network device name through which traffic is being routed. The selction of AUTO will result in the device being selected automatically, if possible. [Default = N/A. Range = Provisioned devices on the selected server.		
		Destination 10.240.37.224	The destination network address. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.]		
		Netmask 255.255.255.240	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 10.240.162.161	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.]		
			Ok Apply Cancel		
		Set <b>Route Type</b> to desired value Set <b>Device</b> to <b>xsi1</b> Enter <b>Destination:</b> This is the the signaling network. Enter <b>Netmask</b> for the Diamete Enter <b>Gateway IP</b> : This is the Click <b>Apply</b> button	ue address of the Diameter Sh clients that will connect to OCUDR on er Sh client network. gateway for OCUDR signaling network		
		• "Check off" the associa	ted Check Box as addition is completed for each Network.		
		🗌 XSI-1	] XSI-2		
13.	Repeat Step 11-12	2 for each Network.			
14.	Repeat <b>Step 11-12</b> if MP $\Leftrightarrow$ ComAgent communication is intended to be configured on XSI1 as described in 8.11: Configure ComAgent Service on Signaling Network				
	Note: Destination v Note: Netmask wor Note: Gateway IP v	would be DR Site XSI1 Addres uld be DR Site XSI1 Address would be Primary Site XSI1 G	ss if configuring Primary Site and vice-versa. if configuring Primary Site and vice-versa. ateway if configuring Primary Site and vice-versa.		

**Procedure 17: Configure MP Signaling Interfaces** 

Step	Procedure	Result	
15.	Active NOAMP VIP: Click the "Logout" link on the server GUI.	Welcome guiadmin [Logout] Pri Nov 18 14:43:32 2011 UTC ge = A 1-32-character string. at least one alpha and must	
	THIS PROCEDURE HAS BEEN COMPLETED		

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

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

### Procedure 18: Configure SPR Application on MP

Step	Procedure	Result
1.	Active SOAM VIP Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active SOAM site using "https://"	Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Certificate Error: Navigation Blocked         Image: Certificate Error: Navigation Blocked
		More information

Procedure 18:	Configure	SPR Applic	ation on MP

Step	Procedure	Result
2.	Active SOAM VIP The user should be presented the login screen shown on the right.	Tekelec System Login Thu Nov 17 16:03:36 2011 UTC
	Login to the GUI using the default user and password.	Log In         Enter your username and password to log in         Username:       guiadmin         Password:       •••••••         Change password         Log In         Welcome to the Tekelec System Login.         Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0 or 8.0 with support for JavaScript and cookles.
3.	Active SOAM VIP The user should be presented the Main Menu as shown on the right.	Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&P)     Main Menu   Administration   Configuration   Alarms & Events   Security Log   Alarms & Events   Status & Manage   Measurements   Communication Agent   UDR   Diameter   Help   Logout

Step	Procedure		F	lesult			
4.	Active SOAM VIP	Normal Capacity Configur	ration:				
	Select	a 🚊 Main Menu a 💼 Administration a 💼 Configuration	Main Menu: Dian	neter Common	-> MPs ->	Profile Assi	gnments
	Main Menu → Diamter Common → MPs → Profile Assignments Select profile as UDRVM:Database and click on Assign	ain Menu Diamter Common → MPs → Profile signments elect profile as DRVM:Database Id click on Status & Manage Measurements Communication Agent MPs Diamter Common MPs Diamter Common MPs Diamter Common MPs Diamter Common MPs Diamter Common MPs Diamter Common Diamter Common Diamte		MP Profile UDRVM:Databas UDRVM:Databas UDRVM:Databas UDRVM:Databas	curre se ▼ The Virtu se ▼ The Virtu se ▼ The Virtu se ▼ The Virtu	Int value current MP Profile fo alized UDR-MP on uurrent MP Profile fo alized UDR-MP on alized UDR-MP on current MP Profile fo alized UDR-MP on	r BL908050105- DCUDR Rack-M r BL908050105- DCUDR Rack-M r BL908050106- OCUDR Rack-M I BL908050106- OCUDR Rack-M
		Main Menu: Diameter Common         UDR-MP       MP Profile         UDRPV01-MP-1       UDRVM:Database ▼         UDRPV01-MP-2       UDRVM:Database ▼         Single Server Configuration         Main Menu: Diameter Common         UDR-MP         UDR-MP         UDRV01-MP-2         UDRVM:Database ▼	n -> MPs -> Profile As current value The current MP Profile for I Virtualized UDR-MP on OC The current MP Profile for I Virtualized UDR-MP on OC on: n -> MPs -> Profile As current value The current Value	signments	Database. rries 30 running Datab Database. rries 30 running Datab Database. rries 30 running Datab	ase application ase application	Wed Apr 15 13:23:33
5.	Active SOAM VIP Select <u>Main Menu</u> → Diameter → Maintenance → Applications as shown on the right.	Main Menu     Administration     Administration     Administration     Administration     Administration     Administration     Administration     Administration     Alarms & Events     Security Log     Status & Manage     Measurements     Measurements     Communication Agent     Diameter     Admineter     Admineter     Admineter     Route Lists     Route Groups     Route Groups     Peer Nodes     Applications	Main Menu: I Filter - DSR Application Na SPR	Diameter -> M me MP Server Hostname MP	Admin State Enabled	ce -> Applic Operational Status Available	ations Operational Re Normal

# Procedure 18: Configure SPR Application on MP

Procedure 18: Configure SPR Application on MP

Step	Procedure				Result			
6.	Active SOAM VIP	Normal Capacity Co	onfiguratio	on:				
	1) Select the	Main Menu: Dian	neter ->	Maintenan	ice -> Appl	ications		
	"SPR" Application	Filter -						— Mon Nov
	using the mouse and holding the	DSR Application Name	MP Server Hostname	Admin State	Operational Status	Operational Reason	Congestion Level	Time of
	Ctrl key. The line	SPR	MP-1	Disabled	Unk	Unk	Unk	Unk
	entries should be	SPR	MP-3	Disabled	Unk	Unk	Unk	Unk
	GREEN	SPR	MP-2	Disabled	Unk	Unk	Unk	Unk
	ONLLIN.	SPR	MP-4	Disabled	Unk	Unk	Unk	Unk
	2) Click on Enable Button	Low Capacity Conf Main Menu: Dian	iguration: neter ->	Maintenan	ce -> Appli	ications		- Mon Noi
		Filter 🔻						
		DSR Application Name	MP Server Hostname	Admin State	Operational Status	Operational Reason	Congestion Level	Time of
		SPR	MP-1	Disabled	Unk	Unk	Unk	Unk
		SPR	MP-2	Disabled	Unk	Unk	Unk	Unk
		Main Menu: Diar	MP Server Hostname MP-1 Disable	Maintenan Admin State Disabled	Operational Status Unk	Operational Reason	Congestion Level Unk	Time of
7	Active SOAM VIP	Filter - Info	•					
	The user should be presented with a banner information message stating <b>"Enabled</b> <b>application"</b> .	SPR SPR SPR	• Enabled MP-3 MP-2	applications on Enabled Enabled	4 MPs Unk Unk			
_	Active SOAM VIP	Wolsome guind	min (Logout)					
8.	Click the " <b>Logout</b> " link on the server GUI.	Fri Nov 18 14:43:2 ge = A 1-32-character stri at least one alpha and m	Minin Logodi Help 32 2011 UTC ng. ust					

	Procedure 18:	Configure	SPR Ap	plication	on MP
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Step	Procedure	Result
9.	Active NOAMP VIP The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login         Thu Nov 17 16:03:36 2011 UTC         Log In         Enter your username and password to log in         Username: guiadmin         Password:       Orange password         Change password       Change password         Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0 or 8.0 with support for JavaScript and cookies.
10.	Active NOAMP VIP The user should be presented the OCUDR Main Menu as shown on the right.	<b>Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&amp;P)</b> Main Menu         Administration         Administration         Configuration         Alarms & Events         Security Log         Status & Manage         Measurements         Communication Agent         Diameter         Help         Logout

Procedure 18:	Configure SP	R Application on MP
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Step	Procedure					Resul	t				
11.	Active NOAMP VIP Verify service appears on NOAMP GUI page Select Main Menu → Communication Agent → Maintenance	Normal Capcity C Connected using XMI to N Main Menu Administration Configuration Alarms & Events Security Log Status & Manage Configuration Configuration Maintenance Connection S Connection S Alarms & Events Connection S Connection S Conne	Configu D-A (ACTIV ent Status ces Stati Status	ration: /E NETWORK Main Men Filter - Reporti + MP-1 + MP-2 + MP-3 + MP-4 + NO-A	OAM&P) nu: Con	mmunication Resource Name Udrbe Udrbe Udrbe Udrbe Udrbe	Agent -> Ma Number of Subresources 1 1 1 1 1 1	intenance - User/Provider User User User User User User Provider	> HA Resou Status Availat Availat Availat	Welcom Service: — Mon Nov C rce Routing le le le	e guiadmin [Lc s Status Available Sub Resources 1 of 1 1 of 1 1 of 1 1 of 1 
	→ HA Services Statusas shown on the right.	Reporting Server     UDRPV01-MP-1     UDRPV01-MP-2     UDRPV01-NO-A     Single Server Corr	Resource UDR-HA App UDR-HA App UDR-HA App	ion:	Numbo Subres 1 1 1	er of sources	User/Provider User User Provider	Resource Ro Status Available Available	uting	Available Resourc 1 of 1 1 of 1 	Sub es
		Reporting Server      UDRPV01-MP-1	Resource UDR-HA App	ce Name AS-UDR-	Numbe Subres	er of sources	User/Provider User	Resource Ro Status Available	uting	Available Resourc 1 of 1	es
12.	Active NOAMP VIP Click the "Logout" link on the server GUI.	Welcome guia Fri Nov 18 14:43 ge = A 1-32-character s at least one alpha and	admin [L 3:32 201 string. must	ogout] ≯Help 1 UTC	0.55						

# 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. This procedure is optional and should be executed only if ComAgent Service is required to be configured on XSI Network.

### **Requirements:**

- Procedure 14: OAM Pairing for the Primary NOAMP Servers has been completed.
- Procedure 15: Pairing the OAM Servers for SOAM or DR NOAMP sites has been completed.

**OCUDR 10.0.1** 

• Procedure 16: Configuring MP Server Groups has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

Step	Procedure	Result
NOTE config	: This procedure is gured on XSI Netwo	optional and should be executed only if ComAgent Service is required to be ork.
1	Create bond	For Toplogy 4 and Topology 4A ONLY:
	interface for signaling network on NOAMP <b>for</b>	Deployments with two pairs of enclosure switches ( <b>Toplogy 4</b> and <b>Topology 4A</b> in reference [6]) will host XSI on <b>bond1</b> :
	Toplogy 4 and Topology 4A ONLY	Execute Step 2 - 7 on all NOAMP servers
2	NOAMP Server :	login as: admusr
	1) Access the command prompt.	admusr@10.250.xx.yy's password: <admusr_password> Last login: Mon Jul 30 10:33:19 2012 from 10.25.80.199 [admusr@pc9040833-no-a~]#</admusr_password>
	<b>2)</b> Log into the NOAMP server as the " <b>admusr</b> " user	
3.	NOAMP Server:	*** TRUNCATED OUTPUT ***
	Output similar to that shown on the right will appear as the server access the command prompt.	<pre>VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomcol/cm5.16 PRODPATH= RELEASE=5.16 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/usr/TKLC/ awptransportmgr:/usr/TKLC/awpss7:/usr/TKLC/exhr PRODPATH=/opt/comcol/prod RUNID=00 [admusr@pc9040833-no-a ~]#</pre>
4.	NOAMP Server :	[admusr@ pc9040833-no-a ~]\$ <b>su -</b>
	Switch to " <b>root</b> " user.	password: < <b>root_password&gt;</b>

	Procedure 19:	Configure	NOAMP	Signaling	Interfaces
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Step	Procedure	Result	
5.	NOAMP Server:	Toplogy 4 and Topology 4A ONLY:	
	Add bond for signaling	Deployments with two pairs of enclosure switches ( <b>Toplogy 4</b> and <b>Topology 4A</b> in reference [6]) will host XSI on <b>bond1</b> :	
	[Topology 4 only]	<pre># netAdm adddevice=bond1onboot=yesbootproto=none Interface bond1 added</pre>	
6.	NOAMP Server:	Toplogy 4 and Topology 4A ONLY:	
	Bond interfaces eth11 and eth12 for signaling [Topology 4 only]	Deployments with two pairs of enclosure switches ( <b>Toplogy 4</b> and <b>Topology 4A</b> in reference [6]) will host XSI on <b>bond1</b> : # netAdm setdevice=bond1bondInterfaces=eth11,eth12 Interface bond1 updated	
7.	NOAMP Server: Bring up bond1 on the server Note: Output similar to that shown on the right may be observed	Restart the network interfaces: # ifup bondl RTNETLINK answers: File exists Note: If the output returns any errors like FAILED, please stop and contact My Oracle Suppor (MOS) before continuing.	rt
8.	Active NOAMP VIP Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active NOAMP site using "https://"	Certificate Error: Navigation Blocked - Windows Internet Explorer   Image: State Browser   Image: Big Browser <t< th=""><th></th></t<>	

FIOLEUMIE 13. CONTINUE NOAME SIGNALING INTERACES	Procedure 19	9:	Configure	NOAMP	Signaling	Interfaces
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Step	Procedure	Result
9.	Active NOAMP VIP The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Log In       Thu Nov 17 16:03:36 2011 UTC         Log In       Enter your username and password to log in         Username:       guiadmin         Password:       Change password         Change password       Change password         Welcome to the Tekelec System Login.       Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0 or 8.0 with support for JavaScript and cookies.
10.	Active NOAMP VIP The user should be presented the Main Menu as shown on the right.	Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&P)   Main Menu   Administration   Administration   Configuration   Alarms & Events   Security Log   Status & Manage   Measurements   Communication Agent   UDR   Diameter   Help   Logout
11.	Active NOAMP VIP Select → Configuration → Network → Devices as shown on the right.	Connected using VIP to pc9040833-no-a (ACTIVE NETWORK OAM&P)         Main Menu         Administration         Administration         Services         Services         Servers         Services         Services         Services         Servers         Services         Services         Server Groups         Network         Networks         Devices         Rottes         Alarms & Events         Security Log         Status & Manage             • Check off" the associated Check Box as addition is completed for each Server.

Procedure 19:	<b>Configure NOAMP</b>	Signaling Interfa	ces

Step	Procedure	Result		
12.	12.       Active NOAMP VIP       Click on the desired NOAMP tab.         Output similar to that shown below may be observed.       Insert Device on BL119122301-no-1a			
Click on Insert.		General Options       Mill Monitoring Options       ARP Monitoring Options       IP Interfaces         Field       Value       Description         Bonding       Select the device type. It cannot be changed after device is created. [Default = N/A. Range = Bonding, Vian, Alias.]         Device Type       Vian       Select the device type. It cannot be changed after device. Disabled for non-bonding devices. [Default = MII. Options = MII, ARP.]         Start On Boot       Image: Choose a monitoring style to use with a bonding device. Disabled for non-bonding devices. [Default = MII. Options = MII, ARP.]         Start On Boot       Enable       Start the device, and also start on boot. [Default = nabled]         Boot Protocol       None       Select the boot protocol. [Default = None, Range = None,DHCP]         bond0       bond0.3       bond0.4         bond0.4       bond0.5       eth01         eth01       The base device(s) for Bonding, Alias and Vian device types. Alias and Vian devices require 1 selection: Bonding devices per device type.]         eth11       eth12       eth21         eth22       eth22		
		NO-A (XSI-1) NO-B (XSI-1)		
13.	Active NOAMP VIP 1. Select Device Type as Vlan and 2. Select Base	Click on the <b>General Options</b> tab. Select Device Type as Vlan and Select Base Device as Signaling Bond Interface i.e. bond0 on Topology 1 and Topology 1A and bond1 on Topology 4 and Topology 4A Output similar to that shown below may be observed.		
	Device as Signaling Bond Interface i.e. bond0 on Topology 1 and Topology 1A and bond1 on Topology 4 and Topology 4A	Insert Device On BLI19122301-no-1a         General Options       MII Monitoring Options       A P Monitoring Options       IP Interfaces         Field Value       Description         Device Type       Value       0		

Step	Procedure	Result				
14.	Active NOAMP VIP Add an xsi IP Address.	Click on the IP Interfaces tab. Click the Add Row button. Output similar to that shown below may be observed. Insert Device on BL119122301-no-1a				
		General Options MII Monitoring Options ARP Monitoring Options IP Interfaces				
		IP Address List: Add Row				
		10.240.168.91 XSI1 (10.240.168.96/27) ▼ Remove				
		Ok Apply Cancel				
		Set the Network Name to xsi1.				
		Click on the Ok button.				
		• "Check off" the associated Check Box as addition is completed for each Server.				
		NO-A (XSI-1) NO-B (XSI-1)				
15.	Repeat Steps 11-1	<b>4</b> for each NOAMP and its Signaling network to be used for ComAgent.				

Procedure 19: Configure NOAMP Signaling Interfaces

<b>Procedure 19</b>	: Configure	NOAMP	Signaling	Interfaces
			• . g a g	

Step	Procedure	Result					
16.	Active NOAMP VIP Select Main Menu → Configuration → Network → Routes as shown on the right.	Main Menu Administration Configuration Network Elements Network Devices Rourtes					
17.	Active NOAMP VIP Insert a new route for the NOAMP for Primary Site.	Click on the desired <b>Primary Site Server Group</b> tab on the top line. Then click on the <b>Entire Server Group</b> tab on the line below <b>Server Group</b> line. Output similar to that shown below may be observed. <b>Main Menu: Configuration -&gt; Network -&gt; Routes</b>					
		Entire Server Group BL119122301-no-1a BL119122303-no-1b					
		Route Type Destination Netmask Gateway					
		Click on the Insert button  • "Check off" the associated Check Box as addition is completed for each Network.  XSI-1					

Step	Procedure	Result						
18.	Active NOAMP VIP	Output similar to that shown below may be observed. Main Menu: Configuration -> Network -> Routes [Insert]						
	Add xsi signaling route to NOAMP for <b>Primary Site</b>							
		Insert R	Insert Route on S1_NO_SG					
		Field	Field Value Description					
		Route Type	●Net ○Default ○Host*	Select a route type. [Default = N/A. Options = Net, Default, Host. ` default route on a given target machine.]				
		Device	bond0.5 • *	Select the network device name through which traffic is being ro automatically, if possible. [Default = N/A. Range = Provisioned d				
		Destination	10.240.168.64	The destination network address. [Default = N/A. Range = Valid (IPv6) format.]				
		Netmask	255.255.255.224	A valid netmask for the network route destination IP address. [De (IPv4 or IPv6) or dotted decimal (IPv4) format.]				
		Gateway IP	10.240.168.97	The IP address of the gateway for this route. [Default = N/A. Ran hex (IPv6) format.]				
		Ok Apply Cancel						
		Set Route Set Device Enter Dest connect to Enter Netm Enter Gate Click Appl	Type to desired value to Signaling Interface tination: This is the addre Primary Site NOAMP on mask for the DR Site Sign eway IP : This is the gatew y button eck off" the associated C	ess of the DR Site Signaling network address of MPs that will the signaling network, aling network. way for OCUDR Primary Site signaling network <b>heck Box</b> as addition is completed for each <b>Network</b> .				
			XSI-1					

Step	Procedure	Result						
19.	Active NOAMP VIP Insert a new route for the NOAMP for DR Site	Click on the desired <b>DR Site Server Group</b> tab on the top line. Then click on the <b>Entire Server Group</b> tab on the line below <b>Server Group</b> line. Output similar to that shown below may be observed. <b>Main Menu: Configuration -&gt; Network -&gt; Routes</b>						
	Dir One.							
		Entire Network	S1_MP_SG	S1_NO_SG	S1_S0_SG	S2_MP_SG	\$2_NO_\$G	S2_S0_SG
		Entire Server Grou	p BL1210	81301-NO-2A	BL121081303	-NO-2B		
		Route Type	Des	tination	Netm	ask	Gateway	
		Click on the Insert	button Ins	ted Check Bo	<b>x</b> as addition	is completed	for each <b>Netw</b>	'ork.

Step	Procedure	Result					
20.	Active NOAMP VIP	Output similar to that shown below may be observed. Main Menu: Configuration -> Network -> Routes [Insert]					
	Add xsi signaling route to NOAMP for <b>DR Site</b>						
		Insert Route on S2_NO_SG					
		Field Value Description					
		Route Type Obefault Host * Select a route type. [Default = N/A. Options = Net, Default, Host. ' default route on a given target machine.]					
		Device bond0.5 •	Select the network device name through which traffic is being ro automatically, if possible. [Default = N/A. Range = Provisioned d				
		Destination 10.240.168.96	The destination network address. [Default = N/A. Range = Valid (IPv6) format.]				
		Netmask 255.255.255.224	A valid netmask for the network route destination IP address. [De (IPv4 or IPv6) or dotted decimal (IPv4) format.]				
		Gateway IP 10.240.168.65	The IP address of the gateway for this route. [Default = N/A. Ran hex (IPv6) format.]				
			Ok Apply Cancel				
	Active NOAMP	Set Route Type to desired value Set Device to Signaling Interface Enter Destination: This is the address of the Primary Site Signaling network address of MPs that will connect to DR Site NOAMP on the signaling network, Enter Netmask for the Primary Site Signaling network. Enter Gateway IP : This is the gateway for OCUDR DR Site signaling network as configured in Procedure 3, Step 10. Click Apply button • "Check off" the associated Check Box as addition is completed for each Network. XSI-1					
21.	VIP: Click the "Logout" link on the server GUI.	Fri Nov 18 14:43:32 2011 pe = A 1-32-character string. at least one alpha and must	gout] Help UTC				
	THIS PROCEDURE HAS BEEN COMPLETED						

8.10 Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity RMS or Low Capacity C-Class)

This procedure configures XSI IP Interface and adds the XSI signaling route for all NOAMP Virtual Servers on Low Capacity C-Class.

**Requirements:** 

- **Procedure 14: OAM Pairing for the Primary NOAMP Servers** has been completed.
- Procedure 15: Pairing the OAM Servers for SOAM or DR NOAMP sites has been completed.
- **Procedure 16: Configuring MP Server Groups** has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

#### Procedure 20: Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity C-Class)

Step	Procedure	Result		
1.	Active NOAMP VIP Launch an approved web browser and connect to the NOAMP Server A IP address	Certificate Error: Navigation Blocked - Windows Internet Explorer         Image: Share Browser WebEx -         Image: Share Browser WebEx -         Image: Share Browser WebEx -		
		There is a problem with this website's security certificate.         The security certificate presented by this website was not issued by a trusted certificate authority.         The security certificate presented by this website was issued for a different website's address.		
	<b>NOTE:</b> If presented with the "security	Security certificate problems may indicate an attempt to fool you or intercept any data you send to the server.		
	certificate" warning	We recommend that you close this webpage and do not continue to this website.		
screen shown to the       Image: Click here to dose this webpage.         right, choose the       Image: Continue to this website (not recommended).         following option:       Image: More information		<ul> <li>Click here to dose this webpage.</li> <li>Continue to this website (not recommended).</li> <li>More information</li> </ul>		
	"Continue to this website (not recommended)"			
Procedure 20: Configure NOAMP Signaling Interfaces (vir	irtual NOAMP servers on Low Capacity C-Class)			
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Step	Procedure	Result			
2.	Active NOAMP VIP The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Excelec         Thu Nov 17 16:03:36 2011 UTC         Log In         Enter your username and password to log in         Username: guiadmin         Password:       Orange password         Change password       Change password         Ug In       Userne to the Tekelec System Login.			
3.	Active NOAMP VIP The user should be presented the Main Menu as shown on the right.	User Data Repository   10.2.0-12.3.0     Main Menu   Administration   Administration   Configuration   Alarms & Events   Security Log   Status & Manage   Measurements   Communication Agent   Diameter Common   Diameter   UDR			
Note: R	epeat the steps below	(Steps 4 - 8) for each NOAMP.			
4.	Active NOAMP VIP Select <u>Main Menu</u> → Configuration → Network → Devices as shown on the right.	Main Menul         Administration         Network Elements         Servers         Servers         Device Name         Device Type         Device Options         The ETHERNET         montorType = none         16925422 (MB)         montorType = none         1922 1081 43 (CA)         control       Ethernet         DooPrice Status & Manage			

Procedure 20:	<b>Configure NOAMP</b>	Signaling Interfaces	(virtual NOAMP servers on Low	v Capacity C-Class)

Step	Procedure				R	lesult		
5.	5.       Active NOAMP VIP       Click on the desired NOAMP tab. Select the xsi device for the desired NOAMP       Click on the desired NOAMP tab. Select the xsi1 device. Output similar to that shown below may be observed.         Main Menu: Configuration -> Network -> Devices							
		BL 908050103	-no BI 908050	101-00	BL 908050103-so	BL 908050101-so	BL 908050103-mp	BI 908050101-mp
		Device Name	Device Type	Device	Options	220000010100	IP Interface (Netwo	ork)
		xsi1	Ethernet	onboot bootPre	= yes oto = none		10.196.62.200 (XS fe80::b0:80ff.fe4d:fe	l1) e9d (/64)
		xmi	Ethernet	bootPr onboot	oto = none = yes		10.240.80.145 (XM 10.240.80.144 (/26 fe80::95:21ff.feba:9	11) ) 1433 (/64)
control "Ethernet" bootProto = "dhcp" hwAddr = "02:2A:91:F8:8F:18" onboot = "yes" persistent dhclient = yes					192.168.1.199 (/24) fe80::2a:91ff:fef8:8f18 (/64)			
		imi	Ethernet	bootPre onboot	oto = none = yes		169.254.0.2 (IMI) fe80::38:33ff.feb3:9	9466 (/64)
		• "Check	off" the assoc	iated <b>C</b>	heck Box as add DAMP-B	ition is completed	l for each <b>Server</b> .	
6.	Active NOAMP VIP Edit the xsi device for the desired NOAMP	2     1     0						

Step	Procedure			Result		
7.	Active NOAMP VIP Enable "Start On Boot"	Click on t Check th Output si Main Men	the General Option The Start on Boo milar to that sho the Configuration	tions tab. >t check box (to make it enabled). >wn below may be observed. -> Network -> Devices [Edit] Tue Aug 21 14:40:26 2012 HOT Tue Aug 21 14:40:26 2012 HOT		
		General Opt	ions Mil Monitoring Optic	ons ARP Monitoring Options IP Interfaces		
		Field	Value	Description		
		Device Type	@Ethernet @Bonding @Vtan @Atas	Select the device type. It cannot be changed after device is created. [Default = NIA. Range = Bonding, Vlan, Alias.]		
		Device Monitoring	-Monsoing Type-+	Choose a monitoring style to use with a bonded device. Disabled for non-bonded devices. [Default = MII. Options = MII, ARP1		
		Start On Boot	Start On Boot PEnable Start the device, and also start on boot (Default = enabled)			
		Boot Protocol	None •	Select the boot protocol. [Default = None, Range = [None, DHCP]		
	Base Device(s) Base Interior Base Device(s) Base De			The base device(s) for Bonding, Alias and Vian device types. Alias and Vian devices require 1 selection; Bonding devices require 2 selections. It cannot be changed after device is created. [Default = felk. Range = available base devices per device type.]		
		• "Ch	Cencel eck off" the ass OAMP-A	sociated <b>Check Box</b> as addition is completed for each <b>Server</b> .		

### Procedure 20: Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity C-Class)

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Step	Procedure	Result					
8.	Active NOAMP VIP Add an xsi IP Address.	Click on the IP Interfaces tab. Click the Add Row button. Output similar to that shown below may be observed. Main Menu: Configuration -> Network -> Devices [Edit]					
		Edit Ethernet device xsi1 on pc9040829-mp-1         General Options         Mil Monitoring Options       ARP Monitoring Options       IP Interfaces         IP Address List       Add Row       IP Interfaces         10 250.39.82       XSI11       Remove					
		Set the Network Name to xsi1. Enter the xsi1 IP Address. Click on the Ok button. • "Check off" the associated Check Box as addition is completed for each Server. NOAMP-A NOAMP-B					
9	Repeat <b>Steps</b> 4 · <b>NOTE:</b> If a seco	- 8 for each NOAMP and its Signaling network(s). nd <b>XSI</b> network is present (XSI-2), Steps 4 - 8 must be run for each NOAMP's XSI-2 network.					
10.	Active NOAMP VIP Select <u>Main Menu</u> → Configuration → Network → Routes as shown on the right	Main Menu Administration Configuration Network Elements Network Network Devices Devices<					

Procedure 20: Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity C-Class)

Step	Procedure		Result					
11.	Active NOAMP VIP Insert a new route for the MP.	Click on the desire Then click on the Output similar to the Main Menu: C	ed Server Gro Entire Server nat shown be Configurat	oup tab on the Group tab o low may be o ion -> Ne	e top line. n the line belor oserved. twork -> R	w Server Gro outes	oup line.	
		Entire Network	MP_S1_SG	MP_S2_SG	NO_S1_SG	NO_S2_SG S2-MP3 UD	SO_S1_SG R-S2-MP4	
		Route Type	Dest	ination	Netmas	k	Gateway	
		Click on the Inser  • "Check off"  XSI-1	t button Inst	sert d Check Boy	as addition is	completed fo	r each <b>Network</b>	

### Procedure 20: Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity C-Class)

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Step	Procedure		Result			
12	Active NOAMP	Output similar to that s	hown below may be observed.			
	VIP	Main Menu: Configurati	on -> Network -> Routes [Insert]			
	Add xsi signaling route to MP					
		Insert Route on NO_SG				
		Field Value	Value Description			
		ONet C Default Host *	Onet         Select a route type. [Default = N/A. Options = Net, Default, Host. You can configure at most one IPV4 default route and default route on a given target machine.]			
		Device - Select Device - •	Select the network device name through which traffic is being routed. The selction of AUTO will result in the device being selected automatically, if possible. [Default = N/A. Range = Provisioned devices on the selected server.			
		Destination	The destination network address. [Default = N/A. Range = Valid Network Address of the network in dotted decimal (IPv4) or colon hex (IPv6) format.]			
		Netmask	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	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.]			
			Ok Apply Cancel			
	Repeat <b>Step 11</b> -	Set Device to xsi1 Enter Destination: Th signaling network, Enter Netmask for the Enter Gateway IP: Thi 10. Click Apply button • "Check off" the XSI-1	is is the address of the Diameter Sh clients that will connect to OCUDR on the Diameter Sh client network. Is is the gateway for OCUDR signaling network as configured in Procedure 3, Step associated <b>Check Box</b> as addition is completed for each <b>Network</b> .			
13.						
14.	Active NOAMP VIP: Click the "Logout" link on the server GUI.	Welcome gui Fri Nov 18 14:4 ge = A 1-32-character at least one alpha and	admin [Logout] Relp 3:32 2011 UTC string. must			
		THIS PRC	CEDURE HAS BEEN COMPLETED			

## Procedure 20: Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity C-Class)

### 8.11 Configure ComAgent Service on Signaling Network

This procedure configures ComAgent communication between NOAMP and MP to use Signaling Network. This procedure is optional and should be executed only if ComAgent Service is required to be configured on XSI Network.

**Requirements:** 

- Procedure 17: Configure MP Signaling Interfaces (All SOAM Sites) has been completed.
- Procedure 19: Configure NOAMP Signaling Interfaces (All NOAM Sites) OR
- Procedure 20: Configure NOAMP Signaling Interfaces (virtual NOAMP servers on Low Capacity RMS or Low Capacity C-Class) has been completed.

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.

#### Procedure 21: Configure ComAgent Service on Signaling Network

Step	Procedure	Result						
NOTE confi	OTE: This procedure is optional and should be executed only if ComAgent Service is required to be onfigured on XSI Network.							
1.	Active NOAMP VIP Launch an approved web browser and connect to the XMI Virtual IP Address (VIP) of the Active NOAMP site using "https://"	Certificate Error: Navigation Blocked - Windows Internet Explorer						

Procedure 21:	Configure	<b>ComAgent Service</b>	on Signaling Network
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Step	Procedure	Result
2.	Active NOAMP VIP The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	Tekelec System Login       Thu Nov 17 16:03:36 2011 UTC         Log In       Enter your username and password to log in         Username:       guiadmin         Password:       Change password         Change password       Change password         Welcome to the Tekelec System Login.       Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0 or 8.0 with support for JavaScript and cookies.
3.	Active NOAMP VIP The user should be presented the Main Menu as shown on the right.	EAGLE XG User Data Repository   10.0-10.0.0_10.1.0   Connected using XMI to pc9000724-no-a (ACTIVE NETWORK OAM&P)   Main Menu   Administration   Administration   Configuration   Alarms & Events   Security Log   Alarms & Events   Status & Manage   Measurements   Communication Agent   UDR   Diameter   Help   Logout
4.	Active NOAMP VIP Select <u>Main Menu</u> → Configuration → Services as shown on the right.	Connected using VIP to BL119122303-no-1b (ACTIVE NETWORK OAMAP)         Administration       Main Menu: Configuration -> Services         Administration       Main Menu: Configuration -> Services         Devices       Network Elements         Devices       Name       Intra-NE Network       Inter-NE Network         Services       Servers       Signaling       Unspecified       Unspecified         Places       Place Associations       Mil       XMI         Place Associations       Place Associations       Mil       XMI         Descent       Oad       IMI       XMI         Descent       Oad       IMI       XMI         Descent       Oad       IMI       XMI

Sten	Procedure		Result			
0.00			Rooun			
5.	NOAMP Server A:					
	1) Set the services	Name	Intra-NE Network	Inter-NE Network		
	values as shown	OAM	IMI 🔻	XMI		
	on the right.	Replication	IMI 🔻	XMI		
		Signaling	Unspecified •	Unspecified V		
	2) Select the	HA_Secondary	IMI 🔻	XMI		
	"Apply" dialogue	HA_MP_Secondary	IMI 🔻	XMI		
	button.	Replication_MP	IMI 🔻	XMI		
	3) Select the "OK"	ComAgent	IMI 🔻	XSI1 V		
	dialogue button in		Ok Apply Cancel			
		You must restart all Servers to apply any NOAMP and MP Servers need Note: For Topology 1, any of th ComAgent service : Intra-NE Network : Inter- IMI : XSI1 XSI1 : XSI1 For Topology 4, any of th ComAgent service : Intra-NE Network : Inter- XSI1 : XSI1	OK Cancel OK Cancel d to be restarted. he following configurat -NE Network he following configurat	cions can be used for		
6.	VIP					
	<b>-</b>	Replication	IMI	XMI		
	The user will be	Signaling	Unspecified	Unspecified		
	"Services"	HA Secondary	IMI	XMI		
	configuration	HA MP Secondary	IMI	XMI		
	screen as shown	Replication MP	IMI	XMI		
	on the right	ComAgent	IMI	XSI1		
7.	Restart all NOAMP and MP Servers	# init 6	vecuted on all NOAMP	s and MPs		
		Note. Into shoutd be e	Accured on all NOAMP	5 and Fit 5.		
	THIS PROCEDURE HAS BEEN COMPLETED					

Procedure 21: Configure ComAgent Service on Signaling Network

# 9.0 POST INSTALLATION STEPS

The following items are required for post installation steps.

# 9.1 Steps to Enable Accelerated Provisioning

1.	<ul> <li>Active NOAMP Server:</li> <li>1) Access the command prompt.</li> <li>2) Log into the Active NOAMP server as the "admusr" user.</li> </ul>	<pre>login as: admusr root@10.250.xx.yy's password: <admusr_password> Last login: Mon Jul 30 10:33:19 2012 from 10.25.80.199 [admusr@pc9040833-no-a ~]#</admusr_password></pre>
2.	Active NOAMP Server : Output similar to that shown on the right will appear as the	<b>*** TRUNCATED OUTPUT ***</b> VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomco l/cm5.16
	server returns to a command prompt.	<pre>PRODPATH= RELEASE=5.16 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/ TKLC/awpcommon:/usr/TKLC/awptransportmgr:/usr/ TKLC/awpss7:/usr/TKLC/exhr PRODPATH=/opt/comcol/prod RUNID=00 [admusr@pc9040833-no-a ~]#</pre>
3.	Active NOAMP Server: Switch to "root" user.	[admusr@ pc9040833-no-a ~]\$ <b>su -</b> password: <root_password></root_password>
4.	Enable Accelerated Provisioning from <b>Active</b> <b>NOAMP</b>	Execute the following command on Active NOAMP # iset -fvalue=TRUE ProvOptions where "var='acceleratedResponse'"

# Appendix A. Accessing the iLO VGA Redirection Window

	Appendix A:	Accessing the iLO	VGA Redirection Window	
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Step	Procedure	Result		
1.	Launch an approved web browser and connect to the iLO interface <b>NOTE:</b> <i>Always use https://</i> <i>for iLO GUI access</i>	Home - Windows Internet Explorer          Image: Windows Internet Explorer		
2.	The web browser will display a warning message regarding the Security Certificate.	<ul> <li>Certificate Error: Navigation Blocked</li> <li>There is a problem with this website's security certificate.</li> <li>The security certificate presented by this website was not issued by a trusted of The security certificate presented by this website has expired or is not yet valid. The security certificate presented by this website was issued for a different well Security certificate problems may indicate an attempt to fool you or intercept server.</li> <li>We recommend that you close this webpage and do not continue to this</li> <li>Click here to close this webpage.</li> <li>Continue to this website (not recommended).</li> <li>More information</li> </ul>		
3.	Select the option to "Continue to the website (not recommended)	We recommend that you close this webpage and do not continue to this website.         Image: Click here to close this webpage.         Image: Continue to this website (not recommended).		

Appendix A: Accessing the iLO VGA Redirection Window

4.	Login to the iLO console as "Administrator"	ILOUSE3151YX4.labs.nc.tekelec	. com nc.tekelec.com ssz.te	iLO 4 HP ProLiant Firmware Version 1.20 kelec.com tekelec.com			2
5.	The admin GUI is displayed.	iLO 4 ProLiant DL380p Gen8	iLO Hostname:ILOUSE3151YX2.	labs.nc.tekelec.com nc.tekelec.c	Local U com ssz.tekeled	lser: Administrator c.com tekelec.com	Home   Sign (
		Expand All	iLO Overview				
	Expand the " <b>Remote</b> <b>Console</b> " tab in the left panel of the GUI.	<ul> <li>Information</li> <li>Overview</li> <li>System Information</li> <li>LO Event Log</li> <li>Integrated Management Log</li> <li>Active Health System Log</li> <li>Diagnostics</li> <li>Location Discovery Services</li> <li>Insight Agent</li> <li>Remote Console</li> <li>Virtual Media</li> <li>Power Management</li> <li>Network</li> <li>Remote Support</li> <li>Administration</li> </ul>	Information Server Name Product Name UUID Server Serial Number Product ID System ROM Backup System ROM Integrated Remote Console License Type ILO Firmware Version IP Address Link-Local IPv6 Address iLO Hostname Active Sessions User: Local User: Administrator	hostname1378235948 ProLiant DL380p Gen8 32333536-3030-5355-4533- 313531595832 USE3151YX2 653200-B21 P70 03/01/2013 .NET Java iLO 4 Advanced 1.20 Feb 01 2013 10.250.35.128 fe80::b6b5.2ffffeeb:3d42/64 ILOUSE3151YX2.labs.nc.tekele.com tekelec.com	ec.com	Status System Health Server Power UID Indicator TPM Status NSD-Card Status ILO Date/Time T	OK ON UID OFF of Present of Present ue Sep 17 21:25:43 2013 Source Web UI
		_					
6.	The Remote Console tab	iLO 4			Loc	al User: Administra	itor Home   Si
	is expanded	ProLiant DL380p Gen8	iLO Hostname:ILOUSE3151Y	X2.labs.nc.tekelec.com nc.tekel	lec.com ssz.tel	kelec.com tekelec.c	om C
	Click on the "Remote	Expand All	iLO Overview				
	Console" option	<ul> <li>Information</li> <li>Overview</li> <li>System Information</li> <li>iLO Event Log</li> <li>Integrated Management Log</li> <li>Active Health System Log</li> <li>Diagnostics</li> <li>Location Discovery Services</li> <li>Insight Agent</li> <li>Bernote Console</li> <li>Virtual Media</li> <li>Power Management</li> <li>Network</li> <li>Remote Support</li> <li>Administration</li> </ul>	Information Server Name Product Name UUID Server Serial Number Product ID System ROM Backup System ROM Integrated Remote Consol License Type iLO Firmware Version IP Address Link-Local IPv6 Address iLO Hostname Active Sessions User: Local User: Administrator	hostname1378235948 ProLiant DL380p Gen8 32333536-3030-5355-4533 313531595832 USE31511YX2 653200-B21 P70 03/01/2013 03/01/2013 03/01/2013 e. NET Java iLO 4 Advanced 1.20 Feb 01 2013 10.250.35.128 fe80::b6b5.2fff.feeb.3d42/64 ILOUES151YX2.labs.nct nc.tekelec.com	4 skelec.com com 10.25.80.2	Status System Health Server Power UID Indicator TPM Status SD-Card Status iLO Date/Time	© OK • ON • UID OFF Not Present Tue Sep 17 21:25:43 21 Source Web UI

Appendix A: Accessing the iLO VGA Redirection Window

7.	The Remote Console GUI is displayed Click on the "Launch" button under "Integrated Remote Console"	Within 1000 Performance       Automated LOUSE 21511722 labs and teleded com mas 2 dekeded com 3 dekeded com 3 dekeded a dom mas			
8.	The iLO Console window is displayed. NOTE: The console window resembles an MS- DOS window but DOES NOT have a scroll-back buffer.	Image: Server hostname1378235948 [iLO: ILOUSE3151YX2.labs.nc.tekelec.com nc.tekelec.com ssz.tekelec.com tekelec.com         Power Switch Virtual Drives Keyboard Help         CentOS release 6.4 (Final)         Kernel 2.6.32-358.11.1.el6prere16.5.0_82.22.0.x86_64 on an x86_64         hostname1378235948 log in:			

## Appendix B. Accessing the OCUDR GUI

The user can now launch an approved web browser on this laptop and connect to https://<XMI\_IP\_Address\_for\_NO\_A> to access the OCUDR 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 OCUDR GUI prior to configuring the first OCUDR 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 OCUDR server.		
1.	Log onto the Server	CentOS release 5.6 (Final)	
	in <b>Appendix A.</b>	Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64	
		hostname1260476221 login: root	
	similar to that	Password: <root_password></root_password>	
	shown on the right will appear.		
2.	Server ILO:	<pre># netAdm adddevice=bond0.<xmi_vlan>onboot=yesnetmask=<xmi_netmask>address=<xmi_ip_address_for_noamp_a></xmi_ip_address_for_noamp_a></xmi_netmask></xmi_vlan></pre>	
	Add XMI VLAN to the first OCUDR server	Interface bond0.# added	
	(NOAMP-A)		
3.	Server ILO:	<pre># netAdm adddevice=bond0.<xmi_vlan>route=defaultgateway=<xmi_ip_address_for_default_gateway></xmi_ip_address_for_default_gateway></xmi_vlan></pre>	
	Add route to the default gateway for the first OCUDR site	Route to bond0.# added	
4.	Server ILO:	Restart the network by running the following:	
	Restart the network on the server	<pre># service network restart</pre>	
5.	Server ILO:	<pre>[root@hostname1260476221 ~]# ping</pre>	
	Ping the default gateway to ensure connectivity.       < <t< th=""></t<>		
6. Server ILO [root@hostname1260476221 ~]# exit Log off the ILO CentOS release 5.6 (Final)		[root@hostname1260476221 ~]# <b>exit</b>	
		CentOS release 5.6 (Final)	
	-	Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64	
		[root@hostname1260476221 ~] login:	

Appendix B.1: Creating Temporary External XMI IP Address

### THIS PROCEDURE HAS BEEN COMPLETED

## 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 OCUDR deployments.** 

Note: Interconnects should conform to Section 8 of reference [6].

Appendix B.2: Creating Temporary External XIVI IP Address without Interface Bondi
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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 OCUDR server.		
1.	Log onto the Server	CentOS release 5.6 (Final)	
	in <b>Appendix A.</b>	Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64	
		hostname1260476221 login: root	
	similar to that	Password: <root_password></root_password>	
	shown on the right will appear.		
2.	Server ILO:	<pre>[root@hostname1260476221 ~]# netAdm setdevice=eth01onboot=yesnetmask=<xmi_netmask></xmi_netmask></pre>	
	Add XMI IP	address= <xmi_ip_address_for_noamp_a> Interface_etb01_updated</xmi_ip_address_for_noamp_a>	
	address to the first OCUDR server	[root@hostname1260476221 ~]#	
	(NOAMP-A) and		
	interface eth01		
3.	Server ILO:	<pre>[root@hostname1260476221 ~]# netAdm adddevice=eth01route=defaultgateway=<xmi address="" default="" for="" gateway="" ip=""></xmi></pre>	
	Add route to the	Route to eth01 added	
	default gateway for	[1001@n05thame12004/0221 ~]#	
	site		
4.	Server ILO:	Restart the network by running the following:	
	Restart the network on the server	<pre># service network restart</pre>	
5.	Server ILO:	<pre>[root@hostname1260476221 ~]# ping <xmi_ip_address_for_default_gateway></xmi_ip_address_for_default_gateway></pre>	
	Ping the default gateway to ensure connectivity.	[root@hostname1260476221 ~]#	

6.	Server ILO	[root@hostname1260476221 ~]# <b>exit</b>		
	Log off the ILO	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64		
		[root@hostname1260476221 ~] login:		
	THIS PROCEDURE HAS BEEN COMPLETED			

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

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

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

Appendix B.3: Establishing a	Local Connection for	Accessing OCUDR	GUI (RMS only)
		5	· · · · · · · · · · · · · · · · · · ·

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 OCUDR server.		
1.	Access the SDM-A server's console.	Connect to the UDR-A server's console using one of the access methods described in <b>Section 2.1.2.</b>	
2.	1) Access the command prompt.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64	
	<b>2)</b> Log into the SDM-A server as the " <b>root</b> " user.	hostname1260476221 login: <b>root</b> Password: < <b>root_password</b> >	
3.	Configure static IP 192.168.100.11 on the eth14 port of the SDM-A server.	<pre>[root@hostname1260476221 ~]# netAdm setdevice=eth14 address=192.168.100.11netmask=255.255.255.0onboot=yes [root@hostname1260476221 ~]#</pre>	
4.	<ol> <li>Plug in one end of the Ethernet cable (straight-thru) into the back of SDM-A server ETH14 (top left port).</li> <li>Plug the other end of the Ethernet cable into the laptop's Ethernet jack.</li> </ol>		

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

5.	Access the laptop network interface card's TCP/IP "Properties" screen. <b>NOTE:</b> For this step follow the instruction specific to the laptop's OS (XP, Vista or Win 7).	<ul> <li>Windows XP</li> <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> <li>Select "Internet Protocol (TCP/IP)" and select "Properties"</li> </ul>	<ul> <li>Windows Vista / Win 7</li> <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> <li>Select "Internet Protocol Version 4 (TCP/IPv4)"</li> </ul>		
		Local Area Connection Properties   General Advanced   Connect using: Envolume Gigabit Etheme   Configure This connection uses the following items:   This connection uses the following items: Coffigure   Concel Pile and Printer Sharing for Microsoft Networks   Constall Constaller   Conscription Constall   Transmission Control Protocol/Internet Protocol. The default across diverse interconnected networks.   Show icon in notification area when connected   Notify me when this connection has limited or no connectivity	Local Area Connection Properties   General Advanced   Connect using: Broadcom NetXtreme Gigabit Etheme   Connection uses the following items:   This connection uses the following items:   Image: Construct on the properties   Coc S Packet Scheduler   Coc S Packet Scheduler   Install   Uninstall   Properties   Install   Uninstall   Properties   Show icon in notification area when connected   Notify me when this connection has limited or no connectivity   OK		
6.	<ol> <li>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".</li> <li>Click "Close" from the network interface card's main "Properties" screen.</li> </ol>	Internet Protocol (TCP/IP) Properties         Ceneral         You can get IP settings assigned automatically if your network supports the appropriate IP settings.         Obtain an IP address automatically         IP address:         192.168.100.100         Subnet mask:       255.255.255.0         Default gateway:       .         Obtain DNS server addresses:         Preferred DNS server:       .         Atemate DNS server:       .         Atemate DNS server:       .         OK       Cancel	Local Area Connection Properties         General Advanced         Connect using:         Broadcom NetXireme Gigabit Etheme         Configure         This connection uses the following items:         Content on the Networks         Content on the Networks         Content on Microsoft Networks         Content on the Network Etheme         Constrained at Drive         Wireless Intermediate Drive         Network         Constrained         Notsy sour computer to access resources on a Microsoft network.         Show icon in notification area when connected         Notify me when this connection has limited or no connectivity         Close       Cancel		
	THIS PROCEDURE HAS BEEN COMPLETED				

• The user can now launch an approved web browser on this laptop and connect to <u>https://192.168.100.11</u> to access the OCUDR 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 H	P Rack Mount Servers
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Step	In this procedure you will mount media on HP rack mount servers, for ISO access or other file transfer.			
1.	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.	1) Access the command prompt.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64		
	<b>2)</b> Log into the SDM-A server as the " <b>root</b> " user.	hostname1260476221 login: <b>root</b> Password: < <b>root_password</b> >		
3	HP Server:			
5	Insert the USB flash drive containing the server configuration file into the USB port on the front panel of <b>HP</b> <b>Server</b> .			
		Figure 4 - HP DL380 Front Panel: USB Port		
4.	HP Server: Output similar to that shown on the right will appear as	<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 <enter></enter></pre>		
	the USB flash drive is inserted into the HP Server front USB port.	[root@hostname1260476099 ~]#		
	the USB flash drive is inserted into the HP Server front USB port. Press the <enter> key to return to the command prompt.</enter>	[root@hostname1260476099 ~]#		
5.	high win appear as the USB flash drive is inserted into the HP Server front USB port. Press the <enter> key to return to the command prompt. HP Server:</enter>	[root@hostname1260476099 ~]# [root@hostname1260476099 ~]# <b>df  grep sdb</b>		

OCUDR 10.0.1

6	HP Server:	[root@hostname1260476099 ~]# cd /media/sdb1		
	UDB media may be accessed via the path shown	[root@hostname1260476099 ~]#		
7.	HP Server: When you are finished using the mounted drive, remove the USB flash drive from the USB port on the front panel of the server.	Figure 5 - HP DI 380 Front Panel: USB Port		
	THIS PROCEDURE HAS BEEN COMPLETED			

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

# 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
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Step	In this procedure you transfer.	u will mount media on HP rack mount servers via ILO, for ISO access or other file			
1.	Access the server's ILO VGA.	Connect to the server's ILO VGA using the access method described in <b>Appendix A</b> .			
2.	ILO Remote Console: Select "Virtual Drives" from the top menu bar.	ProLiant - Server: hostname1378235948   iLO: ILOUSE3151YX2:labs.nc.tekelec.com nc.tekelec.com ssz.tekelec.com tekelec.com          Power Switch       Virtual Drives       Keyboard       Help         Image Sile       D:A       Pole       Image Sile       State         Kernel 2.       Image File       Removable Media       State       State         Image File       URL       Removable Media       State       State         Image File       CD-ROM/DVD       VRL       CD-ROM/DVD			

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

HP Server:	ProLiant - Server: hostname1378235948   iLO: ILOUSE3151YX2.labs.nc.tekelec.com nc.tekelec.com			
Select from the menu options presented:	Power Switch Virtual Drives Keyboard Help			
Image File to access files on your laptop client machine.	Kernel 2.       Image File       Removable Media       .5.0_82.22.0.x86_64         W URL       Removable Media         hostname       Image File       CD-ROM/DVD         W URL       CD-ROM/DVD			
<b>URL</b> to access files on the network.				
<b>Folder</b> to open a directory on your client machine.				
<b>CD-ROM/DVD</b> to mount ISO type files.				
Removable Media for other file types.				
HP Server:				
Folder mounting will cause device information to display to console.	[root@pc9000724-no-a ~]# sd 4:0:0:0: [sde] Assuming driv sd 4:0:0:0: [sde] Assuming drive cache: write through sd 4:0:0:0: [sde] Assuming drive cache: write through			
or				
CD-ROM/DVD media may be accessed via the device shown by getCDROM	[root@hostname1260476099 ~] <b># getCDROM</b> Virtual_DVD-ROM sr0 /dev/sr0			
	<ul> <li>HP Server:</li> <li>Select from the menu options presented:</li> <li>Image File to access files on your laptop client machine.</li> <li>URL to access files on the network.</li> <li>Folder to open a directory on your client machine.</li> <li>CD-ROM/DVD to mount ISO type files.</li> <li>Removable Media for other file types.</li> <li>HP Server:</li> <li>Folder mounting will cause device information to display to console.</li> <li>or</li> <li>CD-ROM/DVD media may be accessed via the device shown by getCDROM</li> </ul>			

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

5.	HP Server: Mount device to access its data	[root@pc9000724-no-a ~]# sd 4:0:0:0: [sde] Assuming driv sd 4:0:0:0: [sde] Assuming drive cache: write through			
		<pre>sd 4:0:0:0: [sde] Assuming drive cache: write through # mount /dev/<device_name> /mnt/<mount_name> mount: block device /dev/sde is write-protected, mounting read-only</mount_name></device_name></pre>			
6.	HP Server:				
	When you are finished using the mounted drive, unmount it by	<pre># umount /dev/<device_name></device_name></pre>			
	1) running <b>umount</b>	ProLiant - Server: hostname1378235948   iLO: ILOUSE3151YX2.labs.nc.tekelec.com nc.tekelec.com ssz.tekelec.com tekelec.c     Power Switch Virtual Drives Keyboard Help			
	2) Selecting <b>Virtual</b> <b>Drives</b> menu and clicking the drive option in use to remove its check mark.	Cent0S re Kernel 2. Image File Removable Media Nostname1 V URL Removable Media V URL CD-ROM/DVD V URL CD-ROM/DVD Removable Media V URL CD-ROM/DVD Removable Media Nostname1 V Zurke CD-ROM/DVD Removable Media V Removable Media Nostname1 V Removable Media Nostname1			
	THIS PROCEDURE HAS BEEN COMPLETED				

## Appendix D. HP Hardware Setup

### D.1 HP Blade Firmware Upgrade

This procedure will upgrade the blade server firmware.

### Needed material:

- HP Firmware Maintenance CD/DVD
- HP Solutions Firmware Upgrade Pack Release Notes [5]

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) AND ASK FOR ASSISTANCE.

#### Appendix D.1: HP Blade Firmware Upgrade

Step	Procedure	Result	
1.	Mount the media containing the	Follow steps defined in	
	Firmware software.	C.1 Mounting Physical Media on HP Servers	
or		or	
C.2 Mounting Virtual Media on HP Servers		C.2 Mounting Virtual Media on HP Servers	
to mount the Firmware software on the Active OA		to mount the Firmware software on the Active OA Module.	
2.	Active OA GUI Login	Navigate to the IP address of the active OA. Login as an administrative user.	

Step	Procedure	Result		
<b>3.</b>	OA Web GUI: Access the Device Summary page	On the left pane, expand window. Select the individual blac UID checkbox.	the <b>Device Bays</b> node to display the <b>Device Bay Summary</b> des to be upgraded by clicking and enabling the corresponding	
		IP BladeSystem Onbo	bard Administrator	
		System Status  View Legend Updated Thu Jul 8 2010, 12:51:53	Wizards - Options - Help - Device Bay Summary	
		System Status 0 0 0 0 0	Device List	
		Systems and Devices	Ray Status UID Power State II O IP Address II O Name II O DVD Status	
			1 OK Plack On 10.240.17.31 LOUSE941SWFS Disconnected	
		Rack Overview Rack Firmware	2 OK Ont On 10.240.17.32 LOUSE941SWFT Disconnected	
		Primary: 500.05.01	3 OK Off On 10.240.17.33 ILOUSE941SWH9 Disconnected	
		Enclosure Information	4 OK Blink On 10.240.17.34 ILOUSE941SWH3 Disconnected	
		Enclosure Settings	5 OK Off On 10.240.17.35 LOUSE941SWFJ Disconnected	
		Standby Onboard Administrator	6 OK Off On 10.240.17.36 LOUSE941SWHD Disconnected	
		Device Bays	7 OK Off 0ff 10.240.17.37 LOUSE941SWFV Disconnected	
		1. ESXi-host-joslin 2. ESXi-en501bay2.localdomai	8 OK Off On 10.240.17.38 LOUSE941SWFN Disconnected	
		3. hostname1278553083	☑ 12 OK ● Off On 10.240.17.42 ILOUSE806852T Disconnected	
		<ul> <li>▲ 4. en50501bay4F</li> <li>➡ 5. en50501bay5F</li> </ul>	V 13 OK Off On 10.240.17.43 ILOUSE941SWHB Disconnected	
		6 . ESXI-50106.localdomain     7 . hostname1289427387     8 . hostname1277757484     12 . hostname127775784     12 . hostname1277753866     13 . BLADE15F     Interconnect Bays     Power and Thermal     Users/Authentication     Insight Display  Note: A maximum of 8 b c7000enclosure has mor sessions.	Refresh lades should be upgraded concurrently at one time. If the re than 8 blades they will need to be upgraded in multiple	

|--|

Step	Procedure		Result		
4.	OA Web GUI: Connect to USB	Once the blades are selected, connect them to the ISO on the USB Drive, by selected the <b>Connect to usb</b> item from the DVD menu.			
	Drive	IP BladeSystem Onb	oard Administrator		
		System Status	Wizards 👻 Options 👻 Help 👻		
		View Legend Updated Thu Jul 8 2010, 12:58:24	Device Bay Summary		
			Device List		
		System Status 0 0 0 0 0	UID State - Virtual Power - One Time Boot		
		Systems and Devices	Disconnect Blade from DVD/iso Connect to usb://d1/872-2141-102-FW900.2010_0403.9	3.iso Address iLO Name iLO DVD Status	
		Rack Overview	1 OK Blink On	10.240.17.31 ILOUSE941SWFS Disconnected	
		Rack Firmware		10.240.17.32 ILOUSE941SWFT Disconnected	
		Primary: 500_05_01		10.240.17.34 LOUSE941SWH3 Disconnected	
		Enclosure Settings	□ 5 OK Off On	10.240.17.35 ILOUSE941SWFJ Disconnected	
		Active Onboard Administrator Standby Onboard Administrator	🗌 6 🛇 ОК 👁 оff Ол	10.240.17.36 ILOUSE941SWHD Disconnected	
		Device Bays	П 7 🖉 ок 🗶 off Off	10.240.17.37 ILOUSE941SWFV Disconnected	
		2. ESXI-n501bay2.localdomai	□ 8 ©ок ● off On	10.240.17.38 ILOUSE941SWFN Disconnected	
		<ul> <li>3. hostname1278553083</li> <li>4. en50501bay4F</li> </ul>	✓ 12 ○ OK ● Off On	10.240.17.42 ILOUSE8068S2T Disconnected	
		5. en50501bay5F	N 13 OK Off On	10.240.17.43 ILCUSE9415WHB Disconnected	
		7. hostname1269427367		Refresh	
5.	Verify Drive Connection	Once each blade has mo an iLO DVD Status as Device List UID State - Virtual Power	onted the ISO media the Devi S Connected for each blade t One Time Boot + DVD +	ce List table should indicate that was previously selected.	
		Bay Status UID	Power State iLO IP Address	iLO Name iLO DVD Status	
		🔲 1 🙆 OK 🌑 Blir	nk On 10.240.17.31	ILOUSE941SWFS Disconnected	
		🗌 2 🖉 OK 🌑 Of	On 10.240.17.32	ILOUSE941SWFT Disconnected	
		🗌 3 📀 OK 🔍 Of	On 10.240.17.33	ILOUSE941SWH9 Disconnected	
		🔲 4 🙆 ОК 🌑 Віл	lk On 10.240.17.34	ILOUSE941SWH3 Disconnected	
		🔲 5 📀 ок 🌑 оf	On 10.240.17.35	ILOUSE941SWFJ Disconnected	
		🗌 6 🥝 ок 🌑 оf	On 10.240.17.36	ILOUSE941SWHD Disconnected	
		🗌 7 📀 ок 🌑 оf	Off 10.240.17.37	ILOUSE941SWFV Disconnected	
		🔲 8 🥝 ок 🌑 оf	On 10.240.17.38	ILOUSE941SWFN Disconnected	
		🔲 12 📀 ОК 🔍 Оf	On 10.240.17.42	ILOUSE8068S2T Connected	
		🔲 13 🛇 ОК 🌑 оf	On 10.240.17.43	ILOUSE941SWHB Connected	
		<b>Note:</b> The <b>Refresh</b> butto blades.	n may need to be clicked in ord	Refresh der to see the current status of all	

Appendix D	1: HP	Blade	Firmware	Upgrade	

Step	Procedure				Result		
6.	<b>OA Web GUI:</b> Power Down Blades	If needed, reseled Momentary Pres	et the UID <b>s</b> option u	checkbox for Inder the Vir	each blade to b tual Power r	be upgraded and menu.	d then select the
		Device List			_	_	
		UID State 👻 Virtu	al Power 👻	One Time Boot	▼ DVD ▼		
		Bay Bay	mentary Press iss and Hold	s ower State	iLO IP Address	iLO Name	iLO DVD Status
			d Boot	n	10.240.17.31	ILOUSE941SWFS	Disconnected
		2 000	• 011		10.240.17.32	ILOUSE941SWFT	Disconnected
		🗌 з 📀 ок	Off	On	10.240.17.33	ILOUSE941SWH9	Disconnected
		🔲 4 🖉 ок	Blink	On	10.240.17.34	ILOUSE941SWH3	Disconnected
		🔲 5 🛇 ок	Off	On	10.240.17.35	ILOUSE941SWFJ	Disconnected
		🛛 6 🛇 ок	Off	On	10.240.17.36	ILOUSE941SWHD	Disconnected
		🗌 7 🛇 ок	Off	Off	10.240.17.37	ILOUSE941SWFV	Disconnected
		🗆 8 🛇 ок	Off	On	10.240.17.38	ILOUSE941SWFN	Disconnected
		✓ 12 ○ OK	Off	On	10.240.17.42	ILOUSE8068S2T	Connected
		🗹 13 🛇 ок	Off	On	10.240.17.43	ILOUSE941SWHB	Connected
7.	Verify Power Down	Device List	able will in	dicate the Po	wer State Of	each select bla	ide to be off.
		UID State - Virtua	I Power 🔻	One Time Boot	▼ DVD ▼		
		Bay Status	UID	Power State	iLO IP Address	iLO Name	iLO DVD Status
		□ 1 ⊘ок	Blink	On	10.240.17.31	ILOUSE941SWFS	Disconnected
		□ 2 ⊘ок	Off	On	10.240.17.32	ILOUSE941SWFT	Disconnected
		□ з ⊘ок	Off	On	10.240.17.33	ILOUSE941SWH9	Disconnected
		🛛 4 📀ок	Blink	On	10.240.17.34	ILOUSE941SWH3	Disconnected
		□ 5 ⊘ок	Off Off	On	10.240.17.35	ILOUSE941SWFJ	Disconnected
		🗌 6 🥝ок	Off	On	10.240.17.36	ILOUSE941SWHD	Disconnected
		🗌 7 💴 ок	Off	Off	10.240.17.37	ILOUSE941SWFV	Disconnected
		🗌 8 🙆 ок	Off	On	10.240.17.38	ILOUSE941SWFN	Disconnected
		🗌 12 📀 ок	Off	Off	10.240.17.42	ILOUSE8068S2T	Connected
		🔲 13 🥥 ок	Off Off	Off	10.240.17.43	ILOUSE941SWHB	Connected
		<b>Note:</b> The <b>Refres</b> blades.	h button	may need to b	be clicked in orc	ler to see the cu	Refresh

Appendix D.1: HP	Blade Firr	nware Upgrad	e

Step	Procedure	Result				
8.	<b>OA Web GUI:</b> Initiate Firmware Upgrade	To power the blades back Steps 7 and 8 this time be blade.	To power the blades back on and begin the automated firmware upgrade process, repeat Steps 7 and 8 this time being sure the <b>Power State</b> indicates <b>On</b> for each selected blade.			
9.	<b>OA Web GUI:</b> Monitor Firmware Upgrade	From this point on each blade will boot into an automated firmware upgrade process that will last between 20 to 25 minutes. During this time all feedback is provided through the UID lights. While the update process is running, the UID light blinks. The UID lights will not blink until the server fully boots and the firmware upgrades have started to be applied. If no upgrades are needed the UID lights will not blink, but the server will still reboot and the iLO DVD will disconnected after completion.				
		UID State - Virtual Power -	One Time Boot	▼ DVD ▼		
		Bay Status UID	Power State	iLO IP Address	iLO Name	iLO DVD Status
		🗌 1 🖉 OK 🥥 Blink	On	10.240.17.31	ILOUSE941SWFS	Disconnected
		🗌 2 🔮 OK 🌑 Off	On	10.240.17.32	ILOUSE941SWFT	Disconnected
		🔲 3 🥝 OK 🌑 Off	On	10.240.17.33	ILOUSE941SWH9	Disconnected
		🗌 4 🥝 OK 🔵 Blink	On	10.240.17.34	ILOUSE941SWH3	Disconnected
		🗌 5 🥝 ок 🌑 оff	On	10.240.17.35	ILOUSE941SWFJ	Disconnected
		🔲 6 🥝 ок 🌑 оff	On	10.240.17.36	ILOUSE941SWHD	Disconnected
		🗌 7 🥝 ок 🌑 оff	Off	10.240.17.37	ILOUSE941SWFV	Disconnected
		🗌 8 📀 OK 🗶 Off	On	10.240.17.38	ILOUSE941SWFN	Disconnected
		□ 12 OK Off	On	10.240.17.42	ILOUSE8068S2T	Disconnected
		□ 13 OK Off	On	10.240.17.43	ILOUSE941SWHB	Disconnected
		Upon a successful firmwa Status of OK, UID of Of the blades will automatical Note: Make sure all blades connected after their UIDs manually by selecting Disc led is solid, a failure has ou remote console or a kvm of If necessary, repeat Steps upgraded. Proceed to the	re upgrade, th f and the iLd ly be rebooted s have discont have stopped connect Blad courred during onnection to v 4 through 10 next step.	ne <b>Device Lis</b> O <b>DVD Status</b> d. I blinking and S <b>e from DVD/IS</b> of the firmware u view the error. for the remainin	at table will list as <b>Disconne</b> ontinuing. If any tatus=OK, disco <b>D from</b> the DVD pgrade. Use the ng blades in the	Refresh each blade with a octed. At this time blades are still onnect them o menu. If the UID o iLO's integrated enclosure to be
10.	<b>OA Web GUI:</b> Remove USB Flash Drive	The USB flash drive may r	now safely be	removed from t	he Active OA m	odule.
11.	<b>OA Web GUI:</b> Update Firmware Errata	Check the HP Solutions Fi any firmware errata items	rmware Upgra that apply to th irectory match	ade Pack Relea he server being hing the errata's	se Notes [3] to s upgraded. ID in the /errata	see if there are
		HP Misc Firmware ISO. The README file detailing the	ne errata direction station statio	tories contain theps.	ne errata firmwa	re and a

Appendix D.1: HP Blade Firmware Upgrade

Step	Procedure	Result
		THIS PROCEDURE HAS BEEN COMPLETED

# D.2 BIOS Settings for HP Blade and Rack Mount Servers

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

## Needed material:

• None

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) AND ASK FOR ASSISTANCE.

Appendix D.2:	BIOS Settings for HP Blade and Rack Mount Servers

Step	In this procedure yo	a will configure BIOS settings for HP hardware.			
1.	Access the HP server's console.	Connect to the server's console using one of the access methods described in <b>Section 2.1.2.</b>			
2.	Access the HP server's console according to its hardware type	For Rack Mount Servers (RMS), con access methods described in <b>Sectio</b> For Blade servers: 1. Navigate to the IP address 2. Navigate to <b>Enclosure Info</b> 3. Click on <b>Integrated Remo</b>	on 2.1.2. of the active OA. Login as ormation > Device Bays > ote Console	e using one of the an administrative user. <blade 1=""> &gt; iLO</blade>	
		<ul> <li>Enclosure Information</li> <li>Enclosure Settings</li> <li>Active Onboard Administrator</li> <li>Standby Onboard Administrator</li> <li>Device Bays</li> <li>1 btate01</li> <li>IO</li> <li>Port Mapping</li> <li>2. blade02</li> <li>3. blade03</li> <li>4. blade04</li> <li>5. DSR02blade05</li> <li>6. hostname1303224145</li> <li>7. hostname1303224159</li> <li>9. DSR03blade09</li> <li>10. DSR03blade10</li> <li>11. DSR04blade11</li> <li>Note: This will launch the iLO int</li> </ul>	Firmware Version iLO Remote Management Clicking the links in this sectides not require an iLO usern If your browser settings prever Web Administration Access the iLO web user inter Integrated Remote Consol Access the system KVM and the Explorer) Integrated Remote Consol Re-size the Integrated Remote client desktop. erface for that blade. If the system KVM and the system for the syste	1.81 Jan 15 2010 Ion will open the requirement of password to int new popup window rface. e control Virtual Powe e Fullscreen Console to the same his is the first time	
		the iLO is being accessed, you w web browser, follow the on scree	vill be prompted to install en instructions to do so.	an addon to your	

Appendix D.2:	BIOS Settings for HP Blade and Rack Mount Servers	
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3.	Access the Server	Reboot the server.
	603	For Blade, this can be achieved by selecting Cold Boot from under the Integrated Console's Power Switch menu.
		<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.
		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.
		HP ProLiant
		ProLiant System BIOS - P64 (03/01/2010) Copyright 1982, 2010 Hewlett-Packard Development Company, L.P.
		2 Processor(s) detected, 8 total cores enabled, Hyperthreading is enabled Proc 1: Intel(R) Xeon(R) CPU E5540 @ 2.53GHz Proc 2: Intel(R) Xeon(R) CPU E5540 @ 2.53GHz QPI Speed: 5.8 GT/s HP Power Profile Mode: Balanced Power and Performance Power Regulator Mode: Dynamic Power Savings
		Advanced Memory Protection Mode: Advanced ECC Support Redundant ROM Detected - This system contains a valid backup system ROM. Inlet Ambient Temperature: 19C/66F
		Press any key to view Option ROM messages F9 = Setup F11 = Boot Menu
		<b>Expected Result:</b> ROM-Based Setup Utility is accessed and the ROM-Based Setup Utility menu will be displayed.

Appendix D.2:	BIOS Settings for HP Blade and	Rack Mount Servers
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4.	Set Server CMOS	Scroll to Date and Time and press [ENTER]			
	CIUCK	Set the date and time and press [ENTER].			
		ROM-Based Setup Utility, Version 3.00 Copyright 1982, 2010 Hewlett-Packard Development Company, L.P. System Options Power Management Op PCI IRQ Settings PCI Device Enable/D Boot Controller Ord Boot Controller Ord Date and Time Server Asset Text Advanced Options Utility Language HP ProLiant DL380 G6 N: USE016N3BL Oduct ID: 494329-B21 PIOS P62 03/01/2010 Chup Version 03/01/2010 Otblock 01/22/2010 User Management Controller - 2.9 Server Asset Text Advanced Options Utility Language Hodify Date and Time (ENTER> to Save Changes, <esc> to Main Memu</esc>			
		Expected Result: Correct Time & Date is set.			
5.	Configure iLO serial port settings (RMS Only)	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.			
		Select System Options option and press [ENTER].			
		Select Serial Port Options option and press [ENTER].			
		Change Embedded Serial Port to COM2 and press [ENTER].			
		Change Virtual Serial Port to COM1 and press [ENTER].			
		Press <esc> two times</esc>			
6.	Configure Power Profile settings	The Power Profile on HP servers used in OCUDR need to be configured for optimum OCUDR software performance on both RMS and blade hardware.			
		Select Power Management Options option and press [ENTER].			
		Select HP Power Profile option and press [ENTER].			
		Change it to Maximum Performance and press [ENTER].			

Appendix D.2:	BIOS Settings for HP Blade and Rack Mount Servers
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<b>7</b> .	Configure Power Regulator settings	The Power Regulator on HP servers used in SDM need to be configured for optimum SDM software performance on both RMS and blade hardware.
		Still under Power Management Options options
		Select HP Power Regulator option and press [ENTER].
		<i>Note:</i> A note may appear to say certain processors support only one power state. If this appears, press [ESC] to clear it.
		Change setting to <b>HP Static High Performance Mode</b> and press [ENTER].
8.	Save	Press <esc> two times</esc>
	Exit	Press [F10] to save the configuration and exit. The server will reboot
		ROM-Based Setup Utility, Version 3.08         Copyright 1982, 2018 Hewlett-Packard Development Company, L.P.         System Options         Power Management Options         PCI IRQ Settings         PCI Dev         Standar (F10) to Confirm Exit Utility         Rower Management Confirm Exit Utility         Rower Mailability         Server Availability         Server Availability         Server Security         BIDS Serial Console & EMS         Current Boot Controller         PCI Embedded         PCI Embedded         HP Snart Array P410i Controller         Perss < IAB> for More Information



Appendix D.2: BIOS Settings for HP Blade and Rack Mount Servers

**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.3 HP Rack Mount Firmware Upgrade

This procedure will upgrade the rack mount server firmware

### Needed material:

- HP Firmware Maintenance CD/DVD
- HP Solutions Firmware Upgrade Pack Release Notes [5]

Check off ( $\sqrt{}$ ) each step as it is completed. Boxes have been provided for this purpose under each step number.

IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT (MOS) AND ASK FOR ASSISTANCE.

Appendix D.3: HP Rack Mount Firmware Upgrade

Step	Procedure	Result
1.	Access the HP server's console.	Connect to the HP server's console using one of the access methods described in Section 2.1.2.
2.	Mount the media containing the	Follow steps defined in
	Firmware software.	C.1 Mounting Physical Media on HP Servers
		or
		C.2 Mounting Virtual Media on HP Servers
		to mount the Firmware software.
3.	Initiate a reboot of the server.	# shutdown -r now
		Broadcast message from sathiya@sathiya-laptop (/dev/pts/1) at 11:28
		The system is going down for reboot NOW!
4.	Remote Console: Perform an unattended	The server will reboot into the <i>HP Smart Update Firmware</i> ISO and present the following boot prompt. Press [Enter] to select the Automatic Firmware Update procedure.
	upgrade	
		Automatic Firmware Update Version 9.00 Interactive Firmware Update Version 9.00
		28
		If no key is pressed in 30 seconds the system will automatically perform an Automatic Firmware Update.

Appendix D.3: HP	Rack Mount Firmware	Upgrade
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Step	Procedure	Result				
5.	Remote Console: System analysis	The firmware install will perform a system scan of the server in which it will identify all of the firmware components that are eligible for upgrade. This process may take up to 10 minutes and during that time the following screen is displayed on the console.				
		Integrated Lights-Out 2 Remote Console HP ProLiant Right mouse drag whenever necessary to align the If necessary, click in Remote Console image below				
		Refresh       Terminal Svcs       Ctrl-Alt-Del       Alt Lock       High Performance Mouse       Local Cursor Def         Analyzing the system for unattended installation.       This could take several minutes       This could take several minutes         Note: No progress indication is displayed during the system scan and analysis stage. In about 10				
		minutes the installation will automatically proceed to the next step.				
6.	Remote Console: Monitor installation	Once analysis is complete the installer will begin to upgrade the eligible firmware components. A progress indicator is display at this time as shown below.           Step 1 of 3:         Build Inventory of Available Updates.           Step 2 of 3:         Check System for Installed Items				
		Step 3 of 3: Install Updates Installing: HP SAS EXP Card ↓ Updates Remaining: 5 Estimated Time Remaining: 9 Minutes, 43 Seconds ↓ 1%				
		<b>Cancel</b> <b>Note</b> : If the iLO2 firmware is to be upgraded it will be upgraded last. At this point the iLO2 session will be terminated and you will lose the remote console, virtual media and Web GUI connections to the server. This is expected and will not impact the firmware upgrade process.				
7.	<b>Local</b> Workstation: Clean up	Once the firmware updates have been completed the server will automatically be rebooted. At this time you may close the remote console and the iLO2 Web GUI browser session.				

Appendix D.J. HP Rack Would Filliwale Opgia	Appe	endix l	D.3: HP	Rack	Mount	Firmware	Upgrad
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Step	Procedure	Result		
8.	Local Workstation: Verify server availability	Wait 3 to 5 minutes and verify the server has rebooted and is available by gaining access to the login prompt.		
9.	Management server iLO: Remove the firmware CD	Remove the HP Smart Update Firmware DVD from the removable media drive. Exit from the Integrated Remote Console.		
THIS PROCEDURE HAS BEEN COMPLETED				
### 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)

Step	Procedure	Result
1.	Access the HP server's console.	Connect to the HP server's console using one of the access methods described in Section 2.1.2.
2.	Enter command to show physical drives	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl all show config Execute For Low Capacity RMS Configuration only: # hpssacli ctrl all show config

Step	Procedure	Result
3.	View output from the above command	Verify that there are two slots: <b>Slot 2</b> should have eight unassigned physical drives, <b>Slot 1</b> should have one logical drive with two 900.1 GB physical drives and four unassigned physical drives.
		<b>NOTE</b> : 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 ). If you believe your system should come with an array, please contact MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.
		Smart Array P420 in Slot 2 (sn: PDKRH0ARH3X0CO) unassigned
		<pre>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) 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 GE, RAID 1, OK)</pre>
		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)
<b>4.</b>	Create first <b>Slot</b> 2 assigment	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl slot=2 create type=ld \ drives=1I:1:1,1I:1:2,1I:1:3,1I:1:4 raid=1+0 stripsize=256
		Execute For Low Capacity RMS Configuration only: # 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
		NOTE: This command returns no output.

Step	Procedure	Result
5.	Create second <b>Slot 2</b> assigment	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl slot=2 create type=ld \ drives=2I:1:5,2I:1:6,2I:1:7,2I:1:8 raid=1+0 stripsize=256
		Execute For Low Capacity RMS Configuration only:
		<pre># hpssacli ctrl slot=2 create type=ld \ drives=21.1.5 21.1.6 21.1.7 21.1.8 raid=1+0 stripsize=256</pre>
		arives-21.1.5,21.1.0,21.1.7,21.1.0 Tata-1.0 Scripsize-250
		NOTE: This command returns no output.
6.	Create <b>Slot 0</b> assigment	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl slot=0 create type=ld drives=allunassigned \ raid=1+0 stripsize=256
		Execute For Low Capacity RMS Configuration only: # hpssacli ctrl slot=0 create type=ld drives=allunassigned \ raid=1+0 stripsize=256
		NOTE: This command returns no output.
7.	Enter command to show physical drives	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl all show config
		Execute For Low Capacity RMS Configuration only:

Step	Procedure	Result
8.	View output from the above command	Verify output of the previous command. This should appear like the example output below. Verify that there are four logical drives total: three of the logical drives contain four physical drives, and one of the logical drives contains two physical drives.
		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 11:1:1 (port 11: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)

Step	Procedure	Result
9.	Check for existing physical volumes	<pre># pvs [root@hostname1380908951 ~]# pvs PV VG Fmt Attr PSize PFree /dev/sda2 vgroot lvm2 a 838.06g 827.06g NOTE: 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 Step 13 of this procedure.</pre>
10.	Create physical volume <b>sdb</b>	<pre># pvcreate /dev/sdb Physical volume "/dev/sdb" successfully created</pre>
11.	Create physical volume <b>sdc</b>	<pre># pvcreate /dev/sdc Physical volume "/dev/sdc" successfully created</pre>
12.	Create physical volume <b>sdd</b>	<pre># pvcreate /dev/sdd Physical volume "/dev/sdd" successfully created</pre>
13.	Create volume group <b>stripe_vg</b>	<pre>**Don't execute for Low Capacity RMS Configuration # vgcreate stripe_vg /dev/sdb /dev/sdc /dev/sdd Volume group "stripe_vg" successfully created</pre>
14.	Create logical volume <b>rundb</b>	<pre>**Don't execute for Low Capacity RMS Configuration # lvcreate -i 3 -I 256 -L 385Galloc anywhere \name rundb stripe_vg Rounding size (179200 extents) up to stripe boundary size (179202 extents) Logical volume "rundb" created</pre>

Step	Procedure	Result
15.	Make filesystem on <b>rundb</b>	**Don't execute for Low Capacity RMS Configuration
		<pre># mkfs -t ext4 /dev/stripe_vg/rundb</pre>
		mke2fs 1.41.12 (17-May-2010)
		Filesystem label=
		OS type: Linux
		Block size=4096 (log=2)
		Fragment size=4096 (log=2)
		Stride=64 blocks, Stripe width=192 blocks
		45883392 inodes, 183502848 blocks
		9175142 blocks (5.00%) reserved for the super user
		First data block=0
		Maximum filesystem blocks=4294967296
		5601 block groups
		32768 blocks per group, 32768 fragments per group
		8192 inodes per group
		Superblock backups stored on blocks:
		32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
		4096000, 7962624, 11239424, 20480000, 23887872, 71663616, 78675968,
		102400000
		Writing inode tables: done
		Creating journal (32768 blocks): done
		Writing superblocks and filesystem accounting information: done
		This filesystem will be automatically checked every 22 mounts or
		180 days, whichever comes first. Use tune2fs -c or -i to override.
		THIS PROCEDURE HAS BEEN COMPLETED

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

# Configuring Blade Disk Array (NO Network Element Servers with Sidecar)

Appendix E.2: Configuring Blade Disk Array on NO Network Element Servers with Side	car
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Step	Procedure	Result
1.	Access the HP server's console.	Connect to the HP server's console using one of the access methods described in Section 2.1.2.
2.	Enter command to show physical drives	Execute For Normal Capacity Blade Configuration only: # hpacucli ctrl all show config Execute For Low Capacity Blade Configuration only: # hpssacli ctrl all show config

E.2

Step	Procedure	Result
3.	View output from the above command	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.
		<b>NOTE</b> : 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 ). If you believe your system should come with an array, please contact MY ORACLE SUPPORT (MOS) FOR ASSISTANCE.
		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 11:1:3 (port 11:box 1:bay 3, SAS, 146 GB, OK)
		physicaldrive 11:1:4 (port 11:box 1:bay 4, SAS, 146 GB, OK)
		physicaldrive 11:1:6 (port 11:box 1:bay 6, SAS, 146 GB, OK)
		physicaldrive 11:1:7 (port 11:box 1:bay 7, SAS, 146 GB, OK)
		physicaldrive 11:1:8 (port 11: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: 11, Box: 1)
4.	Create <b>Slot 3</b> assigment	Execute For Normal Capacity Blade Configuration only: # hpacucli ctrl slot=3 create type=ld \ drives=allunassigned raid=1+0 stripsize=256
		Execute For Low Capacity Blade Configuration only: # hpssacli ctrl slot=3 create type=ld \
		drives=allunassigned raid=1+0 stripsize=256
		NOTE: This command returns no output.

|--|

Step	Procedure	Result
5.	Enter command to show physical drives	Execute For Normal Capacity Blade Configuration only: # hpacucli ctrl all show config
		Execute For Low Capacity Blade Configuration only: # hpssacli ctrl all show config
6.	View output from the above command	Verify output of the previous command. This should appear like the example output below. Verify that there are four logical drives total: three of the logical drives contain four physical drives, and one of the logical drives contains two physical drives.
		Smart Array P220i in <b>Slot 0</b> (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 <b>Slot 3</b> (sn: 5001438025905EB0)
		array A (SAS, Unused Space: 0 MB) logicaldrive 1 (820.2 GB, RAID 1+0, OK)
		<pre>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:1:9 (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) physicaldrive 1I:1:12 (port 1I:box 1:bay 12, SAS, 146 GB, OK)</pre>
7.	Check for existing physical volumes	<pre># pvs [root@hostname1380908951 ~]# pvs PV VG Fmt Attr PSize PFree /dev/sda2 vgroot lvm2 a 838.06g 827.06g</pre>
		<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.

#### Appendix E.2: Configuring Blade Disk Array on NO Network Element Servers with Sidecar

Step	Procedure	Result
8.	Create physical volume <b>sdb</b>	<pre># pvcreate /dev/sdb Physical volume "/dev/sdb" successfully created</pre>
9.	Create volume group <b>stripe_vg</b>	<pre>**Don't execute for Low Capacity C-Class Configuration # vgcreate stripe_vg /dev/sdb Volume group "stripe vg" successfully created</pre>
10.	Create logical	**Don't execute for Low Capacity C-ClassConfiguration
		<pre># lvcreate -L 385Galloc anywherename rundb stripe_vg</pre>
		Rounding size (98560 extents) up to stripe boundary size (98562 extents) Logical volume "rundb" created
11.	Make filesystem on <b>rundb</b>	**Don't execute for Low Capacity C-ClassConfiguration
		<pre># mkfs -t ext4 /dev/stripe_vg/rundb</pre>
		mke2fs 1.43-WIP (20-Jun-2013)
		Filesystem label=
		OS type: Linux
		Fragment size=4096 (log=2)
		Stride=0 blocks, Stripe width=0 blocks
		25231360 inodes, 100925440 blocks
		5046272 blocks (5.00%) reserved for the super user
		First data block=U Maximum filesystem blocks=4294967296
		3080 block groups
		32768 blocks per group, 32768 fragments per group
		8192 inodes per group
		Superblock backups stored on blocks: 32768. 98304. 163840. 229376. 294912. 819200. 884736. 1605632. 2654208.
		4096000, 7962624, 11239424, 20480000, 23887872, 71663616, 78675968
		Allocating group tables: done
		Writing inode tables: done
		Creating journal (32768 blocks): done
		writing superbrocks and rifesystem accounting information; done
		This filesystem will be automatically checked every 22 mounts or
		180 days, whichever comes first. Use tune2fs -c or -i to override.
		THIS PROCEDURE HAS BEEN COMPLETED

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# 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

Appe	ndix F.1:	Installir	ng Operating	Systems	with ILO

Step	Procedure	Result				
1.	Access the HP server's console.	Connect to the HP server's console using one of the access methods described in Section 2.1.2.				
2.	Verify server hardware is Prioliant <b>DL</b>	<pre># hardwareInfo   grep Hardware Hardware ID: ProLiantDL380Gen8 or ProLiantDL380Gen8+</pre>				
3.	Mount the media containing the	Follow steps defined in				
	IPD software.	Appendix C.1 Mounting Physical Media on HP Servers				
		or				
		Appendix C.2 Mounting Virtual Media on HP Servers				
		to mount the OS software.				
4.	Initiate a reboot of the server.	# reboot				
		Broadcast message from sathiya@sathiya-laptop (/dev/pts/1) at 11:28				
		The system is going down for reboot NOW!				

Appendix F.1:	Installing	Operating	Systems	with IL	.0

Step	Procedure	Result			
5.	Begin Platform Installation process	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 <i>Note: no space between the HPHW, comma, and force: HPHW, force</i>			
		TPDnoraid diskconfig=HPHW, force console=tty0			
		Welcome to Tekelec Platform Distribution!Release:6.7.0.0.0_84.8.0Arch:x86_64For 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 & rescue TPD provides the following kickstart profiles:			
	[ TPD   TPDnoraid   TPDblade   TPDcompact   HDD ] Commonly used options are:				
		<pre>[ console=<console_option>[,<console_option>] ] [ primaryConsole=<console_option> ] [ rdate=<server_ip> ] [ scrub ] [ reserved=<size1>[,<sizen>] ] [ diskconfig=HWRAID[,force] ] [ drives=<device>[,device] ] [ guestArchive ]</device></sizen></size1></server_ip></console_option></console_option></console_option></pre>			
		To install using a monitor and a local keyboard, add console=tty0			
		boot: TPDnoraid diskconfig=HPHW,force console=tty0_			

Appendix F.1:	Installing	<b>Operating S</b>	Systems w	ith ILO
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Step	Procedure	Result						
6.	Platform installation Complete	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 below.						
		<b>Remove the USB drive or unmount the ISO image from the iLO</b> and press <b>Enter</b> to reboot the server. Note that the CD may eject automatically.						
		CentOS-4 1386 Released via the GPL Congratulations, your CentOS-4 i386 installation is complete. Remove any installation media (diskettes or CD-ROMs) used during the installation process and press (Enter> to reboot your system.						
7.	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. <b>NOTE:</b> If no login prompt is displayed after waiting 15 minutes, contact My Oracle Support (MOS) for assistance.						
8.	Verify that the TPD release is <b>6.7.x</b> .	<pre># getPlatRev 6.7.0.0.1-84.17.0</pre>						
9.	Execute "alarmMgr" command to verify health of the server before Application install.	<pre># alarmMgralarmStatus NOTE: This command should return no output on a healthy system. If any alarms are reported as SNMP traps, please contact My Oracle Support (MOS) for assistance.</pre>						
10.	Execute "verifyIPM" as a secondary way to verify health of the server before Application install.	# verifyIPM NOTE: This command should return no output on a healthy system. If any errors are reported, please contact My Oracle Support (MOS) for assistance.						

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

Step	Procedure	Result
		THIS PROCEDURE HAS BEEN COMPLETED

#### F.2 Installing Operating Systems with PM&C

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

Step	Procedure	Result									
1.	PM&C GUI:	Open web browser and enter: htt	p:// <pmac_m< th=""><th>anagement_</th><th>_network_ip&gt;</th><th></th></pmac_m<>	anagement_	_network_ip>						
	Login to PM&C GUI	Login as pmacadmin user.									
		Tester System Login         Test Part 10: 15: 12: 20:13 EDF <b>Login Change password to log in Destroin Change password to log in Destroin Destroin Change password to log in Destroin </b>									
2.	PM&C GUI: Select Main Menu	Main Menu	Main Menu								
	→ Software	Hardware System Inventory									
	→ Software	System Configuration									
	Inventory	💼 🚔 Software	IP Address	Hostname	Plat Name						
		Software Inventory	Enc: <u>701</u> Bay: <u>1F</u>	192.168.1.8	hostname1381431478	3 TPD (x86_64) ? TPD (x86_64)					
	as shown on	VM Management	Enc:701 Bay:2F	192.168.1.9	hostname1381431132						
	the right.	192.168.1.6	9080701b3-TVOE	TPD (x86_64)							
		Administration	9080701b3-MP-1	TPD (x86_64)							
		Task Monitoring	Enc: <u>701</u> Bay: <u>3F</u> Guest: <u>SO-A</u>	192.168.1.181	9080701b3-SO-A	TPD (x86_64)					
		- A Help	Enc: <u>701</u> Bay: <u>4F</u>	192.168.1.7	9080701b4-TVOE	TPD (x86_64)					
			Enc:701 Bay:4F	102 160 1 102	0090701b4 MP 2	TPD (v96 64)					

Appendix F.2:	Installing	Operating	Systems	with PM&C
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Step	Procedure		Result						
3.	PM&C GUI:	Software Inventory							
	<ol> <li>Highlight the desired servers</li> </ol>	Filter -							
	based on its	Ident	IP Address	Hostname	Plat Name	Plat Version	Арр		
	ldentity	Enc: <u>11901</u> Bay: <u>1F</u>	192.168.1.132	hostname2486a3ab0f86	TPD (x86_64)	6.7.0.0.0-84.8.0		1	
	2	Enc: <u>11901</u> Bay: <u>3F</u>	192.168.1.131	hostname4ac7d19a2576	TPD (x86_64)	6.7.0.0.0-84.8.0		•	
	Note: You may	Enc: <u>11901</u> Bay: <u>5F</u>	192.168.1.133	BL119111305-TVOE	TPD (x86_64)	6.7.0-84.7.0	TVO		
	select multiple	Enc: <u>11901</u> Bay: <u>5F</u> Guest: <u>UDR S2 MP1</u>							
	simulataneous upgrade to the same release by	Enc: <u>11901</u> Bay: <u>5F</u> Guest: <u>UDR_S2_MP2</u>							
		Enc: <u>11901</u> Bay: <u>5F</u> Guest: <u>UDR_SO_2A</u>							
	(Control) key	Enc: <u>11901</u> Bay: <u>6F</u>	192.168.1.130	BL119111306-TVOE	TPD (x86_64)	6.7.0-84.7.0	TVO		
	while selecting lines with the	Enc: <u>11901</u> Bay: <u>6F</u> Guest: <u>UDR_S2_MP3</u>							
	mouse.								
	2) Click on the Install button.								
Install OS         Upgrade         Accept Upgrade         Reject Upgrade           Regenerate Guest Device Mapping ISO         Refresh								<b>)</b> -	

Appendix F.2:	Installing	<b>Operating S</b>	Systems with	PM&C
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Step	Procedure	Result
4.	PM&C GUI: 1) Select the desired Image Name of the OS software.	Software Upgrade - Select Image Thu Oct 10 15:39:57 2013 EDT Thu Oct 10 15:39:57 2013 EDT Targets Entity Status Enc:701 Bay:1E
	2) Click on the Start Install button.	You have selected to install a bootable OS iso on the selected targets.
	3) Click on the popup dialog box OK button.	The following targets already have an Application: Enc:11901 Bay:6F ==> TVOE Enc:11902 Bay:6F ==> TVOE Enc:11902 Bay:6F ==> TVOE Are you sure you want to install TVOE-2.7.0.0.0_84.8.0-x86_64 on the listed entities?
5.	PM&C GUI:	Software Upgrade - Select Image
	Upgrade Tasks will appear for each upgrade started this way under the left column <b>Status</b> .	Status         Image Name           Entity         Status           Enc: 701 Bay: 1F         Task 116           872-2553-101-10.0           <





### Appendix G. Installing OCUDR Application

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

## G.1 Installing OCUDR Application with ILO

#### Appendix G.1: Install OCUDR Application with ILO

Step	Procedure	Result
1.	Access the HP server's console.	Connect to the HP server's console using one of the access methods described in Section 2.1.2.
2.	Mount the media containing the OCUDR <b>software</b> .	Follow steps defined in C.1 Mounting Physical Media on HP Servers
		or
		C.2 Mounting Virtual Media on HP Servers
		to mount the OCUDR software.
3.	Login to the " <b>platcfg"</b> utility.	[root@hostname1260476221 ~]# <b>su - platcfg</b>
4.	From the <b>"platcfg"</b> Main Menu Select each option as shown on the right, pressing the <b><enter></enter></b> key after each selection.	Main Menu       Jpgrade         Maintenance       Halt Server         Diagnostics       Backup and Restore         Server Configuration       Restart Server         Remote Consoles       Restart Server         Network Configuration       Estart Server         Exit       1         Upgrade Menu       2         Validate Media       2         Non Tekelec RPM Management       3

Step	Procedure	Result
5.	From the " <b>platcfg</b> " Main Menu… Verify "CDROM is Valid."	root@pc9000724-no-a:~
	If CDROM is invalid, see <b>Appendix Q</b> to access My Oracle Support (MOS)	UMVT Validate Utility v2.2.2, (c)Tekelec, June 2012 Validating /var/TKLC/upgrade/872-2553-101-10.0.0_10.4.0-UDR-x86_64.iso Date&Time: 2014-01-31 14:44:21 Volume ID: tklc_872-2553-101_Rev_A_10.4.0 Part Number: 872-2553-101_Rev_A Version: 10.4.0 Disc Label: UDR Disc description: UDR The media validation is complete, the result is: PASS
	then press any key to return to platcfg menu.	CDROM is Valid PRESS ANY KEY TO RETURN TO THE PLATCFG MENU.
6.	From the <b>"platcfg"</b> Main Menu Select each option as shown on the right, pressing the <b><enter></enter></b> key after each selection.	Choose Upgrade Media Menu 872-2553-101-10.0.0_10.4.0-UDR-x86_64.iso - tklc_872- Exit Upgrade Menu Validate Media Early Upgrade Checks Initiate Upgrade Non Tekelec RPM Management Exit

Step	Procedure	Result
7.	Verify that the Application release level shown matches the target release.	Searching for upgrade media       1         Please wait       2         Choose Upgrade Media Menu       1
		<u>/dev/scd1</u> - tklc_872-2358-182_Rev_A_10.4.0 Exit
8.	Output similar to that shown on the right may be observed as the Application install progresses.	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

Appendix G.I. Install OCODA Application with ILO
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Step	Procedure	Result
9.	Output similar to that shown on the right may be observed as the Application install progresses.	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/ugwrapnoexecdispatch OK ] Initializing Upgrade Wrapper package TKLCappworks is not installed TKLCappworks is not installed, therefore this must be an initial install. Validating Distribution Validating cdrom ##################################
10.	Output similar to that shown on the right may be observed as the server initiates a post-install reboot.	<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-00000:00:1d.3-1 input: Intel(R) Multidevice as /class/input/input4 input: USB HID v1.01 Keyboard [Intel(R) Multidevice] on usb-00000:00:1d.3-1 Restarting system. machine restart</pre>
11.	After the server has completed reboot	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64 hostname1260476221 login: root Password: <root password=""></root>
	server as the " <b>root</b> " user.	
12.	Output similar to that shown on the right will appear as the server returns to a command prompt.	<pre>*** TRUNCATED OUTPUT *** </pre>
		[root@hostname1260476221 ~]#

Appendix G.1: Install OCUDR Application with
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Step	Procedure	Result
13.	Verify successful upgrade.	<pre># verifyUpgrade</pre>
	Command will generate no output if no issues are found.	<b>NOTE</b> : This command should return no output on a healthy system. If any errors are reported, please contact My Oracle Support (MOS) for assistance.
14	Verify that the	[root@hostname1260476221 ~]# <b>appRev</b>
	Application	Install Time: Fri Aug 8 08:39:26 2014
	shown matches	Product Name: OCUDR
	the target	Product Release: 10.0.1_10.11.2
	release.	Base Distro Product: TPD
		Base Distro ISO: TPD install-6 7 0 0 1 84 17 0-OracleLinux6 5-
		x86_64.iso
		OS: OracleLinux 6.5
15.	TVOE Management	Reboot the server:
	Server iLO:	# init 6
	Reboot the server	Wait until the reboot completes and re-login with TVOE root credentials.
16.	16 Verify server health:	
	Management Server iLO:	# alarmMgr -alarmStatus
	Verify server health	<i>Note</i> : This command should return only one alarm related to pending upgrade acceptance. If any other alarms are reported, please stop and contact My Oracle Support (MOS) before continuing.
THIS PROCEDURE HAS BEEN COMPLETED		

# G.2 Installing OCUDR Application with PM&C

### Appendix G.2: Installing OCUDR Application with PM&C

Step	Procedure	Result
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Step	Procedure	Result							
8.	PM&C GUI:	Open web browser and enter: http:// <pmac_management_network_ip></pmac_management_network_ip>	en web browser and enter: http:// <pmac_management_network_ip></pmac_management_network_ip>						
	Login to PM&C GUI	Login as pmacadmin user.	ogin as pmacadmin user.						
		Tekelec System Login       Tur May 14 10:15:12 2013 EDT         Enter your username and password to log in         Username:       macadmin         Password:       Change password to         Change password:       Change password         Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0, 8.0, or 9.0 with support for JavaScript and cookies.							
9.	PM&C GUI: Select	Tekelec Platform Management & Configuration 5.5.0-55.12.0							
	Main Menu → Software → Software Inventory as shown on the right.	Image Software       Image Software <thimage software<="" th="">       Image Software       Image</thimage>							

	Appendix G.2:	Installing	OCUDR	Application	with PM&C
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Step	Procedure				Result						
10	PM&C GUI:	Software Invento	ory							Help	
	1) Highlight the	Filter -						- Thu Oct 10 17:3	3:49 20	13 EDT	
	desired blade or blades based on	Ident	IP Address	Hostname	Plat Name	Plat Version	App Name	App Version	Desig	Funct	
	the Guest name	Enc: <u>701</u> Bay: <u>3F</u> Guest: <u>SO-A</u>	192.168.1.181	9080701b3-SO-A	TPD (x86_64)	6.5.0-82.22.0	UDR	10.0.0-10.0.0_10		Î.	1
	host <b>Identity</b>	Enc:701 Bay:4F	192.168.1.7	9080701b4-TVOE	TPD (x86_64)	6.5.0-82.22.0	TVOE	2.5.0_82.22.0			· ·
		Guest <u>MP-3</u>	192.168.1.183	9080701b4-MP-3	TPD (x86_64)	6.5.0-82.22.0	UDR	10.0.0-10.0.0_10		=	
	Note: You may	Guest <u>SO-B</u>	192.168.1.182	9080701b4-SO-B	TPD (x86_64)	6.5.0-82.22.0	UDR	10.0.0-10.0.0_10			
	blades for	Enc: <u>701</u> Bay: <u>5F</u> Enc: <u>701</u> Bay: <u>6F</u>	192.168.1.10 192.168.1.163	PCRF-6-MPE-1A PCRF-6-MPE-1B	TPD (x86_64) TPD (x86_64)	5.1.1-73.5.1 5.1.1-73.5.1	MPE	10.5.0_18.1.0 10.5.0_18.1.0			
	simulataneous	Host nmac_xrisdm701									
	same release by										
	holding the <b>Ctrl</b> (Control) kev										
	while selecting										
	lines with the mouse.										
		Insta	II OS	Upgrade	Accept Up	grade F	Reject Up	grade	0		
	<ol> <li>Click on the Upgrade button.</li> </ol>		Regenerate	Guest Device Mapp	oing ISO	Refr	esh		2		
	15										
11	PM&C GUI:	Software Upgrad	e - Select In	nage				5	۵.	Help	
	1) Select the							Thu Oct 10 15:39:	57 2013	EDT	
	desired Image Name of the	Targets		Image Name		Туре	Archi	itecture Descript	ion		
	OCUDR	Entity Enc:701 Bay:1F	Status	872-2525-101-2.5.0	_82.22.0-TVOE-) 0 10.1.0-UDR-x	86_64 Bootabl	e x86_6	64 64		*	1
	software.			•			• <u> </u> *•••_		Þ	*	•
										-	
				$\frown$							
	2) Click on the	Insta	II OS	Upgrade	Accept Up	ograde F	Reject Up	grade	2		
	Upgrade button.		Regenerate	Guest Device Mapp	oing ISO	Refi	esh		~		
										1	
	<b>3)</b> Click on the	Are vou sure vou	want to upgra	de to 872-2553-101	-10.0.0 10.	1.0-UDR-x86	64 on th	e listed entitie	es?		
		,,					_			p	2
	<b>OK</b> button.									20	S
							ОК	Cancel		p	
11.	<ul> <li>PM&amp;C GUI:</li> <li>1) Select the desired Image Name of the OCUDR software.</li> <li>2) Click on the Upgrade button.</li> <li>3) Click on the popup dialog box OK button.</li> </ul>	Software Upgrad	e - Select Im Status	age	_82.22.0-TVOE- 0_10.1.0-UDR-x Accept Up Ding ISO	Type 1.0-UDR-x86	Archi e x86_i e x86_i Reject Up esh _64 on th	rhu Oct 10 15:39: tecture Descript 34 94 97 9 e listed entitie Cancel	ی 57 2013 ion , 2 ess?	Help EDT	1



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

This procedure will accept the OCUDR Application Installation / Upgrade with PM&C.

Step	Procedure		Result					
1.	PM&C GUI:	Open web browser and enter: htt	en web browser and enter: http:// <pmac_management_network_ip></pmac_management_network_ip>					
	Login to PM&C GUI	Login as pmacadmin user.	gin as pmacadmin user.					
		Tekelec System Login	telec System Login					
		Log In Enter your username and pas Username: pmacad Password: •••••• Change Log In	ssword to log in	orer 7.0, 8.0,				
		Tekelec and logo are registered service Copyright © 2012 <u>Tekelec, Inc</u> , All I	marks of Tekelec, Inc. Rights Reserved.					
2.	PM&C GUI: Select	Tekelec Platform Mar 5.5.0-55.12.0	nagement & Config	guration				
	<u>Main Menu</u> → Software → Software	<ul> <li>Main Menu</li> <li>Hardware</li> <li>System Inventory</li> <li>System Configuration</li> </ul>	Software Inver	ntory				
	Inventory	a Software	Ident		Hostname	Plat Name		
	····· <b>·</b>	- Software Inventory	Enc:701 Bay:1E	192 168 1 8	hostname1381431478	TPD (x86_64)		
	as shown on	🛄 📑 Manage Software Images	Enc:701 Bay:2F	192.168.1.9	hostname1381431132	TPD (x86 64)		
	the right	VM Management	Enc:701 Bay:3F	192.168.1.6	9080701b3-TVOE	TPD (x86_64)		
	and right.	Administration	Enc: <u>701</u> Bay: <u>3F</u> Guest: <u>MP-1</u>	192.168.1.184	9080701b3-MP-1	TPD (x86_64)		
		Task Monitoring	Enc: <u>701</u> Bay: <u>3F</u> Guest: <u>SO-A</u>	192.168.1.181	9080701b3-SO-A	TPD (x86_64)		
		Help	Enc: <u>701</u> Bay: <u>4F</u>	192.168.1.7	9080701b4-TVOE	TPD (x86_64)		
		···· 🔁 Logout	Enc:701 Bay:4F	102 169 1 193	0000701b4 MP 2			

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

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

Step	Procedure				Result						
3.	PM&C GUI:	Software Invento	ry					- Thu Oct 10 17:3	3:49 20	Help	
	1) Highlight the	Filter -									
	desired blade or	ldent	IP Address	Hostname	Plat Name	Plat Version	App Name	App Version	Desig	Funct	
	its enclosure and	Enc: <u>701</u> Bay: <u>3F</u> Guest: <u>SO-A</u>	192.168.1.181	9080701b3-SO-A	TPD (x86_64)	6.5.0-82.22.0	UDR	10.0.0-10.0.0_10		^	1
	Day identity	Enc: <u>701</u> Bay: <u>4F</u>	192.168.1.7	9080701b4-TVOE	TPD (x86_64)	6.5.0-82.22.0	TVOE	2.5.0_82.22.0			
		Enc: <u>701</u> Bay: <u>4F</u> Guest: <u>MP-3</u>	192.168.1.183	9080701b4-MP-3	TPD (x86_64)	6.5.0-82.22.0	UDR	10.0.0-10.0.0_10			
	<b>Note:</b> You may select multiple	Enc: <u>701</u> Bay: <u>4F</u> Guest <u>SO-B</u>	192.168.1.182	9080701b4-SO-B	TPD (x86_64)	6.5.0-82.22.0	UDR	10.0.0-10.0.0_10		=	
	blades for	Enc: <u>701</u> Bay: <u>5F</u>	192.168.1.10	PCRF-6-MPE-1A	TPD (x86_64)	5.1.1-73.5.1	MPE	10.5.0_18.1.0			
	simulataneous	Enc:701 Bay:6F	192.168.1.163	PCRF-6-MPE-1B	TPD (x86_64)	5.1.1-73.5.1	MPE	10.5.0_18.1.0		-	
	upyraue to the	Host nmac_xrisdm/01								P	
	<i>mouse.</i> 2) Click on the Accept Upgrade button.	Install (	DS Regenerate (	Upgrade Guest Device	Accept U Mapping ISO	pgrade	Reject ( Refresh	Jpgrade	2		
	<b>3)</b> An Information message will be raised to indicate	Software Inv	entory			Ø					
	acceptance has	Ident				<u>ی</u>	t Name				
	begun.	Enc:701 Bay:	Starti     Task	ng accept upgr ID: 129	ade on Enc: 701	Bay: 1F	) (x86_64	.)			
		Enc:701 Bay:	Starti	ng accept upgr	ade on Enc: 701	Bav: 2F	D (x86 64	L)			
		Enc:701 Bay:	Task	Task ID: 127 0 (x86_			) (x86_64	-)			
		Enc: <u>701</u> Bay: <u>3F</u> Guest: <u>MP-1</u>	192.1	168.1.184	hostname13814	42207 TF	PD (x86_64	·)			



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

# Appendix I. PM&C Deployment and Configuration

This procedure contains steps to deploy and configure  $\ensuremath{\mathsf{PM\&C}}$  on TVOE Servers.

# I.1 Deploying PM&C on TVOE Server

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

Step	Procedure	Result
1.	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>Section 0</b> .
2.	TVOE Server (SSH): Login as	1. login as: admusr password: <admusr_password></admusr_password>
	" <b>admusr</b> " user.	
3.	TVOE Server (SSH):	<pre>\$ su - password: <root_password></root_password></pre>
	Switch to " <b>root</b> " user.	
4.	TVOE Server (SSH):	Follow steps defined in
	Mount the media containing the	C.1 Mounting Physical Media on HP Servers
	PM&C software.	or
		C.2 Mounting Virtual Media on HP Servers
		to mount the PM&C software.
5.	TVOE Server (SSH):	Using the device location identified in C.1 or C.2, mount the PM&C ISO with this command:
	Mount PM&C media location	<pre># mount -o loop <media_device> /mnt</media_device></pre>

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

Step	Procedure	Result
6.	TVOE Management Server (SSH):	Using the pmac-deploy script, deploy the PM&C # cd /mnt/upgrade
	Doplay BMRC	Deploy PM&C by running the following command (on one line, <b>without line breaks</b> ):
	<b>Дерюу Рикс</b>	Command Syntax:
		# ./pmac-deploy controlIP=192.168.1.1
		managementBridge=management
		guest= <pmac_name></pmac_name>
		hostname= <pmac_hostname></pmac_hostname>
		managementIP= <pmac_management_1p_address></pmac_management_1p_address>
		routeGW= <pmac_management_dateway_address></pmac_management_dateway_address>
		ntpserver= <tvoe_management_server_ip_address></tvoe_management_server_ip_address>
		Example:
		# ./pmac-deploycontrolIP=192.168.1.1
		managementBridge=management
		guest=pmachostname=pc9000712-pmac
		managementIP=10.240.37.149managementNM=255.255.255.192 routeGW=10.240.37.129ntpserver=10.240.37.147
		The PM&C will deploy and boot.
		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.
		<i>Note:</i> Some lab deployments may host TVOE and PMAC on the XMI network/bridge instead of on a separate routable management network.
7.	TVOE Management	Unmout the DVD media using the following command:
	Server (SSH):	# cd /
	Unmount the media	<pre># umount /mnt</pre>

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

Step	Procedure	Result
8.	TVOE Server (SSH):	Login using virsh, and wait until you see the login prompt:
		# virsh
	Log into the	Welcome to virsh, the virtualization interactive terminal.
	virtual PM&C server	Type: 'help' for help with commands 'quit' to quit
		wirsh # list
		Id Name State
		2 pmac running
		Log into the virtual PM&C server using PM&C root credentials.
		virsh # console pmac
		Connected to domain pmac
		Escape character is ^]
		<enter></enter>
		CentOS release 6.2 (Final)
		Kernel 2.6.32-220.17.1.el6prerel6.0.0_80.17.0.x86_64 on an x86_64
		PMAC-pc9000632 login: root
		Password: <password></password>
		Last login: Wed Aug 15 20:34:49 from 10.250.51.71
		[root@PMAC-pc9000632 ~]#
9.	Virtual PM&C:	Verify the PM&C configured correctly on first boot.
	Verify the PM&C	<pre># ls /usr/TKLC/plat/etc/deployment.d/</pre>
	is configured correctly on the	<b>NOTE</b> . This command should return no output on a healthy system. Otherwise please contact My
	first boot	Oracle Support (MOS) for assistance.
10.	Virtual PM&C:	Determine the Time Zone to be used for the PM&C, and set the PM&C timezone
	Set Timezone	<i>Note:</i> Valid time zones can be found in Appendix P.
		<pre># set_pmac_tz.pl <timezone></timezone></pre>
		<u>Example:</u>
		<pre># set_pmac_tz.pl America/New_York</pre>

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

Step	Procedure	Result					
11.	Virtual PM&C:	Configure SNMP trap destination by running the following:					
	Configure SNMP	# su - platcfg					
		1. Navigate to Network Configuration > SNMP Configuration > NMS Configuration.					
		SNMP Configuration Menu NMS Configuration Exit					
		<ol> <li>Select Edit and then choose 'Add a New NMS Server'.</li> <li>The 'Add an NMS Server' page will be displayed</li> </ol>					
		<ul> <li>Add an NMS Server</li> <li>Hostname or IP: 10.250.54.215</li> <li>Port: 162</li> <li>SNMP Community String: TKLC</li> <li>OK Cancel</li> <li>OK Cancel</li> <li>OK Cancel</li> <li>Select OK to finalize the configuration.</li> <li>Select Exit. The following dialogue will then be presented: 'Do you want to restart the Alarm</li> </ul>					
		Routing Service?'					
		<ul><li>8. Select Yes and then wait a few seconds while the Alarm Routing Service is restarted.</li><li>9. At that time the 'SNMP Configuration Menu' will be presented.</li></ul>					
		10. Exit platefg.					
		<i>Note</i> : All alarm information will then be sent to the NMS located at the destination.					
12.	Virtual PM&C:	Reboot the PM&C server to ensure all processes are started with the new Time Zone:					
	Reboot PM&C server	# init 6					
	THIS PROCEDURE HAS BEEN COMPLETED						

# I.2 Configure PM&C Application

Step	Procedure	Result					
1.	PM&C GUI:	Open web browser and enter: <a href="http://spmac_management_network_ip">http://spmac_management_network_ip</a>					
	Login to PM&C GUI	Login as pmacadmin user.					
		Log In         Enter your username and password to log in         Username:         Password:         Change password         Username:         Password:         Change password         Image: Change password         Description         Description					

Step	Procedure	Result							
2.	PM&C GUI: Select a profile	The first time that the PM&C GUI is opened, an initialization screen appears and will look similar to the screen shown below:							
		Profiles							
		File Name Comment							
		TVOE	PM&C TVOE Guest	Manage systems from a TVOE host	ed PM&C	6.0.0			
Initialize Select the TVOE profile and click on "Initialize" button, then following screen will displ									
		Cancel Next							
		Feature Description Role Enabled							
	DEVICE.NETWORK.NETBOOT Network device PXE initialization management								
DEVICE.NTP PM&C as a time server management									
		PMAC.MANAGED	Remote manage PM&C s	ement of erver	management				
		PMAC.REMOTE.BACKUP Remote server for backup management							
		PMAC.NETBACKUP	NetBack	kup client	management				
		Add Role							
		<b>Note:</b> If you have missed the initialization process, please navigate to this GUI page: Administration $\rightarrow PM\&C$ Configuration $\rightarrow$ Feature Configuration							
		<ul><li>Make sure that the enable checkbox is checked for the following features only:</li><li>1. DEVICE.NTP</li><li>2. PMAC,REMOTE.BACKUP</li></ul>							
		Click on "Next" button							
		<b>Note:</b> If you have missed the initialization process, you will need to click on "Apply" button, then navigate to this GUI page Administration $\rightarrow PM\&C$ Configuration $\rightarrow Network$ Configuration and click on the "ReConfigure" button.							

#### Appendix I.2: Configure PM&C Application

#### Procedure Result Step PM&C GUI: You will see this default screen similar to: 3. Network Network IP Network Mask Description 192.168.1.0 255.255.255.0 10.250.51.0 255.255.255.0 Add Delete Enter the Network IPs and Netmasks for the control and Management Networks. Click on "Next" button. PM&C GUI: You will see this default screen similar to: 4. Network Roles Network IP Network Mask Role 192.168.1.0 255.255.255.0 control 10.250.51.0 255.255.255.0 management Add Delete Verify the roles and update if necessary. Click on "Next" button. PM&C GUI: You will see this default screen similar to: 5. Network IP Address Device Description Interface Control network control 192.168.1.1 for managed servers Management of management 10.250.51.89 system devices Add Delete Verify the IP addresses for each Device and update if necessary. Click on "Next" button. PM&C GUI: You will see this default screen similar to: 6. Network Route Device Destination IP Network Mask Gateway IP Add Delete No routes are required. Click on "Next" button when done.

#### Appendix I.2: Configure PM&C Application

	Appendix I.2:	Configure	PM&C	Application
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Step	Procedure	Result							
7.     PM&C GUI:     You will see this default screen similar to:       DHCP Banges     DHCP Banges									
	gee	DHCP Ra							
		Start DHCP	Start DHCP End DHCP						
		192.168.1.1							
			Add Delete						
		Set the Starting address in range to 192.168.1.5 and the Ending address in range to 192.1 DHCP Ranges							
		Start DHCP							
192.168.1.5				192.168.1.25	4				
				Add [	Delete				
		Click on "Next"	button when dor	ne.					
8.	PM&C GUI:	The following summary screen will be displayed.							
	Summary								
Settings							-		
			Network IP		255.255.255.0				
		10.250.51.0 255.255.255.0							
		✓ Network and Roles Description							
		Network IP Network Mask Role							
		192.16	3.1.0 255.255.255.0 control						
		10.250	.51.0	255.255.255.0 management					
		✓ Network Interface I	Description						
Device IP Address Description					escription				
		managemen	t 1	10.250.51.79		Management of system devices			
		92.168.1.1	Co	ontrol network for managed ser	vers				
			n						
		Device	Destination IP	Netwo	ork Mask	Gateway IP			
			isioned routes f	found.					
▼ DHCP Configuration									
		Si	art DHCP		End DHCP				
		19	92.168.1.5		192.168.1.25	54			
		Verify the value	s, and click <b>"Fin</b> i	Cancel	Finish				

Appendix I.2:	Configure	PM&C	Application
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Step	Procedure	Result							
9.	PM&C GUI:	The following summary screen will be displayed, click on Tasks to view the Initialization Progress							
	Complete the configuration	Interfolds will g statistically served will be displayed, ence on Fasks to view the initialization frogress         Infort Tasks *         Tasks *         Initialize PM&C         Initializing PM&C server         2012.08-16         33%         1         Initializing PM&C server         2012.08-16         33%         Initializing PM&C server         2012.08-16         33%         Initializing PM&C server         Initializing PM         Initializing PM         Initializing PM							
		ID Task	Target	Status	Running Time	Start Time	Progress		
		Wait till the Progress bar turns green, that signifies that the PM&C Initialization was successful.							
10.	PM&C GUI: Set the PM&C Application GUI Site Settings	<ul> <li>Navigate to GUI page: Main Menu → Administration → GUI Site Settings</li> <li>Set the "Site name" field to a descriptive name</li> <li>Set the "Welcome Message" field that is displayed upon login.</li> </ul>							
		Verify values, and click "Update Settings" button when done							
11.	Virtual PM&C SSH: Perform PM&C application backup and save backup file	<pre>Perform PM&amp;C application backup by executing this command: # pmacadm backup The command output will be similar to this: # PM&amp;C backup been successfully initiated as task ID 7 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 " pmaccli getBgTasks ". The result should eventually be "PM&amp;C Backup successful" and the background task should indicate "COMPLETE". Note: The "pmacadm backup" 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.</pre>							
	The PM&C backup must be moved to a remote server. Transfer (sftp, scp, rsync, or preferred utility) the PM&C backup file to an appropriate remote server.						erred		
#### Appendix I.2: Configure PM&C Application

Step	Procedure	Result
		THIS PROCEDURE HAS BEEN COMPLETED

#### 1.3 Add Cabinet to PM&C System Inventory

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

Step	Procedure	Result
1	PM&C GUI:	Open web browser and enter: http:// <pmac_management_network_ip></pmac_management_network_ip>
	Login to PM&C GUI	Login as pmacadmin user.
		Tekelec System Login         Tur May 14 10: 15: 12 2013 EDT <b>Log In Lograme:</b> macadmin <b>Password: Log in: Databolistication: Change password: Log in: Databolistication: Change password: Log in: Databolistication: Change password: Databolistication: Databolistication:</b>
2.	PM&C GUI: Configure Cabinets	Navigate to this GUI page: Main Menu → Hardware → System Configuration → Configure Cabinets. Main Menu Main Menu System Inventory System Configuration Configure Cabinets Configure Enclosures Configure RMS Software

Step	Procedure	Result
3.	PM&C GUI: Navigate to Configure Cabinet	On the Configure Cabinets panel click on "Add Cabinet" button          Provisioned Cabinets         There are no provisioned         cabinets         Add Cabinet         Delete Cabinet
4.	PM&C GUI: Enter Cabinet ID	Enter the value for CabinetID and press Add Cabinet. Add Cabinet Cabinet ID: Cabinet ID must be from 1 to 654.
5.	PM&C GUI: Check Errors	If no error is reported to the user you will see the following: Configure Cabinets Thu Aug 16 11:43:51 2012 EDT Provisioned Cabinets 1 Add Cabinet Delete Cabinet Or you will see an error message: Add Cabinet Cabinet ID 900 is invalid: must be between 1 and 654
		THIS PROCEDURE HAS BEEN COMPLETED

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

#### 1.4 Add Rack Mount Server to PM&C System Inventory

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

Step	Procedure	Result	
1.	PM&C GUI:	Open web browser and enter: http:// <pmac_management_network_ip></pmac_management_network_ip>	
	Login to PM&C GUI	Login as pmacadmin user.	
		Tekelec System Login	
		Log In Enter your username and password to log in Username: pmacadmin Password: •••••• Change password Log In	
		Unauthorized access is prohibited. This Tekelec system requires the use of Microsoft Internet Explorer 7.0, 8.0, or 9.0 with support for JavaScript and cookies. Tekelec and logo are registered service marks of Tekelec, Inc. Copyright © 2012 <u>Tekelec, Inc.</u> All Rights Reserved.	
2.	PM&C GUI:	Navigate to this GUI page: Main Menu → Hardware → System Configuration → Configure RMS	
		<ul> <li>Main Menu</li> <li>Hardware</li> <li>System Inventory</li> <li>System Configuration</li> <li>Configure Cabinets</li> <li>Configure Enclosures</li> <li>Configure RMS</li> <li>Software</li> </ul>	
3.	PM&C GUI:	On the Configure Cabinets panel click on Add RMS	
	Add RMS	Configure RMS Thu Aug 16 11:47:12 2012 EDT RMS IP RMS Name There are no provisioned RMS Add RMS Edit RMS Delete RMS Find RMS Found RMS	

Step	Procedure	Result	
4.	PM&C GUI: Enter RMS Information	Enter the management port (iLO) IP Address of the rack mount server (this is the TVOE server upon which the current PM&C is hosted). Enter the User and Password login credentials for the ILO. Then press Add RMS.	
		Add RMS         IP:         Name:         Cabinet ID:         User:         Password:         Add RMS    Note: The PM&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.	
5.	PM&C GUI:	If no error is reported to the user you will see the following:	
	Check Errors	Configure RMS Info  Info Info RMS 10.250.35.28 was added to the system. Pc90000632 Add RMS Edit RMS Delete RMS Find RMS Found RMS	
	THIS PROCEDURE HAS BEEN COMPLETED		

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

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

This procedure contains steps to add software images to PM&C, including TPD, TVOE, and OCUDR application images.

Step	Procedure	Result
1.	Load TPD ISO image to PM&C server	<ul> <li>Use sftp to transfer the iso image to the PM&amp;C server in the /var/TKLC/smac/image/isoimages/home/smacftpusr/ directory as pmacftpusr user:</li> <li>Change to the directory where your TPD, TVOE, or OCUDR ISO images are located</li> <li>Using sftp, connect to the PM&amp;C management server # sftp pmacftpusr@<pmac_management_network_ip> # put <image/>.iso</pmac_management_network_ip></li> <li>After the image transfer is 100% complete, close the connection</li> </ul>
		# quit
<b>2</b> .	PM&C GUI: Login to PM&C GUI	Open web browser and enter: http:// <pmac_management_network_ip> Login as pmacadmin user.</pmac_management_network_ip>
		Tekelec System Login         Image: Comparison of the compariso
3.	<b>PM&amp;C GUI:</b> Navigate to Manage Software Images	Navigate to this GUI page: Main Menu → Software → Manage Software Images Main Menu Hardware Software Software Manage Inventory Management Storage Administration Task Monitoring Logout

Appendix J: Add Software Images To PM&C Server

Appendix J: Add Software Images To PM&C Server

Step	Procedure	Result
4	PM&C GUI:	Press "Add Image" button.
	Add TPD image	Use the dropdown to select the image.
		Image Name Type Architecture Description
		There are no images in repository
		Add Image Edit Image Delete Image
		The image transferred to PM&C will appear in the list as a local file "/var/TKLC/".
		Images may be added from any of these sources:         • Tekelec-provided media in the PM&C host's CD/DVD drive (See Note)         • USB media attached to the PM&C's host (See Note)
		<ul> <li>External mounts. Prefix the directory with "extfile://".</li> <li>These local search paths:         <ul> <li>Nar/TKLC/upgrade/*.iso</li> <li>Nar/TKLC/smac/image/isoimages/home/smacftpusr/*.iso</li> </ul> </li> </ul>
		Note: CD and USB images mounted on PM&C's VM host must first be made accessible to the PM&C VM guest. To do this, go to the Media tab of the PM&C guest's View VM Guest page.
		Path: /var/TKLC/smac/image/isoimages/home/smacftpusr/872-2442-107-2.0.0_80.28.1-TVOE-x86_
		Description:
		Add New Image
		Select the appropriate path, enter an appropriate image description and press "Add New Image" button.

Appendix J:	Add Software	Images To	PM&C	Server
Appendix 0.	Add Continuit	innuges it		001101

Step	Procedure	Result		
5.	PM&C GUI: Monitor the Add Image status	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:		
		Manage Software Images Thu Nov 17 18:28:11 2011 UTC Info Tasks Info Software Image Mar/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. IFD=5.0.0_72:24.0-i386 Bootable i386 PMAC4.0.0_40.14.1-872-2291-101-i386 Upgrade i386 PMAC4.0.0_40.14.1-872-2291-101-i386 Upgrade i386 Edit Image Delete Image		
6.	<b>PM&amp;C GUI:</b> Wait until the <b>Add Image</b> task finishes	When the task is complete, its text changes to green and its Progress column indicates "100%". Check that the correct image name appears in the Status column: Manage Software Images Thu Nov 17 18:31:19 2011 UTC Thu Nov 17 18:31:19 2011 UTC Tasks Tasks Tasks Taget Status Done: 872-2290-101-1.0.0_72.24.0- 2011-11-17 100% 13:31:19 100% 13:31:19 100%		
7.	PM&C GUI: Load OCUDR ISO image to PM&C server	To load OCUDR ISO image to PM&C server, repeat steps 1 through 6 of this Procedure.		
8.	PM&C Server:	SSH to PM&C Server as admusr.		
	SSH to Server			

Step	Procedure	Result	
10.	PM&C Server: Create new xml directory	% mkdir -p /usr/TKLC/smac/etc/switch/xml	
11.	PM&C Server: Create new backup directory	% mkdir -p /usr/TKLC/smac/etc/switch/backup	
12.	PM&C Server: cd to new xml directory	% cd /usr/TKLC/smac/etc/switch/xml	
13.	<b>PM&amp;C Server:</b> Follow correct instruction paths based on release	For release 10.0.1_10.16.0, follow steps 14 through 16. For all other releases, follow steps 17 through 20.	
14.	PM&C Server: Copy xml zip file	<ul> <li>Please download the patch corresponding to Bug 20176264 from MOS ( My Oracle Support <u>https://support.oracle.com</u> ) and copy to /usr/TKLC/smac/etc/switch/xml.</li> <li>Go to "Patches and Updates" tab on the top of the page</li> <li>Click on "Product or Family (Advanced)</li> <li>Choose product as "Oracle Communications User Data Repository"</li> <li>Select proper release</li> </ul>	
15.	PM&C Server: Unzip the xml templates	% unzip the contents of the patch	
16.	10.16.0 steps complete	PROCEDURE COMPLETED for release 10.0.1_10.16.0	
17.	PM&C Server: Mount ISO	% mount /var/TKLC/smac/image/repository/UDR- <release>-x86_64.iso /mnt -o loop</release>	
18.	PM&C Server: Copy the xml templates	% cp /mnt/upgrade/overlay/UDR_NetConfig_Templates.zip /usr/TKLC/smac/etc/switch/xml	
19.	PM&C Server: Unmount the directory	% umount /mnt	
20.	PM&C Server: Unzip the xml templates	% unzip UDR_NetConfig_Templates.zip	
	THIS PROCEDURE HAS BEEN COMPLETED		

Appendix J: Add Software Images To PM&C Server

# 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
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Step	In this procedure you willapply server configuration scripts to rack mount servers.	
1.	Access the server's ILO VGA.	Connect to the server's ILO VGA using the access method described in <b>Appendix</b> A.
<b>2</b> .	ILO Remote Console:	Follow steps defined in C.1 Mounting Physical Media on HP Servers
	Nount the media containing the server configuration	or
	Sonpt.	C.2 Mounting Virtual Media on HP Servers
		to mount the physical (USB) or local (vitual) media containing the server configuration script.
		<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>
		NOAMP-A NOAMP -B

3.	ILO Remote Console:	Example: TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh
	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.	<pre>[root@pc9040833-no-a ~]# cp -p /<mount- point&gt;/TKLCConfigData.NO-A.sh /var/tmp/TKLCConfigData.sh [root@pc9040833-no-a ~]# • "Check off" the associated Check Box as addition is completed for each Server.</mount- </pre>
	<b>NOTE:</b> The server will poll the /var/tmp directory for the presence of the configuration file and automatically execute it when found.	NOAMP-A NOAMP -B
4.	ILO Remote Console:	*** NO OUTPUT FOR $\approx$ 3-20 MINUTES ***
	After the script completes, a broadcast message will be sent to the terminal.	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.
	Ignore the output shown and press the <b><enter></enter></b> key to return to the command prompt.	<pre>Please remove the USB flash drive if connected and reboot the server. <enter> [root@pc9040833-no-a ~]#</enter></pre>
	<b>NOTE:</b> The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.	"Check off" the associated Check Box as addition is completed for each Server.     NOAMP-A NOAMP -B

Appendix K.1: Applying Server Configuration with ILC	)
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5.	ILO Remote Console: Configure the time zone.	<pre>[root@pc9040833-no-a ~]# set_ini_tz.pl <time zone=""> 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. [root@pc9040833-no-a ~]# set_ini_tz.pl "America/New_York"</time></pre>
6.	ILO Remote Console: Initiate a reboot of the OCUDR Server.	<pre>[root@pc9040833-no-a ~]# init 6 • "Check off" the associated Check Box as addition is completed for each Server. NOAMP-A NOAMP -B</pre>
7.	ILO Remote Console: Output similar to that shown on the right may be observed as the server initiates a post-install reboot.	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-0000:00:1 input: Intel(R) Multidevice as /class/input/input4 input: USB HID v1.01 Keyboard [Intel(R) Multidevice] on usb-0000:0 Restarting system. machine restart
8.	ILO Remote Console: After the server has completed reboot Log back into the server as the "root" user.	CentOS release 5.6 (Final) Kernel 2.6.18-238.19.1.el5prerel5.0.0_72.22.0 on an x86_64 hostname1260476221 login: root Password: <root_password></root_password>

9.	ILO Remote Console:	*** TRUNCATED OUTPUT ***
	Output similar to that shown on the right will appear as the server access the command prompt.	<pre>VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomcol/cm5.16 PRODPATH= RELEASE=5.16 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/ usr/TKLC/awptransportmgr:/usr/TKLC/awpss7:/usr/TKLC/exhr PRODPATH=/opt/comcol/prod RUNID=00 [root@pc9040833-no-a ~]# • "Check off" the associated Check Box as addition is completed for each Server. NOAMP-A NOAMP-B</pre>
		[root@pc9040725-po-a ~1# ifconfig laren in laren -v inet6
10.	Console:	control Link encap:Ethernet HWaddr 52:54:00:6C:3C:B4 inet addr:192.168.1.11 Bcast:192.168.1.255
	Verify that the XMI and IMI IP addressess entered in Procedure 5 Step 19 have been applied. NOTE: For RMS	Mask:255.255.255.0 imi Link encap.Ethernet HWaddr 52:54:00:F6:DC:4A inet addr:169.254.2.2 )cast:169.254.2.255 Mask: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 Btast:10.250.39.31 Mask:255.255.255.240
	systems XMI and IMI are called by their device names: XMI = eth01	• "Check off" the associated Check Box as addition is completed for each Server.
	IMI = eth02	NOAMP-A NOAMP -B
	<b>NOTE:</b> The server's <b>XMI</b> & <b>IMI</b> addresses can be verified by reviewing the server configuration through the OCUDR GUI.	
	<i>i.e.</i> <u>Main Menu</u> → Configuration → Servers	
	Scroll to line entry containing the server's <b>hostname.</b>	

11	ILO Remote	[root@pc9040725-no-a ~]# <b>ntpq -np</b>
	Console:	remote refid st t when poll reach delay offset
	Use the "ntpq"	]1tter
	command to verify	
	that the server has connectivity to the	*10.250.32.10 192.5.41.209 2 u 651 1024 377 0.339 0.583 0.048
	assigned Primary and Secondary	+10.250.32.51 192.5.41.209 2 u 656 1024 377 0.416 0.641
	NTP server(s).	[root@pc9040725-no-a ~]#
		"Check off" the consisted Check Day of edition is completed for each
		Server.
		NOAMP-A NOAMP -B
		IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP
		AND EXECUTE THE FOLLOWING STEPS:
	Have the cu     IP addresse	stomer IT group provide a network path from the OAM server IP to the assigned NTP s.
	ONCE NETWORK C RESTART THIS PRO	ONNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN DCEDURE BEGINNING WITH STEP 6.
12.	ILO Remote Console:	# alarmMgralarmStatus
	Execute a "alarmMgr" to verify the current health of the server	NOTE: This command should return no output on a healthy system. If any alarms are reported as SNMP traps, please contact MY ORACLE SUPPORT (MOS) for assistance.
		<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>
		NOAMP-A NOAMP -B
13.	ILO Remote	# exit
	Console:	logout
	Exit session for the	Connection to 192.168.1.16 closed.
	aesirea server	#
		"Check off" the associated Check Box as addition is completed for each
		Server.
		NOAMP-A NOAMP -B
	<u> </u>	THIS PROCEDURE HAS BEEN COMPLETED

# K.2 Applying Server Configuration with PM&C

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

Step	In this procedure yo	ou will apply server configuration scripts to virtual servers.
1.	NOAMP Server A:	Use the Primary NOAMP-A XMI IP_address that was entered in <b>Procedure 11:</b> Configuring NOAMP-A Server (1st NOAMP site only)
	Connect to the NOAMP-A Server terminal at the Primary NOAMP site	<ul> <li>Step 22.</li> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>
		□ MP-1 □ MP-2 □ MP-3 □ MP-4
2.	NOAMP Server A: 1) Access the command prompt.	login as: admusr root@10.250.xx.yy's password: <b><admusr_password></admusr_password></b> Last login: Mon Jul 30 10:33:19 2012 from 10.25.80.199 \$
	2) Log into the Primary NOAMP- A server as the "admusr" user	"Check off" the associated Check Box as addition is completed for each Server.     NOAMP-A NOAMP-B SOAM-A SOAM-B     MP-1 MP-2 MP-3 MP-4
3.	NOAMP Server A: Output similar to that shown on the right will appear as the server access the command prompt.	<pre>*** TRUNCATED OUTPUT *** VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomcol/cm5.16 PRODPATH= RELEASE=5.16 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/us r/TKLC/awptransportmgr:/usr/TKLC/awpss7:/usr/TKLC/exhr PRODPATH=/opt/comcol/prod RUNID=00 [admusr@pc9040833-no-a ~]\$</pre>

Appendix K.2: Applying Server Configuration with I
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4.	NOAMP Server A:	2. [admusr@pc9040833-no-a ~]\$ <b>su -</b> password: < <b>root_password&gt;</b>
	Switch to root user.	"Check off" the associated Check Box as addition is completed for each Server.
		□ MP-1 □ MP-2 □ MP-3 □ MP-4
5.	NOAMP Server A:	<pre>[root@pc9040833-no-a ~]# cd /var/TKLC/db/filemgmt</pre>
	Change directory into the file	"Check off" the associated Check Box as addition is completed for each Server.
	management space	NOAMP-A NOAMP-B SOAM-A SOAM-B
		□ MP-1 □ MP-2 □ MP-3 □ MP-4
6.	NOAMP Server A:	MP-1     MP-2     MP-3     MP-4       [root@pc9040833-no-a ~]# ls -ltr TKLCConfigData*.sh
6.	NOAMP Server A: Get a directory	MP-1       MP-2       MP-3       MP-4         [root@pc9040833-no-a ~]# ls -ltr TKLCConfigData*.sh         *** TRUNCATED OUTPUT ***
<b>6.</b>	NOAMP Server A: Get a directory listing and find the desired servers	<pre>MP-1 MP-2 MP-3 MP-4 [root@pc9040833-no-a ~]# ls -ltr TKLCConfigData*.sh *** TRUNCATED OUTPUT *** -rw-rw-rw- 1 root root 1257 Aug 17 14:01 TKLCConfigData.NOAMP-A ,sh</pre>
6.	NOAMP Server A: Get a directory listing and find the desired servers configuration files	MP-1       MP-2       MP-3       MP-4         [root@pc9040833-no-a ~]# ls -ltr TKLCConfigData*.sh         *** TRUNCATED OUTPUT ***         -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
6.	NOAMP Server A: Get a directory listing and find the desired servers configuration files Note: Server names are in red.	MP-1 MP-2 MP-3 MP-4          [root@pc9040833-no-a ~]# ls -ltr TKLCConfigData*.sh         *** TRUNCATED OUTPUT ***         -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         • "Check off" the associated Check Box as addition is completed for each Server.
6.	NOAMP Server A: Get a directory listing and find the desired servers configuration files Note: Server names are in red.	<ul> <li>MP-1</li> <li>MP-2</li> <li>MP-3</li> <li>MP-4</li> <li>[root@pc9040833-no-a ~]# ls -ltr TKLCConfigData*.sh</li> <li>*** TRUNCATED OUTPUT ***</li> <li>-rw-rw-rw- 1 root root 1257 Aug 17 14:01 TKLCConfigData.NOAMP-A</li> <li>.sh</li> <li>-rw-rw-rw- 1 root root 1311 Aug 17 14:30 TKLCConfigData.NO-B.sh</li> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> <li>NOAMP-A</li> <li>NOAMP-B</li> <li>SOAM-A</li> <li>SOAM-B</li> </ul>

7.	NOAMP Server	
	A.	Note: The below example shows copying 2 files. Any number of configuration files can be copied in one step.
	Copy the	Galactic and provide a start provi
	configuration files found in the	[root@pc9040833-no-a ~]# <b>scp -p</b> < configuration_file-a>
	previous step to	admusr@10.240.39.4's password: <admusr password=""></admusr>
	that manages the	TKLCConfigData.so-carync-a.sh 100% 1741 1.7KB/s
	desired server	TKLCConfigData.so-carync-b.sh 100% 1741 1.7KB/s 00:00
		[root@no-mrsvnc-a filemgmt]#
		• "Check off" the associated Check Box as addition is completed for each Server.
		🗌 NOAMP-A 🗌 NOAMP-B 🗌 SOAM-A 🗌 SOAM-B
		□ MP-1 □ MP-2 □ MP-3 □ MP-4
8.	NOAMP Server A:	[root@pc9040833-no-a ~]# exit
		Connection to 192.168.1.4 closed.
	Exit the ssh	#
	NOAMP Server A:	<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>
		🗌 NOAMP-A 🗌 NOAMP-B 🗌 SOAM-A 🗌 SOAM-B
		□ MP-1 □ MP-2 □ MP-3 □ MP-4
9.	PM&C Server: Connect to the	Connect to the PM&C server's terminal using one of the access methods described in <b>Section 2.1.2.</b>
	PM&C Server terminal that manages the desired server	<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>
		NOAMP-A NOAMP-B SOAM-A SOAM-B
		MP-1 MP-2 MP-3 MP-4

10.	PM&C Server:	Note: The name of the configuration file varies for each server. The output is just an example.
	Copy the server configuration file to the Control IP for the desired	<pre>admusr@pmac ~]\$ scp -p /tmp/<configuration_file> admusr@<desiredserver_control_ip>:/tmp/ admusr@192.168.1.10's password: <admusr password=""></admusr></desiredserver_control_ip></configuration_file></pre>
	server	TKLCConfigData.so-carync-a.sh100% 17411.7KB/s00:00
	Note: The Control IP is listed in, <b>Procedure 3</b> :	<ul> <li>[root@pmac ~]</li> <li>"Check off" the associated Check Box as addition is completed for each</li> </ul>
	Create, IPM and Install Application on all Virtual Machines, Step	Server.
	12.	
11.	PM&C Server: Connect to the	Using an SSH client such as putty, ssh to the virtual server using root credentials and the < Control IP Address> from listed in, <b>Procedure 3</b> : Create, IPM and Install Application on all Virtual Machines, <b>Step 12</b> .
	desired server console from the PM&C Server Console	<pre>[root@PMAC-pc9040833 ~]# ssh admusr@<desiredserver_control_ip> admusr@192.168.1.10's password: <admusr_password></admusr_password></desiredserver_control_ip></pre>
		• "Check off" the associated Check Box as addition is completed for each Server.
		NOAMP-A NOAMP-B SOAM-A SOAM-B
		□ MP-1 □ MP-2 □ MP-3 □ MP-4
12.	Desired Server:	*** TRUNCATED OUTPUT ***
	Output similar to that shown on the right will appear as the server access the	<pre>VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomcol/cm5.16 PRODPATH= RELEASE=5.16 RUNID=00</pre>
	command prompt	VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/us r/TKLC/comagent-gui:/usr/TKLC/comagent:/usr/TKLC/exhr
		PRODPATH=/opt/comcol/prod RUNID=00
		[admusr@hostname1326744539 ~]\$
		"Check off" the associated Check Box as addition is completed for each Server.
		MP-1 MP-2 MP-3 MP-4

13.	Desired Server: Switch to root user.	<pre>[admusr@hostname1326744539 ~]\$ su - password: <root_password>      "Check off" the associated Check Box as addition is completed for each     Server.     NOAMP-A NOAMP-B SOAM-A SOAM-B</root_password></pre>
		□ MP-1 □ MP-2 □ MP-3 □ MP-4
14.	Desired Server: Copy the server configuration file to the "/var/tmp" directory on the server, making sure to rename the file by omitting the server hostname from the file name. NOTE: The server will poll the /var/tmp directory for the presence of the	Example:         TKLCConfigData<.server_hostname>.sh → will translate to →TKLCConfigData.sh         [root@pc9040833-no-a ~]# cp -p /tmp/TKLCConfigData.NO-B.sh         /var/tmp/TKLCConfigData.sh         [root@pc9040833-no-a ~]#         • "Check off" the associated Check Box as addition is completed for each Server.         □ NOAMP-A □ NOAMP-B □ SOAM-A □ SOAM-B         □ MP-1 □ MP-2 □ MP-3 □ MP-4
	configuration file and automatically execute it when found.	
15.	Desired Server: After the script completes, a broadcast message will be sent to the terminal.	<pre>*** NO OUTPUT FOR ≈ 3-20 MINUTES *** 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.</pre>
	Ignore the output shown and press the <b><enter></enter></b> key to return to the command prompt.	<pre>Please remove the USB flash drive if connected and reboot the server. <enter> [root@pc9040833-no-a ~]#</enter></pre>
	<b>NOTE:</b> The user should be aware that the time to complete this step varies by server and may take from 3-20 minutes to complete.	<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> <li>NOAMP-A NOAMP-B SOAM-A SOAM-B</li> <li>MP-1 MP-2 MP-3 MP-4</li> </ul>

16	Desired Server:	<pre>[root@pc9040833-no-a ~]# set_ini_tz.pl <time zone=""></time></pre>
	Configure the time zone.	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.
		[root@pc9040833-no-a ~]# set_ini_tz.pl "America/New_York"
		• "Check off" the associated Check Box as addition is completed for each Server.
		🗌 NOAMP-A 🗌 NOAMP-B 🗌 SOAM-A 🗌 SOAM-B
		☐ MP-1
17.	Desired Server:	[root@pc9040833-no-a ~]# init 6
	Initiate a reboot of the OCUDR Server.	<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>
		🗌 NOAMP-A 🗌 NOAMP-B 🗌 SOAM-A 🗌 SOAM-B
		□ MP-1 □ MP-2 □ MP-3 □ MP-4
18.	PM&C Server: The SSH session for the desired	The previous step should cause the ssh session to the desired server to close and user should return to the PM&C server console prompt. The user should see output similar to the below output:
	server was terminated by	Connection to 192.168.1.16 closed by remote host.
	previous step.	Connection to 192.168.1.16 closed.
	Output similar to that shown on the right may be observed.	<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>
		NOAMP-A NOAMP-B SOAM-A SOAM-B
		MP-1 MP-2 MP-3 MP-4

10	PM&C Server:         Wait about 9 minutes until the server reboot is done.					
	Wait until server reboot is done. Then, SSH into the desired server using the Control IP Address. Output similar to that shown on the right may be observed	Using an SSH client such as putty, ssh to the desired server using root credentials and the <control address="" ip=""> from listed in Procedure 3, Procedure 3: Create, IPM and Install Application on all Virtual Machines, Step 12. [root@PMAC-pc9040833 ~]# ssh admusr@192.168.1.xx admusr@192.168.1.20's password: <admusr_password> Note: If the server isn't up, wait a few minutes and re-enter the ssh command. You can also try running the "ping 192.168.1.xx" command to see if the server is up. • "Check off" the associated Check Box as addition is completed for each Server. NOAMP-A NOAMP-B SOAM-A SOAM-B</admusr_password></control>				
		MP-1 MP-2 MP-3 MP-4				
20.	Desired Server:	*** TRUNCATED OUTPUT ***				
	Output similar to that shown on the right will appear as the server access the command prompt.	<pre>VPATH=/opt/TKLCcomcol/runcm5.16:/opt/TKLCcomcol/cm5.16 PRODPATH= RELEASE=5.16 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/awpcommon:/us r/TKLC/awptransportmgr:/usr/TKLC/awpss7:/usr/TKLC/exhr PRODPATH=/opt/comcol/prod RUNID=00 [admusr@pc9040833-no-a ~]\$</pre>				
	Desired Server:					
21.	Desired Server: Switch to root user.	<pre>[admusr@hostname1326744539 ~]\$ su - password: <root_password>      "Check off" the associated Check Box as addition is completed for each     Server.     NOAMP-A NOAMP-B SOAM-A SOAM-B</root_password></pre>				
		☐ MP-1 ☐ MP-2 ☐ MP-3 ☐ MP-4				

	Desired Server:	<pre>[root@pc9040725-no-a ~]# ifconfig  grep in  grep -v inet6</pre>				
22.		control Link encap:Ethernet HWaddr 52:54:00:6C:3C:B4				
	Verify that the	inet addr:192.168.1.11 Bcast:192.168.1.255				
	XMI and IMI IP	imi Link encer Eliminat HWaddr 52.54.00.F6.DC.44				
	addresses	ipet addr.169 254 2 2 1cast.169 254 2 255 Mask.255 255 255 0				
	Procedure 5	lo Link eway lead toopback				
	Step 19 have	inct addr:127 0.0.1 Magk:255 0.0.0				
	been applied	umi Link onconsEthornot UWoddr 52.54.00.0E.1E.3P				
		inct addr:10 250 30 10 Prost:10 250 30 31				
	NOTE: The	Mask:255.255.255.240				
	server's XMI and					
	IMI addresses can					
	be verified by	"Check on" the associated Check Box as addition is completed for each     Sorver				
	reviewing the	Server.				
	configuration	📋 NOAMP-A 🔄 NOAMP-B 📋 SOAM-A 📋 SOAM-B				
	OCUDR GUI.					
	io	MP-1 MP-2 MP-3 MP-4				
	I.e. Main Manu					
	$\rightarrow$ Configuration					
	→ Servers					
	Scroll to line entry					
	containing the					
	server's					
	hostname.					
22	Desired Server:	[root@pc9040725-no-a ~]# <b>ntpq -np</b>				
23.	lloo tho fintne?	remote refid st t when poll reach delay offset				
	command to verify	jitter				
	that the server					
	has connectivity	*10.250.32.10 192.5.41.209 2 u 651 1024 377 0.339 0.583				
	to the assigned	0.048				
	Secondary NTP	+10.250.32.51 192.5.41.209 2 u 656 1024 377 0.416 0.641				
	server(s).	[root@pc9040725-no-a ~]#				
		"Check off" the associated Check Box as addition is completed for each				
		Server.				
		IF CONNECTIVITY TO THE NTP SERVER(S) CANNOT BE ESTABLISHED, STOP				
		AND EALOUTE THE FOLLOWING STEPS.				

	Have the curaddresses.	customer IT group provide a network path from the OAM server IP to the assigned NTP IP				
	ONCE NETWORK C RESTART THIS PRO	NNECTIVITY IS ESTABLISHED TO THE ASSIGNED NTP IP ADDRESSES, THEN CEDURE BEGINNING WITH STEP 17				
24.	Desired Server: # alarmMgralarmStatus Execute a					
	"alarmMgr" to verify the current health of the server	NOTE: This command should return no output on a healthy system. If any alarms are reported as SNMP traps, please contact MY ORACLE SUPPORT (MOS) for assistance.				
		"Check off" the associated Check Box as addition is completed for each Server.				
		NOAMP-A NOAMP-B SOAM-A SOAM-B				
		MP-1 MP-2 MP-3 MP-4				
25.	Desired Server:	# exit				
	Exit the SSH session for the desired server	logout Connection to 192.168.1.16 closed. #				
		<ul> <li>"Check off" the associated Check Box as addition is completed for each Server.</li> </ul>				
		NOAMP-A NOAMP-B SOAM-A SOAM-B				
		MP-1         MP-2         MP-3         MP-4				
26.	PM&C Server:	# exit				
	logout					
If the desired Connection to 192.168.1.4 closed.						
by a different PM&C server, do						
	this step. • "Check off" the associated Check Box as addition is completed for each Server.					
	Exit the SSH session for the second PM&C	NOAMP-A NOAMP-B SOAM-A SOAM-B				
	server	□ MP-1 □ MP-2 □ MP-3 □ MP-4				
27.	Repeat steps 1	· 26 for each remaining server				
28	PM&C Server:	PM&C Server:				
20.	Close PM&C Server Console	Close PM&C Server Console				

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

THIS PROCEDURE HAS BEEN COMPLETED

#### 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 [6].
- Interconnects should conform to reference [6].

Appendix L.1:	Configure	TVOE	Server	Network
	oomiguic		001401	<b>HOLMON</b>

Step	Procedure	Result		
1.	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.	<b>TVOE server:</b> Add VLAN for XMI	<pre># netAdm adddevice=bond0.<xmi_vlan> Interface bond0.# added</xmi_vlan></pre>		
3.	<b>TVOE server:</b> Add VLAN for IMI	<pre># netAdm adddevice=bond0.<imi_vlan> Interface bond0.# added</imi_vlan></pre>		
4.	<b>TVOE server:</b> Add VLAN for management	<pre>Note: 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. # netAdm adddevice=bond0.<management_vlan> Interface bond0.# added</management_vlan></pre>		

Appendix L.I. Connigure I VOL Server Network	Appendix L.1:	Configure	TVOE S	Server	Networ
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Step	Procedure	Result		
5.	<b>TVOE server:</b> Topology Check	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."		
		This will present the rear view of the enclosure.		
		Highlighted in red are a single pair of enclosure switches on a Topology 1/1A system:		
		Rack Topology Rack Power and Thermal		
		Enclosure: xgSDM-6_and_xgSDM-7		
		Front View Rear View		
		Highlighted in red are two pairs of enclosure switches on a Topology 4/4A system:		
		Rack Topology Rack Power and Thermal		
		Enclosure: 121_08_23_xgSDM5_Site1		
		Front View Rear View		

Appendix L.1:	Configure	TVOE	Server	Network
	ooninguic	IVOL		NCLWOIN

Step	Procedure	Result
6.	TVOE server:	Toplogy 4 and Topology 4A ONLY:
	Add bond for signalling	Deployments with two pairs of enclosure switches ( <b>Toplogy 4</b> and <b>Topology 4A</b> in reference <b>[6]</b> ) will host XSI on <b>bond1</b> :
	[Topology 4 only]	<pre># netAdm adddevice=bond1onboot=yesbootproto=none Interface bond1 added</pre>
7.	TVOE server:	Toplogy 4 and Topology 4A ONLY:
	Bond interfaces eth11 and eth12 for signalling	Deployments with two pairs of enclosure switches ( <b>Toplogy 4</b> and <b>Topology 4A</b> in reference <b>[6]</b> ) will host XSI on <b>bond1</b> :
	[Topology 4 only]	<pre># netAdm setdevice=bond1bondInterfaces=eth11,eth12 Interface bond1 updated</pre>
8.	TVOE server:	Deployments with only one pair of enclosure switches ( <b>Toplogy 1</b> and <b>Topology 1</b> in reference [6], will create XSI VLAN on bond0:
	Add VLAN for XSI-1	<pre># netAdm adddevice=bond0.<xsi1_vlan> Interface bond0.# added</xsi1_vlan></pre>
		or
		Deployments with two pairs of enclosure switches ( <b>Toplogy 4</b> and <b>Topology 4A</b> in reference <b>[6]</b> ) will create XSI VLAN on <b>bond1</b> :
		<pre># netAdm adddevice=bond1.<xsi1_vlan> Interface bond1.# added</xsi1_vlan></pre>
9.	Repeat Step 8 for	additional <b>XSI</b> networks if they are present, each using its own unique <b><xsi_vlan></xsi_vlan></b> number.
10.	<b>TVOE server:</b> Add bridge network for XMI	<pre># netAdm addname=xmitype=BridgebridgeInterface=bond0.<xmi_vlan> Bridge xmi added!</xmi_vlan></pre>
11.	TVOE server:	<pre># netAdm addname=imitype=BridgebridgeInterface=bond0.<imi_vlan> Bridge imi added!</imi_vlan></pre>
	Add bridge network for IMI	
12.	<b>TVOE server:</b> 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. network.
	-	<pre># netAdm addname=managementtype=Bridge \bridgeInterface=bond0.<management_vlan> Bridge management added!</management_vlan></pre>

#### Appendix L.1: Configure TVOE Server Network

Step	Procedure	Result			
13.	TVOE server: Add bridge network for XSI- 1	<pre>Deployments with only one pair of enclosure switches (Toplogy 1 and Topology 1A in reference [6]) will create XSI VLAN on bond0: # netAdm addname=xsi1type=Bridge \ bridgeInterface=bond0.<xsi1_vlan> Bridge xsi1 added!  Or Deployments with two pairs of enclosure switches (Toplogy 4 and Topology 4A in reference [6]) will create XSI VLAN on bond1: # netAdm addname=xsi1type=Bridge \ bridgeInterface=bond1.<xsi1_vlan> Bridge xsi1 added!</xsi1_vlan></xsi1_vlan></pre>			
14.	Repeat Step 13 fo	Repeat <b>Step 13</b> for additional <b>XSI</b> networks if they are present, each using its own unique <b><xsi_vlan></xsi_vlan></b> number.			
15.	Execute steps 16 and 17 if lab deployment hosts IVOE and PMAC on the XMI network/bridge.				
16.	<b>TVOE server:</b> Assign TVOE host an address on XMI network	<pre># netAdm settype=Bridgename=xmibootproto=none \address=<tvoe_xmi_address>netmask=<tvoe_xmi_netmask> Bridge XMI updated!</tvoe_xmi_netmask></tvoe_xmi_address></pre>			
17.	<b>TVOE Server:</b> Add the default route to XMI	<pre># netAdm addroute=defaultgateway=<xmi_default_route_ip> \    device=xmi Route to XMI added!</xmi_default_route_ip></pre>			
18.	Execute steps 19 and 20 if lab deployment hosts TVOE and PMAC on a separate routable managmenet network.				
19.	<b>TVOE server:</b> Assign TVOE host an address on management network	<pre># netAdm settype=Bridgename=managementbootproto=none \address=<tvoe_management_address>netmask=<management_netmask> Bridge management updated!</management_netmask></tvoe_management_address></pre>			
20.	TVOE Server: Add the default route to management	<pre># netAdm addroute=default gateway=<management_default_route_ip> \device=management Route to managementadded</management_default_route_ip></pre>			

Step	Procedure	Result
21.	TVOE Server:	Restart the network interfaces:
	Restart the network on the	<pre># service network restart</pre>
	server <b>Note</b> : Output similar to that shown on the	Shutting down interface control:[ OK ]Shutting down interface imi:[ OK ]Shutting down interface management:[ OK ]Shutting down interface xmi:[ OK ]
	right may be observed	Shutting down interface xsil:[ OK ]Shutting down interface xsil:[ OK ]
		Shutting down interface bond0.2:[ OK ]Shutting down interface bond0.3:[ OK ]Shutting down interface bond0.4:[ OK ]Shutting down interface bond0.5:[ OK ]Shutting down interface bond0.6:[ OK ]Shutting down loopback interface:[ OK ]Bringing up loopback interface:[ OK ]Bringing up interface bond0.2:[ OK ]Bringing up interface bond0.3:[ OK ]Bringing up interface bond0.4:[ OK ]Bringing up interface bond0.5:[ OK ]Bringing up interface bond0.4:[ OK ]Bringing up interface bond0.5:[ OK ]Bringing up interface bond0.6:[ OK ]Bringing up interface control:[ OK ]Determining IP information for control done.
		Image: Contract of the output returns any errors like FAILED, please stop and contact My Oracle Support (MOS) before continuing.       [OK]         Image: Contract of the output returns any errors like FAILED, please stop and contact My Oracle Support (MOS) before continuing.       [OK]

#### Appendix L.1: Configure TVOE Server Network

Appendix L.1:	Configure 1	<b>TVOE Serv</b>	er Network

Step	Procedure	Result
22	TVOE Server:	Set the server hostname by running the following:
	Set Hostname	# su - platcfg
		1. Navigate to Server Configuration ➤ Hostname          Hostname         Designation/Function         Configure Storage         Set Clock         Time Zone         Exit
		3. Set TVOE Management Server hostname
		<ul><li>4. Press OK.</li><li>5. Navigate out of Hostname</li></ul>
23	TVOE Server:	Set the time zone and/or hardware clock
	Set Time Zone and/or Hardware Clock	1. Navigate to Server Configuration ➤ Time Zone          Server Configuration Menu         Hostname         Designation/Function         Configure Storage         Set Clock         Time Zone         Exit         2. Select Edit.         3. Select the time zone and hit [enter].         4. Set hardware clock to GMT? [Select NO and enter]         5. Navigate out of Server Configuration

Step	Procedure	Result
24.	TVOE Server:	Configure SNMP trap destination.
24.	TVOE Server: Configure SNMP trap destination	Configure SNMP trap destination. 1. Navigate to Network Configuration > SNMP Configuration > NMS Configuration. SNMP Configuration Menu NS Configuration Exit 2. Select Edit and then choose 'Add a New NMS Server'. 3. The 'Add an NMS Server' page will be displayed. Rostname or IP: 10.250,54,215 NMP Community String: rCCC Cancel Cancel Cancel Cancel Cancel Modified an NMS entry in snmp.cfg file: Modified an NMS entry in snmp.cfg file: Modified an NMS entry in snmp.cfg file: Modified an NMS entry in snmp.cfg file: No Select Yes and then wait a few seconds while the Alarm Routing Service is restarted. 9. At that time the SNMP Configuration Menu will be presented. [exit out of this]
		<ul> <li>6. The 'NMS Server Action Menu' will now be displayed.</li> <li>7. Select Exit. The following dialogue will then be presented: <ul> <li>Modified an NMS entry in snmp.cfg file:</li> <li>Do you want to restart the Alarm Routing Service?</li> <li>Yes No</li> </ul> </li> <li>8. Select Yes and then wait a few seconds while the Alarm Routing Service is restarted.</li> <li>9. At that time the SNMP Configuration Menu will be presented. [exit out of this]</li> <li>Note: All alarm information will then be sent to the NMS located at the destination.</li> </ul>

Appendix L.1: Configure TVOE Server Network

Step	Procedure	Result
25.	TVOE Server: Configure NTP as NOAMP-A or Customer- provided IP Address	<ul> <li>1. Navigate to Network Configuration &gt; NTP.</li> <li>Network Configuration Menu Network Interfaces Network Bridges Configure Network Routing</li> <li>2. Select Edit, then "Add a New NTP Server."</li> <li>3. Enter the XMI IP Address of the NOAMP-A server. (Customer-provided for Low Capacity C- class Systems)</li> <li>Add an NTP Server</li> <li>Address:</li> <li>Address:</li> <li>Gottame (optional):</li> <li>Options:</li> <li>Options:</li> <li>Cancel</li> <li>Cancel</li> <li>Select Exit.</li> <li>Select Yes to restart ntp Service.</li> <li>Nodified an entry in the ntp.conf file:</li> <li>Nodified an entry in the ntp.conf file:</li> <li>Ito you want to restart the ntp Service?</li> <li>Too</li> <li>Too</li></ul>

	Appendix L.1:	Configure	TVOE	Server	Network
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Appendix L.1:	Configure	TVOE	Server	Network

Step	Procedure	Result
28.	TVOE Server:	Verify server health:
	Verify server health	# alarmMgr -alarmStatus
		<i>Note</i> : This command should return no output on a healthy system. If any alarms are reported, please stop and contact My Oracle Support (MOS) before continuing.
29.	TVOE Server:	Login as platcfg user. The platcfg main menu will be shown
	Perform a TVOE backup	# su - platcfg
		<ol> <li>Navigate to Maintenance ➤ Backup and Restore ➤ Backup Platform (CD/DVD)</li> <li>The 'Backup TekServer Menu' page will now be shown.</li> </ol>
		Backup TekServer Menu Select Backup Type (plat-app) View Index Table of Contents Select Backup Device (/dev/sr0) Select Backup Media (CD-R) Build ISO file only Test Backup Backup Exit 3. Select Build ISO file only. Note: Creating the ISO image may happen so quickly that this screen may only appear for an
		<ul> <li>After the ISO is created, platofg will return to the Backup TekServer Menu as shown in step 2.</li> </ul>
		<ul><li>5. The ISO has been created and is located in the /var/TKLC/bkp/ directory. An example filename</li></ul>
		of a backup file that was created is: "hostname1307466752-plat-app-201104171705.iso"
		6. Exit platefg.

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

Appendix L.1: Configure TVOE Server Network

#### L.2 Configure TVOE Network 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 OCUDR deployments.** 

Note: Interconnects should conform to Section 8 of reference [6].

Appendix L.2:	Configure	<b>TVOE Server</b>	Network	without	Interface	Bonding

Step	Procedure	Result
1.	Access the HP DL380 server's console.	Connect to the HP DL380 server's console using one of the access methods described in <b>Section 2.1.2.</b> (switch to root user)
2.	<b>TVOE server:</b> Delete bond0	# netAdm deletedevice=bond0
3.	<b>TVOE server:</b> Create XSI1	<pre># netAdm addname=xsi1type=BridgebridgeInterface=eth03</pre>

Appendix L.2:	Configure	<b>TVOE Server</b>	<b>Network with</b>	out Interface	Bonding

Step	Procedure	Result		
4.	TVOE server:	Optional: For deployments with a second XSI interface, create it now.		
	(optional)	<pre># netAdm addname=xsi2type=BridgebridgeInterface=eth04</pre>		
	Create XSI2			
5.	TVOE server:	<pre># netAdm addname=imitype=BridgebridgeInterface=eth02</pre>		
	Create IMI			
6.	TVOE server:	<pre># netAdm addname=xmitype=BridgebridgeInterface=eth01 \bootproto=noneaddress=<tvoe address="" xmi=""> \</tvoe></pre>		
	Create XMI	netmask= <tvoe_xmi_netmask></tvoe_xmi_netmask>		
7.	TVOE Server:	<pre># netAdm addroute=defaultgateway=<xmi_default_route_ip> \</xmi_default_route_ip></pre>		
	Add the default route to XMI	device=xml		
8.	TVOE Server:	Restart the network interfaces:		
	Restart the network on the	<pre># service network restart</pre>		
	server	<i>Note</i> : If the output returns any errors like FAILED, please stop and contact My Oracle Support (MOS) before continuing.		
	<b>Note</b> : Output similar to that			
	snown on the right may be observed			
9.	TVOE Server:	Set the server hostname by running the following:		
	Set Hostname	# su - platcfg		
		1. Navigate to Server Configuration ➤ Hostname		
		Server Configuration Menu		
		Hostname		
		Designation/Function Configure Storage		
		Set Clock		
		Exit		
		2. Select Edit		
		3. Set TVOE Management Server hostname		
		<b>5.</b> Navigate out of Hostname		

Step	Procedure	Result
Step	Procedure TVOE Server: Set Time Zone and/or Hardware Clock	Result         Set the time zone and/or hardware clock         1. Navigate to Server Configuration > Time Zone         Server Configuration Menu         Hostname         Designation/Function
		<ul> <li>Configure Storage Set Clock</li> <li>Time Zone Exit</li> <li>Select Edit.</li> <li>Set the time zone and/or hardware clock.</li> <li>Press OK.</li> <li>Navigate out of Server Configuration</li> </ul>

Appendix L.2: Configure TVOE Server Network without Interface Bonding
TVOE Server:	Configure SNMP trap destination.
TVOE Server: Configure SNMP trap destination	<ul> <li>Configure SNMP trap destination.</li> <li>I. Navigate to Network Configuration &gt; SNMP Configuration &gt; NMS Configuration.</li> <li>SNMP Configuration Menu NMS Configuration Exit</li> <li>2. Select Edit and then choose 'Add a New NMS Server'.</li> <li>3. The 'Add an NMS Server' page will be displayed.</li> <li>Most an NMS Server page will be displayed.</li> <li>Most an NMS Server page will be displayed.</li> <li>Most an NMS Server page will be displayed.</li> <li>Most an Complete the form by entering in all information about the SNMP trap destination.</li> <li>Select OK to finalize the configuration.</li> <li>Select Edit. The following dialogue will then be presented:</li> <li>Modified an NMS entry in smmp.cfg file: Modified an NMS entry in smmp.cfg file: NMO you want to restart the Alarm Routing Service?</li> <li>8. Select Yes and then wait a few seconds while the Alarm Routing Service is restarted.</li> </ul>
	<i>Note:</i> All alarm information will then be sent to the NMS located at the destination.
	Configure SNMP trap destination

Appendix L.2: Configure TVOE Server Network without Interface Bonding

Step	Procedure	Result
12.	TVOE Server:	1. Navigate to Network Configuration ➤ NTP.
	Configure NTP NOAMP-A	<ul> <li>Andread of Network Configuration Menu SNMP Configuration Menu Network Bridges Configure Network Routing NUP Tptables Iptables Iptables Iptables Iptables Iptables Iptables Iptables Iptables Iptables Iptables Iptables Iptables Iptables Instance (optional): Options:</li></ul>
	TVOE Server:	Reboot the server:
13.	Reboot the server	# init 6
		Wait until the reboot completes and re-login with TVOE root credentials.
14.	TVOE Server:	Verify server health:
	Verify server health	# alarmMgr -alarmStatus
		<i>Note:</i> This command should return no output on a healthy system. If any alarms are reported, please stop and contact My Oracle Support (MOS) before continuing.

Appendix L.2: Configure TVOE Server Network without Interface Bonding

Step	Procedure	Result
15.	TVOE Server:	Login as platcfg user. The platcfg main menu will be shown
	Perform a TVOE backup	# su - platofg
		<ol> <li>Navigate to Maintenance ➤ Backup and Restore ➤ Backup Platform (CD/DVD)</li> <li>The 'Backup TekServer Menu Backup TekServer Menu Select Backup Type (plat-app) View Index Table of Contents</li> </ol>
		Select Backup Device (/dev/sr0) Select Backup Media (CD-R) Build ISO file only Test Backup Backup Exit
		<b>3.</b> Select <b>Build ISO file only</b> . <i>Note:</i> Creating the ISO image may happen so quickly that this screen may only appear for an instant.
		System Busy Creating ISO Image This may take a while. Please wait
		4. After the ISO is created, platcfg will return to the Backup TekServer Menu as shown in step 2.
		<b>5.</b> 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: <i>"hostname1307466752-plat-app-201104171705.iso"</i>
		6. Exit platcfg.

## Appendix L.2: Configure TVOE Server Network without Interface Bonding

Step	Procedure	Result	
Step 16.	Procedure Customer Server SSH: Copy backup image to the customer server	Result         Login to the customer server and copy backup image to the customer server where it can be safely stored.         If the customer system is a Linux system, please execute the following command to copy the backup image to the customer system.         # scp tvoexfer@ <tvoe_ip_address>:backup/* /path/to/destination/         When prompted, enter the tvoexfer user password and press Enter.</tvoe_ip_address>	
		An example of the output looks like: <pre># scp tvoexfer@<tvoe address="" ip="">:backup/* /path/to/destination/ tvoexfer@10.24.34.73's password: hostname1301859532-plat-app-301104171705.iso 100% 134MB 26.9MB/s 00:05</tvoe></pre> The TVOE backup file has now been successfully placed on the Customer System.	
	THIS PROCEDURE HAS BEEN COMPLETED		

Appendix L.2: Configure TVOE Server Network without Interface Bonding

# L.3 Configure TVOE Network for Topology 7 (RMS Configuration)

This section for Topology 7 deployment requires HP DL360 rack mount servers.

## **Requirements:**

- An understanding of the topology being deployed, as outlined in reference [6]. •
- Interconnects should conform to reference [6]. (\*\* <nicx> values in the procedure below can be found in a ٠ table in this document)

Step	Procedure	Result
1.	TVOE server:	<b>**</b> Note: Switch to root user, if not already.
	Create bond0 device	Verify the bond0 network by running the following command
		<pre># netAdm querydevice=bond0</pre>

Appendix L.3: Configure TVOE Server Network for Topology 7

1.	TVOE Server.	Note: Switch to root user, if not already.
	Create bond0 device	Verify the bond0 network by running the following command
		<pre># netAdm querydevice=bond0</pre>
		Protocol: none
		IP Address:
		Netmask:
		On Boot: yes
		Bonded Mode: active-backup
		Monitor: MII
		Interval: 100
		Enslaving: eth01 eth02
		Type: Bonding
		If <b>bond0</b> exists and is enslaving <b>nic1</b> and <b>nic2</b> (refer to TR007403 for device name assignment), continue onto <b>Step 2</b> . Otherwise the bond must be created with these following commands: <b>#</b> netAdm adddevice=bond0 onboot=yestype=Bondingmode=active-backup miimon=100 Interface bond0 added
		<pre>Execute the following to set the slave interfaces: # netAdm setdevice=<nicl>type=Ethernet master=controlslave=yes Interface <ethernet_interface_1> updated # netAdm setdevice=<nic2>type=Ethernet master=controlslave=yes Interface <ethernet_interface_2> updated</ethernet_interface_2></nic2></ethernet_interface_1></nicl></pre>

Step	Procedure	Result
2.	TVOE server:	Verify the control network by running the following command:
	Reset control network	<pre># netAdm querytype=Bridgename=control Bridge Name: control On Boot: yes Protocol: dhcp Persistent: yes Promiscuous: no Bridge Interface: bond0 If the output matches the one above with Bridge Interface bond0, the Control Bridge must be modified with the following command to remove bond interface zero. Otherwise continue onto Step 3. # netAdm settype=Bridgename=control \delBridgeInt=bond0 # netAdm setdeuice=bond0 ==conboot=ues</pre>
		<pre># netAdm setdevice=bond0onboot=yes</pre>
3.	Add VLAN for IMI	<pre># netAdm adddevice=bond0.&lt;1mi_vian&gt;</pre>
<i>4.</i>	<b>TVOE server:</b> Add bridge network for IMI	<pre># netAdm addname=imitype=BridgebridgeInterface=bond0.<imi_vlan></imi_vlan></pre>
5.	TVOE server: Add Bond for XMI network	<pre># netAdm adddevice=bond1onboot=yesbootproto=none</pre>
<i>6.</i>	TVOE server: Bond interfaces eth11 and eth12 for XMI network	<pre># netAdm setdevice=bond1bondInterfaces=<nic5>,<nic6></nic6></nic5></pre>
7.	<b>TVOE server:</b> Add VLAN for XMI	<pre># netAdm adddevice=bond1.<xmi_vlan></xmi_vlan></pre>
8.	<b>TVOE server:</b> Add Bridge for XMI network	<pre># netAdm addname=xmitype=BridgebridgeInterface=bond1.<xmi_vlan></xmi_vlan></pre>
9.	Execute steps	10 – 12 if lab deployment hosts TVOE and PMAC on a separate routable management network.
10.	TVOE server:	<pre># netAdm adddevice=bond1.<management_vlan></management_vlan></pre>
	Add VLAN for management	Interface bond0.# added

# Appendix L.3: Configure TVOE Server Network for Topology 7

Step	Procedure	Result
11.	<b>TVOE server:</b> Add Bridge and TVOE IP on management network	<pre># netAdm addname=managementtype=Bridge \bridgeInterface=bond1.<management_vlan> \bootproto=noneonboot=yes \address=<tvoe_managemnt_ip> \netmask=<management_netmask></management_netmask></tvoe_managemnt_ip></management_vlan></pre>
12.	TVOE Server: Add the default route to management network	<pre># netAdm addroute=defaultgateway=<management_default_route_ip> \    device=management</management_default_route_ip></pre>
13.	Execute steps 14-	15 if lab deployment hosts TVOE and PMAC on the XMI network/bridge.
14.	<b>TVOE server:</b> Add Bridge and TVOE IP on XMI network	<pre># netAdm addname=xmitype=Bridge \bridgeInterface=bond1.<xmi_vlan> \bootproto=noneonboot=yes \address=<tvoe_xmi_ip> \netmask=<tvoe_xmi_netmask></tvoe_xmi_netmask></tvoe_xmi_ip></xmi_vlan></pre>
15.	TVOE Server: Add the default route to xmi network	<pre># netAdm addroute=defaultgateway=<xmi_default_route_ip> \device=xmi</xmi_default_route_ip></pre>
16.	<b>TVOE server:</b> Signaling Network 1 Configuration Bond interfaces eth13 and eth03	a. If rms1-ms1 NIC3 is connected Customer Switch 2/Signaling Network 1 (optional) <ol> <li>Add Bond for XSI1 network</li> <li>netAdm adddevice=bond2onboot=yesbootproto=none</li> <li>Bond interfaces eth13 and eth03 for XSI1 network</li> <li>netAdm setdevice=bond2bondInterfaces=<nic7>,<nic3></nic3></nic7></li> <li>Add VLAN for XSI1</li> <li>netAdm adddevice=bond2.<xsi1_vlan></xsi1_vlan></li> <li>Add Bridge for XSI1 network</li> <li>netAdm addname=xsi1type=BridgebridgeInterface=bond2.<xsi1_vlan></xsi1_vlan></li> <li>If rms1-ms1 NIC3 is not connected Customer Switch 2/Signaling Network 1 (optional)</li> <li>Add Bridge for XSI1 network</li> <li>netAdm addname=xsi1type=BridgebridgeInterface=<nic7></nic7></li> </ol>
17.	<b>TVOE server:</b> Signaling Network2 Configuration Bond interfaces eth14 and eth04	<ul> <li>a. If rms1-ms1 NIC4 is connected Customer Switch 2/Signaling Network 2 (optional)</li> <li>v. Add Bond for XSl2 network</li> <li># netAdm adddevice=bond3onboot=yesbootproto=none</li> <li>vi. Bond interfaces eth14 and eth04 for XSl2 network</li> <li># netAdm setdevice=bond3bondInterfaces=<nic8>,<nic4></nic4></nic8></li> <li>vii. Add VLAN for XSl2</li> <li># netAdm adddevice=bond3.<xsi2_vlan></xsi2_vlan></li> <li>viii. Add Bridge for XSl1 network</li> <li># netAdm addname=xsi2type=BridgebridgeInterface=bond3.<xsi2_vlan></xsi2_vlan></li> <li>b. If rms1-ms1 NIC4 is not connected Customer Switch 2/Signaling Network 2 (optional)</li> <li>ii. Add Bridge for XSl2 network</li> <li># netAdm addname=xsi2type=BridgebridgeInterface=<nic8></nic8></li> </ul>

Appendix L.3: Configure TVOE Server Network for Topology 7

Step	Procedure	Result	
18.	TVOE Server:	Restart the network interfaces:	
	Restart the network on the	<pre># service network restart</pre>	
	Restart the network on the server <b>Note</b> : Output similar to that shown on the right may be observed	<pre># service network restart Shutting down interface control: Shutting down interface imi: Shutting down interface xmi: Shutting down interface xsi1: Shutting down interface xsi1: Shutting down interface bond0.15: Shutting down interface bond0.16: Shutting down interface bond1.17: Shutting down interface bond1: Shutting down interface bond1: Shutting down interface bond1: Shutting down interface bond1: Shutting down interface bond0: Shutting down interface bond1: Shutting up interface bond1: Shutting up interface bond1: Shutting up interface bond1.17: Shinging up interface imi: Shinging up interface imi: Shinging up interface imi: Shinging up interface xmi: Determining if ip address 10.240.162.10 is already in use for device xmi </pre>	OK       ]         OK       ]
		<b>Note</b> : If the output returns any errors like FAILED, please stop and contact My (MOS) before continuing.	Oracle Support

## Appendix L.3: Configure TVOE Server Network for Topology 7

Step	Procedure	Result
19.	TVOE Server:	Set the server hostname by running the following:
	Set Hostname	# su - platcfg
		1. Navigate to Server Configuration ≻ Hostname          Server Configuration Menu         Hostname         Designation/Function         Configure Storage         Set Clock         Time Zone         Exit         2. Select Edit         3. Set TVOE Management Server hostname         4. Press OK.         5. Navigate out of Hostname
20.	TVOE Server: Set Time Zone and/or Hardware Clock	<pre>Set the time zone and/or hardware clock 1. Navigate to Server Configuration ➤ Time Zone         Server Configuration Menu         Hostname         Designation/Function         Configure Storage         Set Clock         Time Zone         Exit 2. Select Edit. 3. Set the time zone and/or hardware clock. 4. Press OK. 5. Navigate out of Server Configuration</pre>

# Appendix L.3: Configure TVOE Server Network for Topology 7

Step	Procedure	Result
21.	TVOE Server:	Configure SNMP trap destination.
	Configure SNMP trap destination	<ul> <li>1. Navigate to Network Configuration &gt; SNMP Configuration &gt; NMS Configuration.</li> <li>SNMP Configuration Menu NMS Configuration Exit</li> <li>2. Select Edit and then choose 'Add a New NMS Server'.</li> <li>3. The 'Add an NMS Server' page will be displayed.</li> <li>Add an NMS Server page ville displayed.</li> <li>Add an NMS Server i 162 SNMP Community String: TKLC</li> <li>GK Cancel</li> <li>Gancel</li> <li>Information about the SNMP trap destination.</li> <li>Select OK to finalize the configuration.</li> <li>6. The 'NMS Server Action Menu' will now be displayed.</li> </ul>
		<ul> <li>8. Select Yes and then wait a few seconds while the Alarm Routing Service is restarted.</li> <li>9. At that time the SNMP Configuration Menu will be presented.</li> </ul>

Appendix L.3: Configure TVOE Server Network for Topology 7



Appendix L.3: Configure TVOE Server Network for Topology 7





## Appendix L.3: Configure TVOE Server Network for Topology 7

Step	Procedure	Result
25.	TVOE Server:	Verify server health:
	Verify server health	# alarmMgr -alarmStatus
		<i>Note</i> : This command should return no output on a healthy system. If any alarms are reported, please stop and contact My Oracle Support (MOS) before continuing.
26.	TVOE Server:	Login as platcfg user. The platcfg main menu will be shown
	Perform a TVOE backup	# su - platcfg
		<ol> <li>Navigate to Maintenance ➤ Backup and Restore ➤ Backup Platform (CD/DVD)</li> <li>The 'Backup TekServer Menu' page will now be shown.</li> </ol>
		Backup TekServer Menu         Select Backup Type (plat-app)         View Index Table of Contents         Select Backup Device (/dev/sr0)         Select Backup Media (CD-R)         Build ISO file only         Test Backup         Backup         Exit         3. Select Build ISO file only.         Note: Creating the ISO image may happen so quickly that this screen may only appear for an
		<ul> <li><i>instant.</i></li> <li>Creating ISO Image This may take a while.</li> <li>Please wait</li> <li>4. After the ISO is created, platcfg will return to the Backup TekServer Menu as shown in step 2.</li> <li>5. The ISO has been created and is located in the /var/TKLC/hkp/ directory. An example filename</li> </ul>
		<b>5.</b> 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: <i>"hostname1307466752-plat-app-201104171705.iso"</i>
		6. Exit platefg.

# L.4 Configure Additional NTP Server

Appendix L.4: Configure Additional NTP Server

Step	Procedure	Result
1.	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.	TVOE Server:	Set the server hostname by running the following:
	Add additional NTP server.	# su - platcfg
		<ul> <li>1. Navigate to Network Configuration &gt; NTP.</li> <li>Network Configuration Menu Network Bridges Configure Network Bridges Network Bridges Particles Network Bridges Network Bridges Particles Network Bridges Network Bridg</li></ul>
		7. Select Exit twice to leave platcfg.

	Appendix L.4:	Configure	Additional	NTP	Server
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Step	Procedure			Result			
3.	Desired Server: Use the " <b>ntpa</b> "	# <b>ntpq -np</b> remote	refid	st t when poll r	each delay	offset	jitter
	command to verify that the server has connectivity to	+10.250.32.10 +10.250.32.51	192.5.41.209 192.5.41.209	2 u 651 1024 2 u 656 1024	377 0.339 377 0.416	0.583 0.641	0.048 0.086
	the assigned NTP servers.	5. #					
	THIS PROCEDURE HAS BEEN COMPLETED						

# Appendix M. Removing Disk Array Configuration

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

# M.1 Removing RMS Disk Array Configuration

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

Step	Procedure	Result
1.	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.	Change to root user home directory	# cd
3.	Shutdown all the VM Guests	<pre>** Execute For Low Capacity RMS Configuration only Shutdown all the VM Guests on TVOE # virsh shutdown <vm_guest_name> Verify that all the Guests have been shut down with command: # virsh list</vm_guest_name></pre>
		No VMs should be listed in the output of the above command.

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

Step	Procedure	Result
4.	Remove volume group or storage pool	<pre>**Execute For Low Capacity RMS Configuration only  ** Execute For Low Capacity RMS Configuration only  ** Lvs 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 Volume group "stripe_vg" successfully removed  # virsh pool-list Name State Autostart</pre>
5.	Remove all three physical volumes sdb, sdc, & sdd	<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>
6.	Delete logical drive slot 2 ld <b>1</b>	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl all show config Execute For Low Capacity RMS Configuration only: # hpssacli ctrl all show config

Appe	ndix M	l.1:	Removi	ng	RMS	Disk	Array	Config	gurati	on

Step	Procedure	Result
7.	Verify output matches expected values	<b>IMPORTANT:</b> If output from <b>show config</b> differs from the example here, you must adjust the <b>slot</b> and <b>ld</b> 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 <b>logicaldrive</b> of two physical disks: <i>it is important not to delete this logical drive</i> .
		Smart Array P420 in <b>Slot 2</b> (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 <b>Slot 0</b> (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)

Step	Procedure	Result
8.	Delete logical drive slot 2 ld <b>1</b>	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl slot=2 ld 1 delete Execute For Low Capacity RMS Configuration only: # hpssacli ctrl slot=2 ld 1 delete
		Warning: Deleting the specified device(s) will result in data being lost. Continue? (y/n) y
9.	Delete logical drive slot 2 ld <b>2</b>	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl slot=2 ld 2 delete Execute For Low Capacity RMS Configuration only: # hpssacli ctrl slot=2 ld 2 delete
		Warning: Deleting the specified device(s) will result in data being lost. Continue? (y/n) y
10.	Delete logical drive slot <b>0</b> ld 1	Execute For Normal Capacity RMS Configuration only: # hpacucli ctrl slot=0 ld 2 delete Execute For Low Capacity RMS Configuration only: # hpssacli ctrl slot=0 ld 2 delete
		Warning: Deleting the specified device(s) will result in data being lost. Continue? (y/n) y
	L	THIS PROCEDURE HAS BEEN COMPLETED

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

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

Appendix M.2: Removing	Blade Disk Arra	v Configuration	(Sidecar)
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Step	Procedure	Result
1.	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.	Change to root user home directory	# cd

reportant inig blade blott i i ay configuration (chaccar)
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Step	Procedure	Result				
3.	Shutdown all the	** Execute For Low Capacity C-Class Configuration only				
	VM Guests	Shutdown all the VM Guests on TVOE				
		<pre># virsh shutdown <vm_guest_name></vm_guest_name></pre>				
		Verify that all the Guests have been shut down with command:				
		# virsh list				
		No VMs should be listed in the output of the above command.				
4.	Remove volume	** Execute For Low Capacity C-Class Configuration only				
	group or storage	# lvs				
	poor	LV VG Attr LSize Pool Origin Data% Move Log Cpv%Sync Convert				
		rundb stripe_vg -wa-ao 385.01g				
		If stripe_vg is present then remove it				
	<pre># vgremove stripe_vg Do you really want to remove volume group "stripe_vg" containi logical volumes? [y/n]: y Do you really want to remove active logical volume rundb? [y/n</pre>					
		Volume group "stripe_vg" successfully removed				
		# virsh pool-list				
		Name State Autostart				
		stripePool_vg active yes				
		vgguests active yes				
		If stripePool_vg is present then remove it with below steps				
		<pre># virsh pool-destroy stripePool_vg</pre>				
		Pool stripePool_vg destroyed				
		<pre># virsh pool-undefine stripePool_vg</pre>				
		Pool stripePool_vg has been undefined				
		<pre># vgremove stripePool_vg</pre>				
		Do you really want to remove volume group "stripePool_vg" containing 1 logical volumes? [y/n]: y				
		Volume group "stripePool_vg" successfully removed				

Procedure	Result		
Remove volume	** Don't execute for Low Capacity C-Class		
group	<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>		
Remove physical volume sdb	<pre># pvremove /dev/sdb Labels on physical volume "/dev/sdb" successfully wiped</pre>		
Display the Configuration	Execute For Normal Capacity Blade Configuration only: # hpacucli ctrl all show config		
	Execute For Low Capacity Blade Configuration only: # hpssacli ctrl all show config		
Verify output matches expected values	<b>IMPORTANT:</b> If output from <b>show config</b> differs from the example here, you must adjust the <b>slot</b> and <b>ld</b> parameters in the commands to follow. There should be two slots (numbered 0 and 3). Slot 0 should contain a logicaldrive of two physical disks: <i>it is important not to delete this logical drive</i> .		
	Smart Array P220i in <b>Slot 0</b> (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 <b>Slot 3</b> (sn: 5001438025905EB0)		
	array A (SAS, Unused Space: 0 MB) logicaldrive 1 (820.2 GB, RAID 1+0, OK)		
	<pre>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 8, SAS, 146 GB, OK) physicaldrive 1I:1:10 (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)</pre>		
	ProcedureRemove volumegroupRemove physicalvolume sdbDisplay the ConfigurationVerify output matches expected values		

Appendix M.2: Removing	Blade Disk Array	<b>Configuration</b>	(Sidecar)
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Appendix M.2:	Removing Bla	ade Disk Array	Configuration	(Sidecar)
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Step	Procedure	Result
9.	Delete logical drive slot 3 ld <b>1</b>	Execute For Normal Capacity Blade Configuration only: # hpacucli ctrl slot=3 ld 1 delete Execute For Low Capacity Blade Configuration only: # hpssacli ctrl slot=3 ld 1 delete Warming: Deleting the specified device(a) will result in data being last
		Warning: Deleting the specified device(s) will result in data being lost. Continue? $(y/n) y$
THIS PROCEDURE HAS BEEN COMPLETED		

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

UDR Network Elements can be created by using an XML configuration file. The OCUDR software image (\*.iso) contains two examples of XML configuration files for "NO" (Network OAM&P) and "SO" (System OAM) networks. These files are named **SDM\_NOAMP\_NE.xml** and **SDM\_SOAM\_NE.xml** and are stored on the /usr/TKLC/udr/xml directory. The customer is required to create individual XML files for each of their OCUDR 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 – OCUDR XML NOAMP Network Element Configuration File

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

## 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 not that at the writing of this document, the supported versions of Netbackup in OCUDR 10.0.1 are 7.1 and 7.5.

## 0.1 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

TACTORN CO	Surgeration definity 3.03 (c) 2003 - 2011 (Excise, Inc.
Hostname:	pmacDev8
	Enable Push of Netbackup Client
	Do you wish to initialize this server for NetBackup Client?
	Voz No

• 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/openv/netbackup/client/Linux/7.5

Execute the sftp\_to client NetBackup utility using the application IP address and application netbackup 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/openv/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/openv/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 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, <u>DO NOT</u> 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** 

Do you wish to remove the filetransfer user?
Yes

• 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

	Configure Hosts
	Edit
Address	Aliases
127.0.0.1	localhost pmacDev8 smacweb
102 169 1 101	localhost6.localdomain6 localhost6
192.100.1.101	client nnn0
192.168.1.103	server nnn1
192.168.1.104	client ppp1
192.168.176.1	ntpserver1
192.168.176.45	nb70server

• Select Edit, the Host Action Menu will be displayed.

Host Action Menu Add Host Delete Host Add Alias Edit Alias Delete Alias Exit

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

Add Host
IP Address: Initial Alias:
OK Cancel

• 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/openv/netbackup/bin/bpstart_notify
```

# ln -s <path>/bpend\_notify /usr/openv/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 Netbackup Client Install/Upgrade with platefg.

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

```
OCUDR 10.0.1
```

- 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/openv/netbackup/bin/
- # ln -s <path>/bpstart\_notify /usr/openv/netbackup/bin/bpstart\_notify
- # ln -s <path>/bpend\_notify /usr/openv/netbackup/bin/bpend\_notify

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

## 4. Application server iLO: Verify NetBackup configuration file

- Open /usr/openv/netbackup/bp.conf and make sure it points to the NetBackup Server using the following command:
  - # vi /usr/openv/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 = 10.240.10.185
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 timezone strings that can be used for the time zone setting in a CSV file, or as the time zone parameter when manually setting a DSR blade timezone. For an exhaustive list of **ALL** timezones, log onto the PM&C server console and view the text file: /usr/share/zoneinfo/zone.tab

Table 11 ·	<ul> <li>List of</li> </ul>	Selected	Time Zo	ne Values
------------	-----------------------------	----------	---------	-----------

Time Zone Value	Description	Universal Time Code (UTC) Offset
Etc/UTC	GMT	0
America/New_York	Eastern Time	UTC-05
America/Chicago	Central Time	UTC-06
America/Denver	Mountain Time	UTC-07
America/Phoenix	Mountain Standard Time - Arizona	UTC-07
America/Los_Angeles	Pacific Time	UTC-08
America/Anchorage	Alaska Time	UTC-09
Pacific/Honolulu	Hawaii	UTC-10
Africa/Johannesburg		UTC+02
America/Mexico_City	Central Time - most locations	UTC-06
Africa/Monrovia		UTC+00
Asia/Tokyo		UTC+09
America/Jamaica		UTC-05
Europe/Rome		UTC+01

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

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

# Appendix Q. 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 2 for Non-technical issue

You will be connected to a live agent who can assist you with MOS registration and provide Support Identifiers. Simply mention you are a Tekelec Customer new to MOS.

MOS is available 24 hours a day, 7 days a week, 365 days a year.

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