

**Oracle® Communications
User Data Repository**

Software Upgrade Procedure

Release 15.1.0.0.0

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ORACLE®

Oracle Communications User Data Repository Software Upgrade Procedure, Release 15.1.0.0.0
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Before recovering any system, please access My Oracle Support (MOS) (<https://support.oracle.com>) and review any Alerts that relate to this procedure.

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See more information on MOS in the Appendix section.

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1. INTRODUCTION

1.1 Purpose and Scope

This document describes the methods utilized and the procedures executed to perform a major upgrade from Oracle Communications User Data Repository 12.11.x to Oracle Communications User Data Repository 15.1.0.0.0 release via 15.0.4.0.0. The audience for this document includes Oracle customers as well as the following internal groups: Software Development, Quality Assurance, Product Verification, Information Development, and Consulting Services including NPX. This document provides step-by-step instructions to execute Release 15.1.0.0.0 or later software upgrade. The Oracle Communications User Data Repository software includes all Oracle's Tekelec Platform Distribution (TPD) software. Any TPD upgrade necessary is included automatically as part of the software upgrade. The execution of this procedure assumes that the Oracle Communications User Data Repository software load (ISO file, CD-ROM or other form of media) has already been delivered to the customer's premises. This includes delivery of the software load to the local workstation being used to perform this upgrade.

1.1.1 What is Not Covered by this Document

- Distribution of Oracle Communications User Data Repository 15.1 software loads. Please visit the Oracle Software Delivery Cloud here: <https://edelivery.oracle.com/osdc/faces/Home.jspx>
- Initial Installation of Oracle Communications User Data Repository 12.11 software. Refer [1].

1.2 References

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

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

- [1] Oracle Communications User Data Repository *Installation and Configuration Guide*, F56659-01, latest revision
[2] Oracle Communications User Data Repository *Cloud Installation and Configuration Guide*, F87587-01, latest revision

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1.3 Acronyms

This section describes acronyms used in this document.

Acronym	Meaning
CGBU	Communications Global Business unit
CD-ROM	Compact Disc Read-only Media
CSV	Comma-separated Values
DB	Database
DIU	Dual Image Upgrade
DR	Disaster Recovery
FOA	First Office Application
GA	General Availability
GPS	Global Product Solutions
GUI	Graphical User Interface
HA	High Availability
IMI	Internal Management Interface
IP	Internet Protocol
IPM	Initial Product Manufacture
ISO	ISO 9660 file system (when used in the context of this document)
LA	Limited Availability
MOP	Method of Procedure
MOS	My Oracle Support
MP	Message Processing or Message Processor
MW	Maintenance Window
NE	Network Element
NO	Network OAM&P
NOAMP	Network OAM&P
OA	HP Onboard Administrator
OAM	Operations, Administration and Maintenance
OAM&P	Operations, Administration, Maintenance and Provisioning
OCUDR	Oracle Communications User Data Repository
PM&C	Platform Management and Configuration
RMS	Rack Mount Server
SO	System OAM
SOAM	System OAM
SPR	Subscriber Profile Repository
TPD	Tekelec Platform Distribution
TVOE	Tekelec Virtualized Operating Environment
UDR	User Data Repository
UI	User Interface
VIP	Virtual IP
VM	Virtual Machine
VPN	Virtual Private Network
XMI	External Management Interface
XSI	External Signaling Interface

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Table 1 - Acronyms

1.4 Terminology

This section describes terminology as it is used within this document.

Term	Meaning
Upgrade	The process of converting an application from its current release on a System to a newer release.
Major Upgrade	An upgrade from a current release to a newer major release. An example of a major upgrade is: release 12.11.x to release 15.0
Minor Upgrade	An upgrade from a current release to a newer minor release. An example of a minor upgrade is: release 15.0.x to release 15.1.0
Release	Release is any particular distribution of software that is different from any other distribution.
Single Server Upgrade	The process of converting an Oracle Communications User Data Repository server from its current release on a single server to a newer release.
Standalone Server Upgrade	Single server upgrade performed on a standalone server. This upgrade requires the use of the platcfg UI.
Software Only Upgrade	An upgrade that does not require a Database Schema change, only the software is changed.
DB Conversion Upgrade	An upgrade that requires a Database Schema change performed during upgrade that is necessitated by new feature content or bug fixes.
Backout	The process of converting a single Oracle Communications User Data Repository server to a prior version. This could be performed due to failure in Single Server Upgrade or the upgrade cannot be accepted for some other reason. Backout is a user initiated process.
Downgrade/Backout	The process of converting an Oracle Communications User Data Repository server from its current release to a prior release. This could be performed due to a misbehaving system. Once the upgrade is accepted, servers cannot be backed out to previous release.
Rollback	Automatic recovery procedure that puts a server into its pre-upgrade status. This procedure occurs automatically during upgrade if there is a failure.
Source Release	Software release to upgrade from.
Target Release	Software release to upgrade to.
Oracle RMS	Oracle Server X5-2 or Netra X5-2
Primary NOAM Network Element	The network element that contains the active and standby NOAM servers in an Oracle Communications User Data Repository. If the NOAMs are deployed on a rack-mount server (and often not co-located with any other site), that RMS is considered the primary NOAM network element. If the NOAMs are virtualized on a C-class blade that is part of one of the sites, then the primary NOAM network element and the signaling network element hosting the NOAMs are one and the same.
DR NOAM Network Element	Disaster Recovery NOAMs that are ready to take over as the primary Site if a disaster should occur.

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Signaling Network Element	Any network element that contains MPs (and possibly other C-level servers), thus carrying out Diameter signaling functions. Each SOAM pair and its associated C-level servers are considered a single signaling network element. And if a signaling network element includes a server that hosts the NOAMs, that signaling network element is also considered to be the primary NOAM network element.
Site	Physical location where one or more network elements reside.
Health Check	Procedure used to determine the health and status of the network. This includes statuses displayed from the GUI. This can be observed Pre-Server Upgrade, In-Progress Server Upgrade, and Post-Server Upgrade.
Upgrade Ready	State that allows for graceful upgrade of a server without degradation of service. It is a state that a server is required to be in before it can be upgraded. The state is defined by the following attributes: Server is Forced Standby Server is Application Disabled (Signaling servers will not process any traffic)
UI	User interface. "Platcfg UI" refers specifically to the Platform Configuration Utility User Interface, which is a text-based user interface.
Management Server	Server deployed with HP c-class or RMS used to host PM&C application, to configure Cisco 4948 switches and to serve other configuration purposes.
Software Centric	The business practice of delivering an Oracle software product, while relying upon the customer to procure the requisite hardware components. Oracle provides the hardware specifications, but does not provide the hardware, and is not responsible for hardware installation, configuration, or maintenance.
Enablement	The business practice of providing support services (hardware, software, documentation, etc) that enable a 3rd party entity to install, configuration, and maintain Oracle products for Oracle customers.
1+1	Setup with one active and one standby MP.
N+0	Setup with N active MP(s) but no standby MP.
NO	Network OAM for Oracle Communications User Data Repository.
SO	System OAM for Oracle Communications User Data Repository.

Table 2 - Terminology

1.5 How to use this Document

When executing this document, there are a few key 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.
3. If a procedural STEP fails to execute successfully or fails to receive the desired output, STOP and contact 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> for assistance before attempting to continue.

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1.5.1 Executing Procedures

The user should be familiar with the structure and conventions used within these procedures before attempting execution. **Table 3** and the details below provide an example of how procedural steps might be displayed within this document.

Column 1: Step

- Column 1 in **Table 3** contains the Step number and a checkbox if the step requires action by the user.
- Sub-steps within a given Step X are referred to as Step X.Y. (See example: Step 1 has sub-steps Steps 1.1 to 1.2).
- Each checkbox should be checked-off to keep track of the progress during execution of the procedure.

Column 2: Procedure

- Column 2 in **Table 3** contains a heading which indicates the server/IP being accessed as well as text instructions and/or notes to the user. This column may also describe the operations to be performed or observed during the step.

Column 3: Result

- Column 3 in **Table 3** generally displays the results of executing the instructions (shown in column 2) to the user.
- The Result column may also display any of the following:
 - Inputs (commands or responses) required by the user.
 - Outputs which should be displayed on the terminal.
 - Illustrations or graphic figures related to the step instruction.
 - Screen captures from the product GUI related to the step instruction.

Procedure x: Verifying the Time in GMT

Step	Procedure	Result
1. ☐	Active NOAMP VIP: 1)Access the command prompt. 2)Log into the server as the "admusr" user.	Login as: admusr Using keyboard-interactive authentication. Password: <password> NOTE: The password will not appear on the screen as the characters are typed.
2. ☐	Active NOAMP VIP: Output similar to that shown on the right will appear as the server returns to a command prompt.	*** TRUNCATED OUTPUT *** VPATH=/opt/TKLCcomcol/runcm6.3:/opt/TKLCcomcol/cm6.3 PRODPATH= RELEASE=6.3 RUNID=00 VPATH=/var/TKLC/rundb:/usr/TKLC/appworks:/usr/TKLC/udr:/usr/TKLC/awpcomm on:/usr/TKLC/comagent- gui:/usr/TKLC/comagent:/usr/TKLC/dpi:/usr/TKLC/capm/prod/plugins PRODPATH=/opt/comcol/prod RUNID=00 [admusr@908070109-NO-A ~]\$

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Procedure x: Verifying the Time in GMT

Step	Procedure	Result
3. ☐	Active NOAMP VIP: Verify that the correct Date & Time are displayed in GMT (+/- 4 min.)	<pre>date -u Thu Apr 24 17:13:17 UTC 2014 [admusr@908070109-NO-A filemgmt]\$</pre>
THIS PROCEDURE HAS BEEN COMPLETED		

Table 3 - Sample Procedure

1.6 Recommendations

This section provides some recommendations to consider when preparing to execute the procedures in this document.

1.6.1 Frequency of Health Checks

The user may execute the **Perform Health Check** or **View Logs** steps freely or repeat as many times as desired in between procedures during the upgrade process. It is not recommended to do this in between steps within a procedure unless there is a failure to troubleshoot.

1.6.2 Logging of Upgrade Activities

It is a best practice to use a terminal session with logging enabled to capture user command activities and output during the upgrade procedures. These can be used for analysis in the event of issues encountered during the activity. These logs should be saved offline at the completion of the activity.

Note that GUI activities are logged in a security log, but it is also recommended to use a screen capture tool to collect a sequence of screen shots before, during, and after the upgrade. This can also be useful for later analysis.

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2. GENERAL DESCRIPTION

This document defines the step-by-step actions performed to execute a software upgrade of an in-service Oracle Communications User Data Repository from the source release to the target release. A major upgrade advances the Oracle Communications User Data Repository software from 15.0.4,15.0.5 and 15.0.6 source release to 15.1.0 target release.

Note: We support 15.x.x to 15.0.1 incremental upgrade. OL6 to OL8 is only supported till 15.0.3. Thereafter use OL8 to OL8 upgrade.

2.1 Supported Upgrade Paths

The supported Oracle Communications User Data Repository upgrade paths are shown in Figure 1 below.

OL8 based TPD server to OL8 based TPD Upgrade:

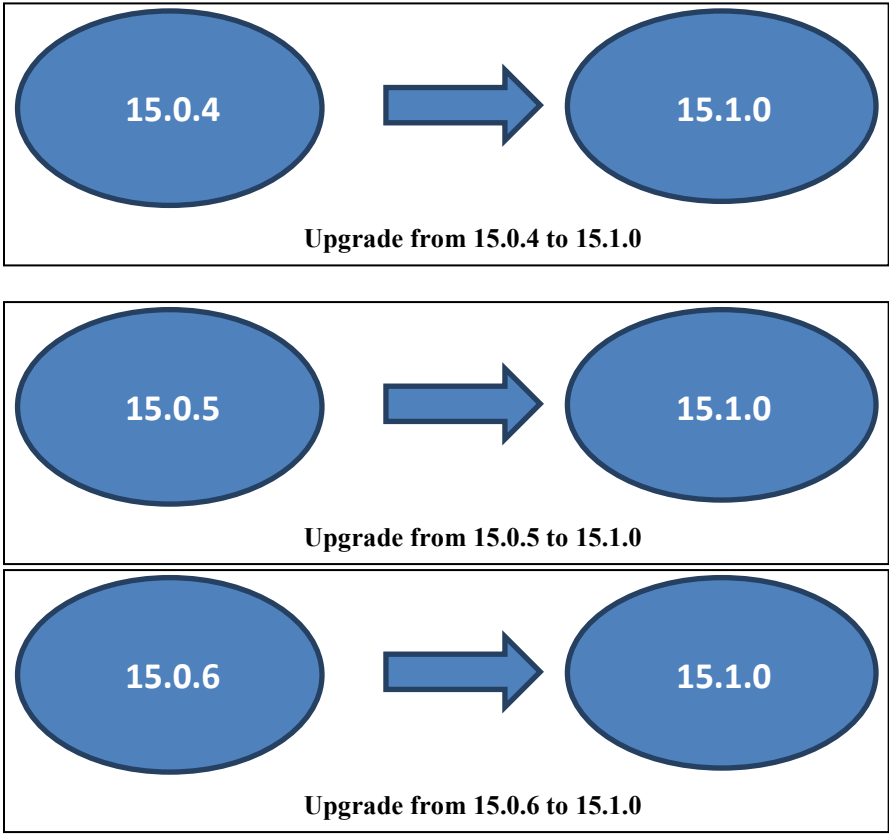


Figure 1: Supported Upgrade Paths

NOTE: Initial installation is not within the scope of this upgrade document. See [1] for initial installation requirements.

2.2 Traffic Management during Upgrade

Upgrade of NOAM and SOAM servers is not expected to affect traffic handling at the MPs and other traffic-handling servers.

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For the upgrade of the MPs, traffic connections are disabled only for the servers being upgraded. The remaining servers continue to service traffic.

2.3 Provisioning during Upgrade

For Oracle Communications User Data Repository 12.11.x, Provisioning (live traffic) will still continue while upgrade is being executed. While the standby NOAMP is being upgraded, the Active NOAMP will still receive provisioning requests. After the upgrade is complete, replication will be turned on to the Standby NOAMP to sync the most recent requests from the active NOAMP. Then the Standby NOAMP will become active to start receiving provisioning requests, while the previous Active NOAMP is being upgraded.

2.4 Configurations

2.4.1 Cloud Configurations

This includes all Oracle Communications User Data Repository software running within a cloud environment. This can be deployed either as a single site or as a geo-redundant deployment, with 1 or two 2 servers filling each role at each site. See reference [2] for full details.

Non HA				
Min number of VMs	Max number of VMs	Min number of VMs	Max number of VMs	HA config
1	2	2	2	Active-Standby
1	2	2	2	Active-Standby
1	1	2	4	Active-Active

2.5 Multi Active MPs

The site upgrade procedure is for multi-Active MPs. This includes two per site for Low Capacity configurations or up to 4 per site for Normal Capacity Configurations. Single server configurations only have one active MP.

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3. UPGRADE PLANNING AND PRE-UPGRADE PROCEDURES

This section contains all information necessary to prepare for and execute an upgrade. The materials required to perform an upgrade are described, as are pre-upgrade procedures that should be run to ensure the system is fully ready for upgrade. Then, the actual procedures for each supported upgrade path are given.

There are overview tables throughout this section that help you plan the upgrade and estimate how long it will take to perform various actions. The stated time durations for each step or group of steps are estimates only. Do not use the overview tables to execute any actions on your system. Only the procedures should be used when performing upgrade actions, beginning with Procedure 1: Required Materials Check.

3.1 Required Materials

The following materials and information are needed to execute an upgrade:

- Target-release application DIU ISO image file and OL7 based TPD DIU iso file, or target-release application media.
- GUI access to the Oracle Communications User Data Repository Network OAM&P VIP with Administrator privileges.
- User logins, passwords, IP addresses and other administration information. See Section 3.1.2.
- SSH/SFTP access to the Oracle Communications User Data Repository Network OAM&P XMI VIP as the “admusr” user.

NOTE: *All logins into the Oracle Communications User Data Repository NO servers are made via the External Management (XMI) VIP unless otherwise stated.*

- VPN access to the customer’s network is required if that is the only method to log into the OAM servers.
- Direct access to server IMI IP addresses from the user’s local workstation is preferable in the case of a Backout.

NOTE: *If direct access to the IMI IP addresses cannot be made available, then target server access can be made via a tandem connection through the Active Primary NO (i.e., An SSH connection is made to the Active Primary NO XMI first, then from the Active Primary NO, a 2nd SSH connection can be made to the target server’s IMI IP address).*

3.1.1 Application ISO Image File / Media

You must obtain a copy of the target release DIU ISO image file . This file is necessary to perform the upgrade. The Oracle Communications User Data Repository ISO image file will be in the following format:

Example: `UDR-15.1.0.0.0_115.36.0-x86_64-DIU.iso`

NOTE: *Actual number values may vary between releases.*

Prior to the execution of this upgrade procedure, it is assumed that the Oracle Communications User Data Repository DIU ISO image file has already been delivered to the customer’s premises. The DIU ISO image file must reside on the local workstation used to perform the upgrade, and any user performing the upgrade must have access to the ISO image file. If the user performing the upgrade is at a remote location, it is assumed the DIU ISO file is already available to them before starting the upgrade procedure.

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3.1.2 Logins, Passwords and Site Information

Obtain all the	Description	Recorded Value
Credentials	GUI Admin Username ¹	
	GUI Admin Password	
	Admusr Password ²	
	Root Password ³	
	Blades iLO Admin Username	
	Blades iLO Admin Password	
VPN Access Details	Customer VPN information (if needed)	
NO	Primary NOAM&P	
	DR NOAM&P	
	XMI VIP address ⁴	
	NO 1 XMI IP Address	
	NO 2 XMI IP Address	
SO	XMI VIP address	
	SO 1 XMI IP Address (Site 1)	
	SO 2 XMI IP Address (Site 1)	
	SOAM 1 XMI IP Address (Site 2)	
	SOAM 2 XMI IP Address (Site 2)	
	SO 2 iLO IP Address	
	MP 1 iLO IP Address	
	MP 2 iLO IP Address	
		
	MP(n) iLO IP Address (optional)	
Software	Source Release Number	
	Target Release Number	
	ISO Image (.iso) file name	

3.2 Pre-Upgrade Procedures

The pre-upgrade procedures shown in the following table have no effect on the live system.

Table 4 - Pre-Upgrade Overview

Procedure Number	Procedure Title	Elapsed Time (Hours:Minutes)	
		This Step	Cumulative

¹ Note: The user must have administrator privileges. This means the user belongs to the **admin** group in Group Administration.

² Note: This is the password for the **admusr** login on the servers. This is not the same login as the GUI Administrator. The admusr password is required if recovery procedures are needed. If the admusr password is not the same on all other servers, then all those servers' root passwords must also be recorded; use additional space at the bottom of this table.

³Note: This is the password for the **root** login on the servers. This is not the same login as the GUI Administrator. The root password is required if recovery procedures are needed. If the root password is not the same on all other servers, then all those servers' root passwords must also be recorded; use additional space at the bottom of this table.

⁴ Note: All logins into the NO servers are made via the External Management VIP unless otherwise stated.

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1	<i>Required</i> Materials Check	00:15	00:15
2	ISO Administration	*	*
Appendix B	Health Check Procedures (depends on number of servers)	0:10-1:15	00:25-01:30

***NOTE:** *ISO transfers to the target systems cannot be estimated since times will vary significantly depending on the number of systems and the speed of the network.*

The ISO transfers to the target systems should be performed prior to, outside of, the scheduled maintenance window. The user should schedule the required maintenance windows accordingly.

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3.2.1 Hardware Upgrade Preparation

There is no hardware preparation necessary when upgrading to release 15.1.0 since we are performing dual image upgrade from 15.0.4, 15.0.5, and 15.0.6 to 15.1.0 incremental upgrade. Hence, we do not need to prepare the dware. In case of Bare metal to cloud migration, we will only perform the health checkup.

3.2.2 Review Release Notes

Before starting the upgrade, review the Release Notes for the new Oracle Communications User Data Repository 15.1.0 release to understand the functional differences and possible traffic impacts of the upgrade. **Also, very important to check Oracle Communications UDR-PCRF compatibility before performing Major Upgrade since all versions are not compatible.** Release notes for this and all release are available at <https://docs.oracle.com>.

3.2.3 Required Materials Check

This procedure verifies that all required materials needed to perform an upgrade have been collected and recorded.

Procedure 1: Required Materials Check

Step	This procedure verifies that all required materials are present. Check off (✓)each step as it is completed. Boxes have been provided for this purpose under each step number.	
1. ☐	Verify all required materials are present.	Materials are listed in Section 3.1. Verify all required materials are present.
2. ☐	Verify all administration data needed during upgrade.	Double-check that all information in Section 3.1.2 is filled-in and accurate.
3. ☐	Contact Oracle CGBU Customer Care Center	Contact the My Oracle Support and inform them of plans to upgrade this system. See Error! Reference source not found. for these instructions.

3.2.4 Perform Health Check (Upgrade Preparation)

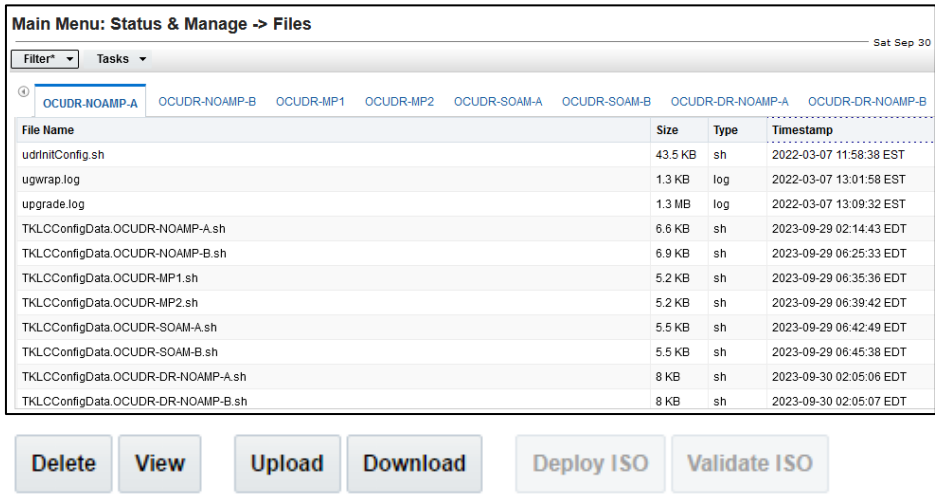
☐	This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the Oracle Communications User Data Repository network and servers. This may be executed multiple times but must also be executed at least once within the time frame of 24-36 hours prior to the start of the upgrade procedures. Execute Health Check procedures as specified in Appendix B.
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3.2.5 ISO Administration

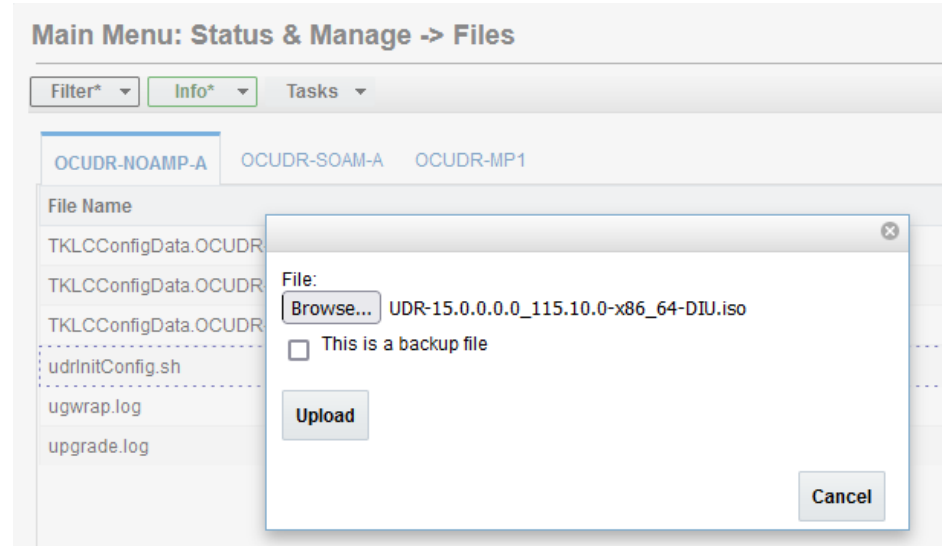
Note : This step is applicable only for OL8 based TPD server to OL8 based TPD server upgrade

Procedure 2: ISO Administration for Upgrades

Step	Procedure	Result
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .
2. 	Active NOAMP VIP: Upload ISO file to the Active NOAMP server 1) Select... Main Menu → Status & Manage → Files 2) Using the cursor, select the active NOAMP server from the list tabs. 3) Click on the “Upload” button.	
3. 	Active NOAMP VIP: 1) Click on the “Browse...” dialogue button located in the middle of the screen. 2) Select the Drive and directory location of the ISO file for the target release. Select the DIU ISO file and click on the “Open” dialogue button. 3) Click on the “Upload” dialogue button. NOTE 1: It is recommended to access the DIU ISO file for the target release from a local hard drive	

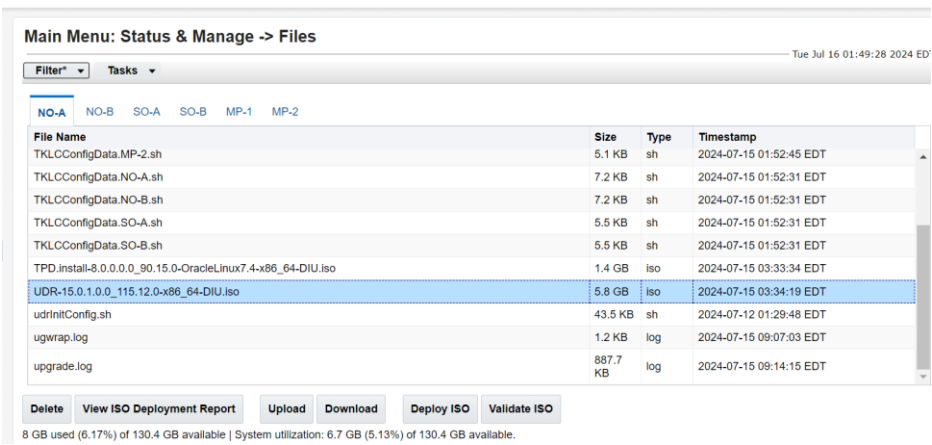
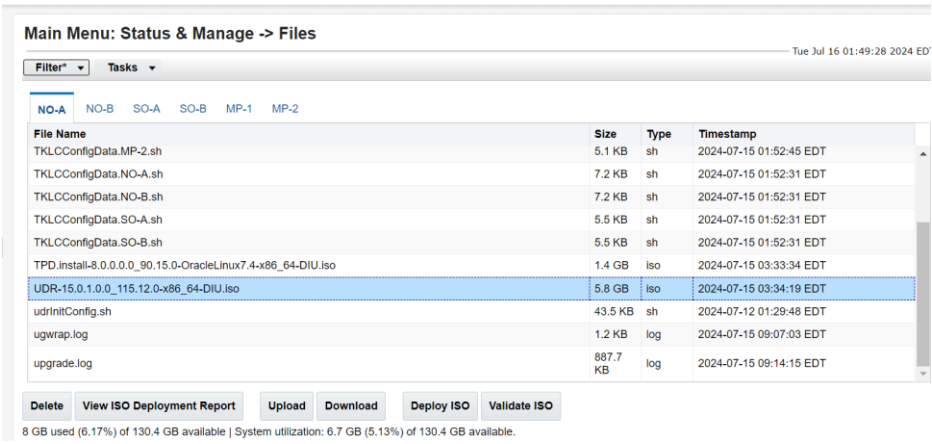
Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 2: ISO Administration for Upgrades

Step	Procedure	Result
	partition as opposed to a network or flash drive location. NOTE 2: Depending on network conditions, this upload may take an extended period of time (> 60 saccs.). NOTE 3: Alternatively, the DIU ISO file can be manually transferred to the “/var/TKLC/db/file mgmt” directory of the Active NOAMP server using SFTP. NOTE 4: The DIU ISO in the file management directory must have global read permission or the GUI ISO transfer will fail, with a security log indicating the lack of read permission. If you upload the file using the GUI, the ISO will have global read permission. If you have already transferred the DIU ISO to the NO without global read permission, you can log in as admusr and use “chmod 644 ” to give it read permission. Note: When scp files use “scp -p” command.	

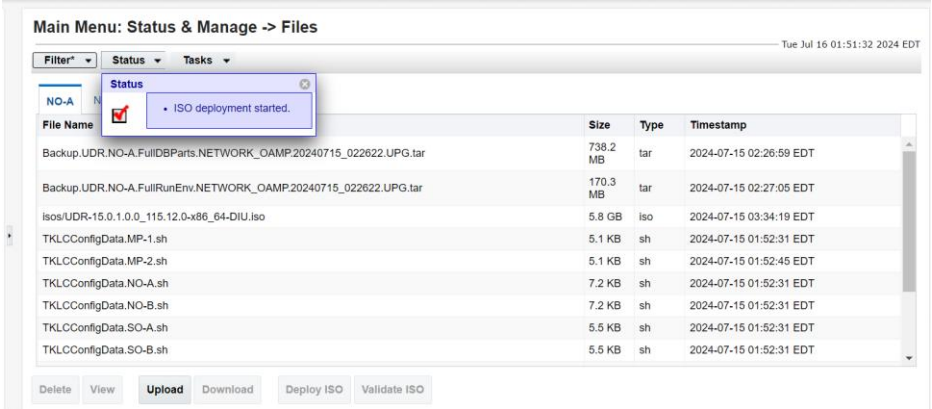
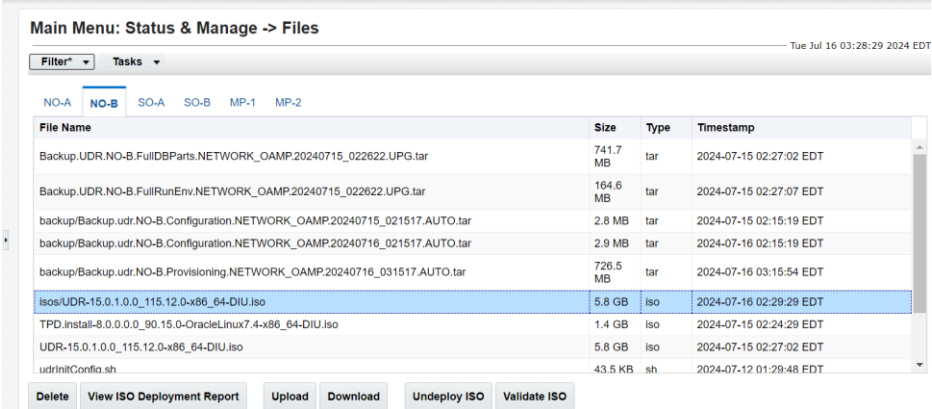
Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 2: ISO Administration for Upgrades

Step	Procedure	Result
4.	Active NOAMP VIP: Click the Timestamp link located on the top right of the right panel. A reverse-sorted list of files showing the newest files at the top displays. The ISO file uploaded in Step 3 of this procedure is at the top most position in the File Name column.	
5.	Active NOAMP VIP: UNDEPLOY all unneeded ISO images.	1. Select Status & Manage → Files from the left-side menu; the Files screen displays. 2. Select the DIU ISOs to be undeployed and click Undeploy ISO at the bottom of the table. 3. Click OK to confirm the ISO undeployment. 4. Verify that the ISO undeployment is successful. NOTE: The Tasks menu message box at the top of the Files page displays the status of the undeployment for each server. In addition, an ISO Deployment report can be viewed by selecting the DIU ISO and clicking View ISO Deployment Report.
6.	Active NOAMP VIP (GUI): Transfer ISO to all remaining servers via the GUI session. Select the <DIU ISO filename> and then click Deploy ISO. Click OK.	

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 2: ISO Administration for Upgrades

Step	Procedure	Result
7.	Active NOAMP VIP (GUI): This moves the DIU ISO file to the <code>isos</code> directory and starts the secure copy of the DIU ISO to each server in the system. A status window opens as well	
8.	Active NOAMP VIP (GUI): To view the status of the deployed ISO, select the file <code>isos/<ISO filename></code> and then click View ISO Deployment Report or click the Tasks dropdown. NOTE: This button displays when a deployed ISO is selected. All other times, it is the View button. To view the <code>isos</code> directory on each server that is deployed, select the server tabs near the top of the menu. As an optional check (after the ISO is deployed), can click Validate ISO to ensure it is valid.	 Main Menu: Status & Manage -> Files [View] Main Menu: Status & Manage -> Files [View] Tue Jul 16 03:29:38 2024 EDT Deployment report for UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso: Deployed on 6/6 servers. NO-A: Deployed NO-B: Deployed SO-A: Deployed SO-B: Deployed MP-1: Deployed MP-2: Deployed
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

3.2.6 Checking the Network Adapter Settings

Perform the following procedure to check the Network Adapter settings before upgrading UDR from 15.0.0 to 15.1.0

Note:

- This procedure is only applicable for VMware, not for OpenStack and KVM based systems.

- If the Network Adapter settings output is in ascending order, skip this procedure.
- The output may not always be in the ascending order. Perform the following

procedure to verify the output.

1. Run the following command to verify that the hexa decimal number shown in bold in the output is in ascending order.

```
[root@OCUDR-NOAMP-A admusr]# ls -l /sys/class/net
```

Output Example:

```
[root@OCUDR-NOAMP-A admusr]# ls -l /sys/class/net
```

```
total 0
```

```
lrwxrwxrwx 1 root root 0 Oct 31 14:50 eth0 -> ../../devices/pci0000:00/0000:00:11.0/0000:02:00.0/net/eth0
```

```
lrwxrwxrwx 1 root root 0 Oct 31 14:50 eth1 -> ../../devices/pci0000:00/0000:00:11.0/0000:02:01.0/net/eth1
```

```
lrwxrwxrwx 1 root root 0 Oct 31 14:50 eth2 -> ../../devices/pci0000:00/0000:00:11.0/0000:02:02.0/net/eth2
```

```
lrwxrwxrwx 1 root root 0 Oct 28 02:11 lo -> ../../devices/virtual/net/lo
```

```
[root@OCUDR-NOAMP-A admusr]#
```

2. To obtain the hexa decimal number in ascending order, do the following:

- a. Run the following command to verify the parameters

```
[root@OCUDR-NOAMP-A admusr]# lspci -v | grep Ethernet -A2
```

The following image displays the output of the command:

```
[root@OCUDR-NOAMP-A admusr]# lspci -v | grep Ethernet -A2
```

```
02:00.0 Ethernet controller: Intel Corporation 82545EM Gigabit Ethernet Controller (Copper) (rev 01)
```

```
DeviceName: Ethernet0
```

```
Subsystem: VMware PRO/1000 MT Single Port Adapter
```

```
Physical Slot: 32
```

```
--
```

```
02:01.0 Ethernet controller: Intel Corporation 82545EM Gigabit Ethernet Controller (Copper) (rev 01)
```

```
DeviceName: Ethernet1
```

```
Subsystem: VMware PRO/1000 MT Single Port Adapter
```

```
Physical Slot: 33
```

```
--
```

```
02:02.0 Ethernet controller: Intel Corporation 82545EM Gigabit Ethernet Controller (Copper) (rev 01)
```

```
DeviceName: Ethernet2
```

```
Subsystem: VMware PRO/1000 MT Single Port Adapter
```

```
Physical Slot: 34
```

```
[root@OCUDR-NOAMP-A admusr]#
```

3. After running the command, the user must shut down the VM, modify the parameters, and start the VM.
 - a. To modify the parameters, from the VMware GUI, navigate to VM, and Edit Settings, and then click Advanced Parameters.

Oracle Communications User Data Repository Software Upgrade Procedure

- b. Modify the pci slot number for the ascending order as shown in the output of the step 2
- c. Modify or add the configuration parameters in the Advanced Configuration Parameters as shown in the following output:

Note: The below output for reference purpose only.

Edit Settings | LABVDSR03IPFE1

Virtual Hardware

VM Options

Advanced Parameters

Advanced Configuration Parameters

Modify or add configuration parameters as needed for experimental features or as instructed by technical support. Empty values will be removed (supported on ESX 6.0 and later).

Attribute

Value

Edit Settings | LABVDSR03IPFE1

ethernet1.pciSlotNumber	1184
ethernet2.pciSlotNumber	192
ethernet3.pciSlotNumber	1216
ethernet4.pciSlotNumber	224
ethernet5.pciSlotNumber	256
vmci0.pciSlotNumber	33
vmotion.checkpointFBSize	4194304
monitor.phys_bits_used	40
softPowerOff	FALSE
ethernet0.pciSlotNumber	160

3.3 Order of Application Upgrade

The following list displays the order to upgrade the Servers (Primary and DR sites):

1. Site 2 NOAMPs (DR Spares)
2. Primary Standby NOAMP
3. Primary Active NOAMP
4. Site 1 SOAMs (Standby)
5. Site 1 SOAMs (Active)
6. Site 2 SOAMs (DR site – Spares)
7. Site 1 MPs (one at a time)
8. Site 2 MPs (DR site – one at a time)

Oracle Communications User Data Repository Software Upgrade Procedure

3.4 Upgrade Execution Overview for Virtual Machine Configurations

3.4.1 Primary NOAMP / DR NOAMP Execution Overview

The procedures shown in each table below are the estimated times for upgrading 2 NOAMPs and 2 DR NOAMPs. The primary NOAMPs are upgraded first, followed by the DR NOAMPs.

Procedure Number	Procedure Title	Elapsed Time (Hours: Minutes)	
		This Step	Cumulative
3	<i>Error! Reference source not found.</i>	00:05	00:05
4	<i>Error! Reference source not found.</i>	00:30	00:35
5	<i>Error! Reference source not found.</i>	01:00	01:35

Table 5 - DR NOAMP Upgrade Procedures for Virtual Machine Configurations

Procedure Number	Procedure Title	Elapsed Time (Hours: Minutes)	
		This Step	Cumulative
6	<i>Error! Reference source not found.</i>	01:00	01:00

Table 6 - Primary NOAMP Upgrade Procedures for Virtual Machine Configurations

***NOTE:** Times estimates are based on a small Database.

Oracle Communications User Data Repository Software Upgrade Procedure

3.4.2 SOAM Server Upgrade Execution Overview

The procedures shown in the following table are the estimated times for upgrading the two SOAM Servers. SOAMs should be upgraded one site at a time (site 1 followed by site 2).

Procedure Number	Procedure Title	Elapsed Time (Hours: Minutes)	
		This Step	Cumulative
7	<i>Error! Reference source not found.</i>	00:45	00:45

Table 7 - SOAM Upgrade Procedures for Virtual Machine Configurations

3.4.3 MP Server Upgrade Execution Overview

The procedures shown in the following tables are the estimated times for upgrading two MP Servers. MP Servers should be upgraded one site at a time (site 1 followed by site 2).

Procedure Number	Procedure Title	Elapsed Time (Hours: Minutes)	
		This Step	Cumulative
8	<i>Error! Reference source not found.</i>	00:25	00:25

Table 8 – MP Server Upgrade Procedures for Virtual Machine Configurations

3.5 Upgrade Acceptance Overview

Procedure Number	Procedure Title	Elapsed Time (Hours: Minutes)	
		This Step	Cumulative
15	<i>Error! Reference source not found.</i>	00:20	00:20

Table 9 – Upgrade Acceptance overview

Oracle Communications User Data Repository Software Upgrade Procedure

4. VM TO VM UPGRADE FROM UDR-15.0.0 TO UDR-15.1.0

VM to VM upgrade is performed using Dual Image Upgrade (DIU) procedure provided by the TPD.

OL8 to OL8 based TPD upgrade is performed using single hop upgrade procedure provided by TPD.

This procedure will upgrade the server from OL8 based TPD server to OL8 based TPD server.

Example: From UDR-15.0.X.0.0 to UDR-15.1.0.0.0

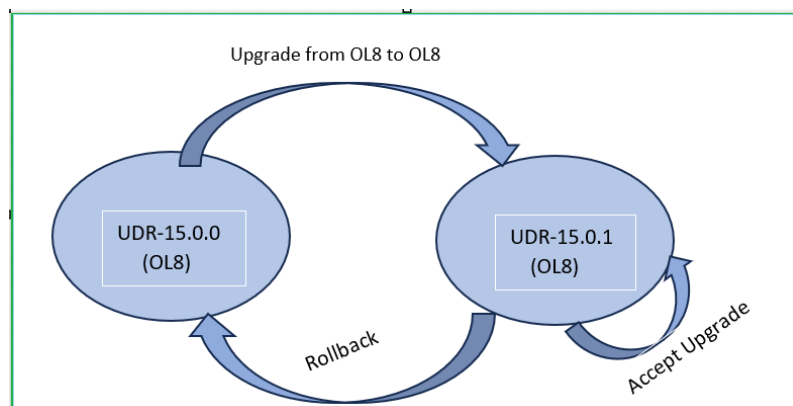


Figure 3: OL8 to OL8 upgrade diagram

4.1 Primary NOAMP / DR NOAMP Upgrade Execution

Open A Service Ticket at My Oracle Support (**Appendix I**) and inform them of your plans to upgrade this system prior to executing this upgrade.

Before upgrade, users must perform the system Health Check **Appendix B**.

This check ensures that the system to be upgraded is in an upgrade-ready state. Performing the system health check determines which alarms are present in the system and if upgrade can proceed with alarms.

**** WARNING ****

If there are servers in the system, which are not in Normal state, these servers should be brought to the Normal or the Application Disabled state before the upgrade process is started.

The sequence of upgrade is such that servers providing support services to other servers will be upgraded first.

**** WARNING ****

Please read the following notes on this procedure:

Procedure completion times shown here are estimates. Times may vary due to differences in database size, user experience, and user preparation.

Where possible, command response outputs are shown as accurately as possible. EXCEPTIONS are as follows:

Session banner information such as time and date.

System-specific configuration information such as hardware locations, IP addresses and hostnames.

ANY information marked with "XXXX" or "YYYY." Where appropriate, instructions are provided to determine what output should be expected in place of "XXXX or YYYY"

Aesthetic differences unrelated to functionality such as browser attributes: window size, colors, toolbars and button layouts.

After completing each step and at each point where data is recorded from the screen, the technician performing the upgrade must mark the provided Check Box.

For procedures which are executed multiple times, a mark can be made below the Check Box (in the same column) for

Oracle Communications User Data Repository Software Upgrade Procedure

each additional iteration of the step executed.

Retention of Captured data is required for as a future support reference this procedure is executed by someone other than Oracle’s Consulting Services.

4.1.1 Perform Health Check (Pre-Upgrade)

☐

This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the Oracle Communications User Data Repository network and servers. This may be executed multiple times but must also be executed at least once within the time frame of 24-36 hours prior to the start of a maintenance window. Execute Health Check procedures as specified in **Appendix B**.

4.1.2 Primary NOAMP / DR NOAMP Upgrade

The following procedures detail how to perform upgrades for Primary NOAMP and DR NOAMP Servers.

WARNING: The Database Audit stays disabled throughout the whole upgrade, until all of the SOAM sites are upgraded!

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

4.1.2.1 Remove Additional GUI Sessions

Note: Version mentioned in the images will be just example. That version should be specific to corresponding release.

Procedure 3: Remove Additional GUI Sessions

Step	Procedure	Result												
1 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .												
2. 	Active NOAMP VIP: Select... <u>Main Menu</u> →Administration →Access Control→Sessions ...as shown on the right.	Main Menu: Administration → Access Control → Sessions Sat Sep 30 03:51:37 2023 EDT <table><tr><th>Sess ID</th><th>Expiration Time</th><th>Login Time</th><th>User</th><th>Group</th><th>Remote IP</th></tr><tr><td>2</td><td>Sat Sep 30 05:51:35 2023 EDT</td><td>Sat Sep 30 02:02:12 2023 EDT</td><td>guiadmin</td><td>admin</td><td>10.69.110.163</td></tr></table>	Sess ID	Expiration Time	Login Time	User	Group	Remote IP	2	Sat Sep 30 05:51:35 2023 EDT	Sat Sep 30 02:02:12 2023 EDT	guiadmin	admin	10.69.110.163
Sess ID	Expiration Time	Login Time	User	Group	Remote IP									
2	Sat Sep 30 05:51:35 2023 EDT	Sat Sep 30 02:02:12 2023 EDT	guiadmin	admin	10.69.110.163									

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 3: Remove Additional GUI Sessions

Step	Procedure	Result												
3	Active NOAMP VIP: In the right panel, the user will be presented with the list of Active GUI sessions connected to the Active NOAMP server.	Main Menu: Administration -> Access Control -> Sessions Sat Sep 30 03:51:37 2023 EDT <table><tr><th>Sess ID</th><th>Expiration Time</th><th>Login Time</th><th>User</th><th>Group</th><th>Remote IP</th></tr><tr><td>2</td><td>Sat Sep 30 05:51:35 2023 EDT</td><td>Sat Sep 30 02:02:12 2023 EDT</td><td>guiadmin</td><td>admin</td><td>10.69.110.163</td></tr></table>	Sess ID	Expiration Time	Login Time	User	Group	Remote IP	2	Sat Sep 30 05:51:35 2023 EDT	Sat Sep 30 02:02:12 2023 EDT	guiadmin	admin	10.69.110.163
Sess ID	Expiration Time	Login Time	User	Group	Remote IP									
2	Sat Sep 30 05:51:35 2023 EDT	Sat Sep 30 02:02:12 2023 EDT	guiadmin	admin	10.69.110.163									
4	Active NOAMP VIP: The User ID and Remote IP address of each session will be displayed as seen on the right. Every attempt should be made to contact users not engaged in this Upgrade activity and request that they discontinue GUI access until the upgrade activity has completed.	Main Menu: Administration -> Access Control -> Sessions Sat Sep 30 03:51:37 2023 EDT <table><tr><th>Sess ID</th><th>Expiration Time</th><th>Login Time</th><th>User</th><th>Group</th><th>Remote IP</th></tr><tr><td>2</td><td>Sat Sep 30 05:51:35 2023 EDT</td><td>Sat Sep 30 02:02:12 2023 EDT</td><td>guiadmin</td><td>admin</td><td>10.69.110.163</td></tr></table>	Sess ID	Expiration Time	Login Time	User	Group	Remote IP	2	Sat Sep 30 05:51:35 2023 EDT	Sat Sep 30 02:02:12 2023 EDT	guiadmin	admin	10.69.110.163
Sess ID	Expiration Time	Login Time	User	Group	Remote IP									
2	Sat Sep 30 05:51:35 2023 EDT	Sat Sep 30 02:02:12 2023 EDT	guiadmin	admin	10.69.110.163									

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 3: Remove Additional GUI Sessions

Step	Procedure	Result										
5	Active NOAMP VIP: If unable to identify or contact the session owners, sessions not related to the upgrade activity may be selected and deleted as follows: 1) Select the session for deletion with the cursor. 2) In the bottom left of the right panel, click the “Delete” dialogue button. 3) In the pop-up window, click on the “OK” dialogue button.	Main Menu: Administration -> Access Control -> Sessions <table><tr><th>Sess ID</th><th>Expiration Time</th><th>Login Time</th><th>User</th><th>Group</th></tr><tr><td>2</td><td>Sat Sep 30 05:51:35 2023 EDT</td><td>Sat Sep 30 02:02:12 2023 EDT</td><td>guiadmin</td><td>admin</td></tr></table> Delete 10.75.180.10 Delete user session(s): 2? OKCancel NOTE: The Session screen prevents users from deleting the session which they are currently connected to. If attempting to do so by accident, a message may be received in the Banner area stating “Logout to delete your own session (id=xx)”.	Sess ID	Expiration Time	Login Time	User	Group	2	Sat Sep 30 05:51:35 2023 EDT	Sat Sep 30 02:02:12 2023 EDT	guiadmin	admin
Sess ID	Expiration Time	Login Time	User	Group								
2	Sat Sep 30 05:51:35 2023 EDT	Sat Sep 30 02:02:12 2023 EDT	guiadmin	admin								
6	Active NOAMP VIP: The user will receive a confirmation message in the Info tab indicating the session ID which was deleted.	Main Menu: Administration -> Access Control -> Sessions Info Info • Logout to delete your own session (id=2) Login Time Sat Sep 30 02:02:12 2023 EDT										
7	Active NOAMP VIP: Delete any additional GUI sessions as needed.	Repeat Steps Error! Reference source not found.-Error! Reference source not found. of this Procedure for each additional GUI session to be deleted.										
THIS PROCEDURE HAS BEEN COMPLETED												

Oracle Communications User Data Repository Software Upgrade Procedure

4.1.2.2 Full Database Backup (All Network Elements, All Servers)

This procedure is part of Software Upgrade Preparation and is used to conduct a full backup of the COMCOL run environment on every server, to be used in the event of a backout/rollback of the new software release.

Procedure 4: Full Database Backup

Step	Procedure	Result																																																																																																																																															
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																																																																																																																																															
2. 	Active NOAMP VIP: Select... Main Menu → Status & Manage → Database ...as shown on the right.	Main Menu: Status & Manage -> Database Sat Sep 30 03:32:35 2023 EDT Filter* Info* Tasks <table><thead><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th><th>SIG Repl Status</th><th>Repl Status</th><th>Repl Audit Status</th></tr></thead><tbody><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-A</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-B</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP4</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-A</td><td>Network OAM&P</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-B</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP2</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP3</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-A</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-B</td><td>Network OAM&P</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-A</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP1</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-B</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr></tbody></table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status	Site2_S2_NE_SO	OCUDR-DR-SOAM-A	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-MP4	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-SOAM-B	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-MP3	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_NO	OCUDR-DR-NOAMP-A	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-A	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable
Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-SOAM-A	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-MP4	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							
Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
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Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-MP3	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							
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Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							
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3. 	Active NOAMP VIP: Record the names of all servers.	Using the information provided in Section 3.1.2 (<i>Logins, Passwords and Site Information</i>) record the names of all servers. *The full backup on every server can be done from the NOAMP GUI.																																																																																																																																															
4. 	Active NOAMP VIP: Main Menu → Administration → Software Management → Upgrade ...as shown on the right. Backup the COMCOL run environment	Main Menu: Administration -> Software Management -> Upgrade Sat Sep 30 03:34:10 2023 EDT Filter* Tasks PR_NO_SG DR_NO_SG DR_SO_SG PR_SO_SG <table><thead><tr><th>Hostname</th><th>Upgrade State</th><th>OAM HA Role</th><th>Server Role</th><th>Function</th><th>Application Version</th><th>Start Time</th><th>Finish Time</th></tr><tr><th></th><th>Server Status</th><th>Appl HA Role</th><th>Network Element</th><th></th><th>Upgrade ISO</th><th>Status Message</th><th></th></tr></thead><tbody><tr><td>OCUDR-NOAMP-A</td><td>Backup Needed</td><td>Active</td><td>Network OAM&P</td><td>OAM&P</td><td>12.11.0.0-111.2.0</td><td></td><td></td></tr><tr><td></td><td>Err</td><td>N/A</td><td>Site1_S1_NE_NO</td><td></td><td></td><td></td><td></td></tr><tr><td>OCUDR-NOAMP-B</td><td>Backup Needed</td><td>Standby</td><td>Network OAM&P</td><td>OAM&P</td><td>12.11.0.0-111.2.0</td><td></td><td></td></tr><tr><td></td><td>Norm</td><td>N/A</td><td>Site1_S1_NE_NO</td><td></td><td></td><td></td><td></td></tr></tbody></table>	Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	Finish Time		Server Status	Appl HA Role	Network Element		Upgrade ISO	Status Message		OCUDR-NOAMP-A	Backup Needed	Active	Network OAM&P	OAM&P	12.11.0.0-111.2.0				Err	N/A	Site1_S1_NE_NO					OCUDR-NOAMP-B	Backup Needed	Standby	Network OAM&P	OAM&P	12.11.0.0-111.2.0				Norm	N/A	Site1_S1_NE_NO																																																																																																			
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	Err	N/A	Site1_S1_NE_NO																																																																																																																																														
OCUDR-NOAMP-B	Backup Needed	Standby	Network OAM&P	OAM&P	12.11.0.0-111.2.0																																																																																																																																												
	Norm	N/A	Site1_S1_NE_NO																																																																																																																																														

Procedure 4: Full Database Backup

5. Active NOAMP VIP:

Click **OK** to begin the backup.

Result

Main Menu: Administration -> Software Management -> Upgrade
Sat Sep 30 03:36:25 2023

Filter* ▼ Tasks ▼

PR_NO_SG

DR_NO_SG

DR_SO_SG

PR_SO_SG

Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	Finish Time
	Server Status	Appl HA Role	Network Element		Upgrade ISO	Status Message	
OCUDR-NOAMP-A	Backup Needed	Active	Network OAM&P	OAM&P	12.11.0.0.0-111.2.0		
	Err	N/A	Site1_S1_NE_NO				
OCUDR-NOAMP-B	Backup Needed	Standby	Network OAM&P	OAM&P	12.11.0.0.0-111.2.0		
	Norm	N/A	Site1_S1_NE_NO				

Backup

Backup All

Checkup

Checkup All

Upgrade Server

Accept

Report

Report All

Main Menu: Administration -> Software Management -> Upgrade [Backup]
Sat Sep 30 03:37:31 2023

Hostname	Action	Current application version
OCUDR-NOAMP-A	Back up	12.11.0.0.0-111.2.0
OCUDR-NOAMP-B	Back up	12.11.0.0.0-111.2.0

Full backup options

Database parts exclusion

☒ Exclude
 ☐ Do not exclude

Select "Exclude" to perform a full backup of the COMCOL run environment, excluding the database parts specified in the files in /usr/TKLC/appworks/etc/exclude_parts.d/.

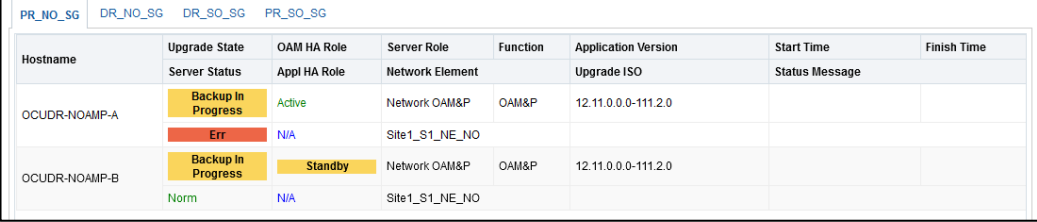
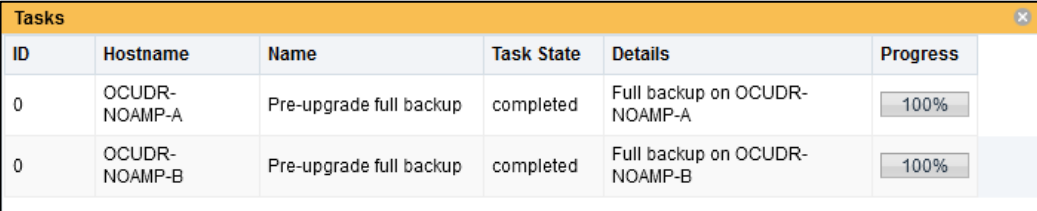
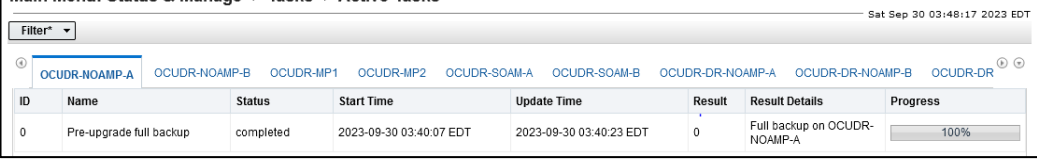
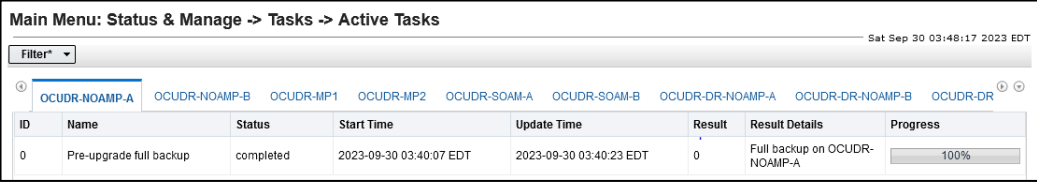
Select "Do not exclude" to perform a full backup of the COMCOL run environment without excluding any database parts. This will take longer and produce larger backup files in /var/TKLC/db/filemgmt.

Ok

Cancel

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 4: Full Database Backup

Step	Procedure	Result
6.	Active NOAMP VIP: The “Server Status” box indicates “Backup in Progress” The progress of the full backups can be viewed in the pulldown Tasks box, as well as from the Status & Manage->Tasks->Active Tasks screen. As each full backup completes, its task will update to indicate its success or failure. When all full backup tasks finish successfully, this procedure is complete.	  
7.	Active NOAMP VIP: <u>Main Menu</u> →Administration →Software Management →Upgrade Click the Tasks dropdown.	 When complete, Progress should display 100%.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

4.1.2.3 Upgrade DR NOAMP NE

The following procedures give details on how to perform upgrades for DR NOAMP server to various possible upgrade paths.

Procedure 5: Upgrade DR NOAMP NE

Step	Procedure	Result																																																																																																																																															
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																																																																																																																																															
2. 	Active NOAMP VIP: Select... Main Menu → Status & Manage → Database ...as shown on the right.	Main Menu: Status & Manage -> Database Filter* Info* Tasks <table><thead><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th><th>SIG Repl Status</th><th>Repl Status</th><th>Repl Audit Status</th></tr></thead><tbody><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-A</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-B</td><td>Network OAM&P</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-A</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP1</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-B</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-A</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-B</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP4</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-A</td><td>Network OAM&P</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-SOAM-B</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP2</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP3</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr></tbody></table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status	Site2_S2_NE_NO	OCUDR-DR-NOAMP-A	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-A	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-SOAM-A	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-MP4	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_NO	OCUDR-DR-SOAM-B	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-MP3	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable
Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status																																																																																																																																							
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Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
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Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							
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Site2_S2_NE_NO	OCUDR-DR-SOAM-B	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
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3. 	Record the name of the DR NOAMP Network Element in the space provided to the right.	Using the information provided in Section 3.1.2 (<i>Logins, Passwords and Site Information</i>) record the name of the DRNOAMP Network Element in the space provided below: DR NOAMP Network Element: _____																																																																																																																																															

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 5: Upgrade DR NOAMP NE

Step	Procedure	Result
4. 	Active NOAMP VIP: From the “Network Element” filter pull-down, select the NE name for the DR NOAMP.	Main Menu: Status & Manage -> Database Filter ▾ Info* ▾ Tasks ▾ Filter Scope: Network Element ▾ Server Group ▾ Reset Role: All ▾ Reset Display Filter: None ▾ = ▾ Reset Go Site1_S1_NE_SO OCUDR-SOAM-B System OAM Active
5. 	Active NOAMP VIP: Click on the “GO” dialogue button located on the left bottom of the filter bar.	Filter Scope: Site2_S2_NE_NO ▾ Server Group ▾ Reset Role: All ▾ Reset Display Filter: None ▾ = ▾ Reset Go

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 5: Upgrade DR NOAMP NE

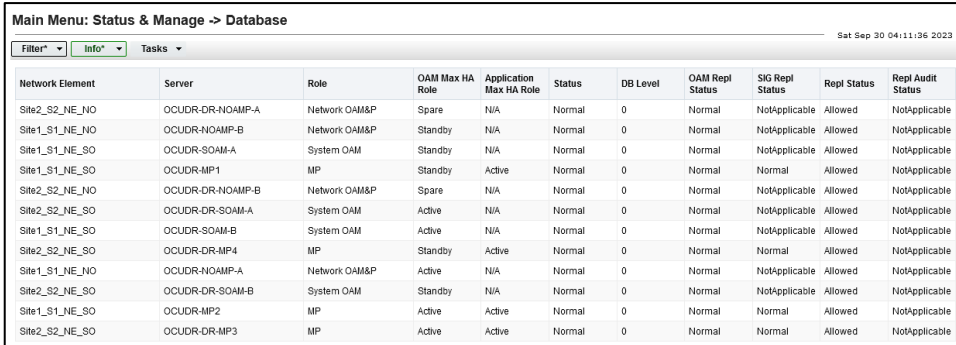
Step	Procedure	Result																																	
6. 	Active NOAMP VIP: The user should be presented with the list of servers associated with DR NOAMP Network Element.	Main Menu: Status & Manage -> Database (Filtered) Filter Info* Tasks <table><thead><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th><th>SIG Repl Status</th><th>Repl Status</th><th>Repl Audit Status</th></tr></thead><tbody><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-A</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-B</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr></tbody></table> Identify each “Server” and its associated “Role” and “HA Role”.	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status	Site2_S2_NE_NO	OCUDR-DR-NOAMP-A	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable
Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status																									
Site2_S2_NE_NO	OCUDR-DR-NOAMP-A	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																									
Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																									
7. 	Active NOAMP VIP: Record the “ Server ” names appropriately in the space provided to the right.	Identify the DR NOAMP “Server” names and record them in the space provided below: Spare NOAMP Server: _____ Spare NOAMP Server: _____																																	
 NOTE: For Step 8 of this Procedure, select one spare DR NOAMP. *** Verify the Databases are in sync using Appendix E before upgrading each spare server.																																			
8. 	Active NOAMP VIP: Upgrade Server for the first Spare DR NOAMP Server .	Upgrade Server for the first Spare DR NOAMP Server (identified in Step 7 of this Procedure) as specified in 1 OL8 to OL8 Upgrade .																																	
9. 	Active NOAMP VIP: Upgrade Server for the second Spare DR NOAMP Server .	Upgrade Server for the second Spare DR NOAMP Server (identified in Step 7 of this Procedure) as specified in 1 OL8 to OL8 Upgrade																																	
THIS PROCEDURE HAS BEEN COMPLETED																																			

Oracle Communications User Data Repository Software Upgrade Procedure

4.1.2.4 Upgrade Primary NOAMP NE

The following procedures detail how to perform upgrades for Primary NOAMP server to various possible upgrade paths.

Procedure 6: Upgrade Primary NOAMP NE

Step	Procedure	Result
1. ☐	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .
2. ☐	Active NOAMP VIP: Select... Main Menu → Status & Manage → Database ...as shown on the right.	 The screenshot shows the 'Main Menu: Status & Manage -> Database' interface. It includes a filter bar with 'Filter*' and 'Info*' dropdowns, and a 'Tasks' dropdown. Below is a table with columns: Network Element, Server, Role, OAM Max HA Role, Application Max HA Role, Status, DB Level, OAM Repl Status, SIG Repl Status, Repl Status, and Repl Audit Status. The table lists various network elements and their roles, including OAM&P, System OAM, and MP roles across different servers and sites.
3. ☐	Record the name of the Primary NOAMP Network Element in the space provided to the right.	Using the information provided in Section 3.1.2 (Logins, Passwords and Site Information) record the name of the Primary NOAMP Network Element in the space provided below: Primary NOAMP Network Element: _____

Procedure 6: Upgrade Primary NOAMP NE

Release 15.1.0.0.0

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 6: Upgrade Primary NOAMP NE

Step	Procedure	Result
5. 	Active NOAMP VIP: Click on the “GO” dialogue button located on the right end of the filter bar.	Main Menu: Status & Manage -> Database Filter Info* Tasks Filter Scope: Site1_S1_NE_NO Server Group Reset Role: All Reset Display Filter: None = Reset Go Site1_S1_NE_SO OCUDR-SOAM-B System OAM Active
Release 15.1.0.0.0		38 August 2026

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 6: Upgrade Primary NOAMP NE

Step	Procedure	Result																								
6. 	Active NOAMP VIP: The user should be presented with the list of servers associated with the Primary NOAMP Network Element. Identify each “Server” and its associated “Role” and “HA Role”.	Main Menu: Status & Manage -> Database (Filtered) Filter* Info* Tasks <table><thead><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th></tr></thead><tbody><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-A</td><td>Network OAM&P</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-B</td><td>Network OAM&P</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td></tr></tbody></table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal
Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status																			
Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal																			
Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal																			
7. 	Active NOAMP VIP: Record the “Server” names appropriately in the space provided to the right.	Identify the Primary NOAMP “Server” names and record them in the space provided below: Standby NOAMP: _____ Active NOAMP: _____																								
8.	Active NOAMP Server Executing workarounds for known Bugs	Refer to the OCUDR 15.1.0 Release Notes document for Known Customer Bugs, evaluate for applicability and execute the workarounds as mentioned. Note: If applicable then use workaround else skip the step.																								

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 6: Upgrade Primary NOAMP NE

Step	Procedure	Result
 NOTE: Step 9 is for the STANDBY NOAMP ONLY.		
9. ☐	Active NOAMP VIP: Upgrade Server for the Standby NOAMP Server .	Upgrade Server for the Standby NOAMP Server (identified in Step Error! Reference source not found. of this Procedure) as specified in Appendix C.2 OL8 to OL8 Upgrade
 !! WARNING !! STEP 9 MUST BE COMPLETED BEFORE CONTINUING ON TO STEP 10. *** Verify the Databases are in sync using Appendix E before upgrading the Active Server		
10. ☐	Active NOAMP VIP: Upgrade Server for the Active NOAMP Server .	Upgrade Server for the Active NOAMP Server (identified in Step 1Error! Reference source not found. of this Procedure) as specified in Appendix C.2 OL8 to OL8 Upgrade
THIS PROCEDURE HAS BEEN COMPLETED		

4.1.3 Perform Health Check (Post Primary NOAMP / DR NOAMP Upgrade)

☐	This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the Oracle Communications User Data Repository network and servers. Execute Health Check procedures as specified in Appendix B .
--------------------------	---

4.2 SOAM site Upgrade Execution

Open A Service Ticket at My Oracle Support (Appendix I) and inform them of your plans to upgrade this system prior to executing this upgrade. Before upgrade, users must perform the system Health Check Appendix B. This check ensures that the system to be upgraded is in an upgrade-ready state. Performing the system health check determines which alarms are present in the system and if upgrade can proceed with alarms. **** WARNING **** If there are servers in the system, which are not in Normal state, these servers should be brought to the Normal or the Application Disabled state before the upgrade process is started. The sequence of upgrade is such that servers providing support services to other servers will be upgraded first. **** WARNING **** Please read the following notes on this procedure: Procedure completion times shown here are estimates. Times may vary due to differences in database size, user experience, and user preparation. Where possible, command response outputs are shown as accurately as possible. EXCEPTIONS are as follows: Session banner information such as time and date. System-specific configuration information such as hardware locations, IP addresses and hostnames.

Oracle Communications User Data Repository Software Upgrade Procedure

ANY information marked with “XXXX” or “YYYY.” Where appropriate, instructions are provided to determine what output should be expected in place of “XXXX or YYYY”

Aesthetic differences unrelated to functionality such as browser attributes: window size, colors, toolbars and button layouts.

After completing each step and at each point where data is recorded from the screen, the technician performing the upgrade must mark the provided Check Box.

For procedures which are executed multiple times, a mark can be made below the Check Box (in the same column) for each additional iteration of the step executed.

Retention of Captured data is required for as a future support reference this procedure is executed by someone other than Oracle’s Consulting Services.

4.2.1 Perform Health Check (Pre-Upgrade)

☐	This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the Oracle Communications User Data Repository network and servers. This may be executed multiple times but must also be executed at least once within the time frame of 24-36 hours prior to the start of a maintenance window. Execute Health Check procedures as specified in Appendix B.
--------------------------	--

Oracle Communications User Data Repository Software Upgrade Procedure

4.2.2 SOAM Upgrade

The following procedure details how to upgrade Oracle Communications User Data Repository SOAMs.

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

4.2.2.1 Upgrade SOAM NE

Procedure 7: Error! Reference source not found.

Step	Procedure	Result																																																																																																																																															
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																																																																																																																																															
2. 	Active NOAMP VIP: Select... Main Menu → Status & Manage → Database ...as shown on the right.	Main Menu: Status & Manage -> Database Sat Sep 30 04:01:59 2023 Filter* Info* Tasks* <table><thead><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th><th>SIG Repl Status</th><th>Repl Status</th><th>Repl Audit Status</th></tr></thead><tbody><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-A</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-B</td><td>Network OAM&P</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-A</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP1</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-B</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-A</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-B</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP4</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-A</td><td>Network OAM&P</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-B</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP2</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP3</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr></tbody></table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status	Site2_S2_NE_NO	OCUDR-DR-NOAMP-A	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-A	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-SOAM-A	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-MP4	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-SOAM-B	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-MP3	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable
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3. 	Record the name of the SOAM NE in the space provided to the right.	Using the information provided in Section 3.1.2 (<i>Logins, Passwords and Site Information</i>) record the name of the SOAM Network Element in the space provided below: SOAM Network Element: _____																																																																																																																																															

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 7: Error! Reference source not found.

Step	Procedure	Result
4.	Active NOAMP VIP: From the “ Network Element ” filter pull-down, select the name for the SOAM NE .	Main Menu: Status & Manage -> Database Filter ▾ Info* ▾ Tasks ▾ Filter Scope: Network Element ▾ Server Group ▾ Reset Network Element Site1_S1_NE_NO Site1_S1_NE_SO Site2_S2_NE_NO Site2_S2_NE_SO None ▾ = ▾ Reset Go Site1_S1_NE_SO OCUDR-SOAM-B System OAM Active
5.	Active NOAMP VIP: Click on the “ GO ” dialogue button located on the left bottom of the filter bar.	Filter Scope: Site1_S1_NE_NO ▾ Server Group ▾ Reset Network Element Site1_S1_NE_NO Site1_S1_NE_SO Site2_S2_NE_NO Site2_S2_NE_SO None ▾ = ▾ Reset Go

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 7: Error! Reference source not found.

Step	Procedure	Result																																																							
6. 	Active NOAMP VIP: The user should be presented with the list of servers associated with the SOAM NE .	Main Menu: Status & Manage -> Database (Filtered) Filter* Info* Tasks <table><thead><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th><th>SIG Repl Status</th><th>Repl Status</th><th>Repl Audit Status</th></tr></thead><tbody><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-A</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-B</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP2</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP1</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr></tbody></table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status	Site1_S1_NE_SO	OCUDR-SOAM-A	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable
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7. 	Using the list of servers associated with the SOAM NE shown in the above Step... Record the Server names of the SOAMs associated with the SOAM Network Element .	Identify the SOAM “Server” names and record them in the space provided below: Standby SOAM: _____ Active SOAM: _____																																																							
8. 	Active NOAMP VIP:	Inspect KPI reports to verify traffic is at the expected condition. (There is no congestion and KPIs are consistent). Performance indicators are available on the Active NOAMP under Status & Manage → KPIs																																																							
9. 	Active NOAMP VIP: Upgrade Server for the Standby SOAM Server .	Upgrade Server for the Standby SOAM Server (<i>identified in Step 7 of this Procedure</i>) as specified in Appendix C.2 OL8 to OL8 Upgrade																																																							
!! WARNING !! STEP 9 MUST BE COMPLETED BEFORE CONTINUING ON TO STEP 10. *** Verify the Databases are in sync using Appendix E before preparing the upgrade																																																									
10. 	Active NOAMP VIP: Upgrade Server for the Active SOAM Server .	Upgrade Server for the Active SOAM Server (<i>identified in Step Error! Reference source not found. of this Procedure</i>) as specified in Appendix C.2 OL8 to OL8 Upgrade																																																							
THIS PROCEDURE HAS BEEN COMPLETED																																																									

Oracle Communications User Data Repository Software Upgrade Procedure

4.2.3 MP Upgrade

The following procedure details how to upgrade Oracle Communications User Data Repository MPs.

4.2.3.1 Upgrade MP NE

Procedure 8: Upgrade MP NE

Step	Procedure	Result																																																																																																																																															
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																																																																																																																																															
2. 	Active NOAMP VIP: Select... <u>Main Menu</u> → Status & Manage → Database ...as shown on the right.	Main Menu: Status & Manage -> Database Filter* Info* Tasks <table><thead><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th><th>SIG Repl Status</th><th>Repl Status</th><th>Rep Sta</th></tr></thead><tbody><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-A</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>No</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-B</td><td>Network OAM&P</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>No</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-A</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>No</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP1</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>No</td></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-B</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>No</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-A</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>No</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-B</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>No</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP4</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>No</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-A</td><td>Network OAM&P</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>No</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-B</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>No</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP2</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>No</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP3</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>No</td></tr></tbody></table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Rep Sta	Site2_S2_NE_NO	OCUDR-DR-NOAMP-A	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	No	Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	No	Site1_S1_NE_SO	OCUDR-SOAM-A	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	No	Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	No	Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	No	Site2_S2_NE_SO	OCUDR-DR-SOAM-A	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	No	Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	No	Site2_S2_NE_SO	OCUDR-DR-MP4	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	No	Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	No	Site2_S2_NE_SO	OCUDR-DR-SOAM-B	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	No	Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	No	Site2_S2_NE_SO	OCUDR-DR-MP3	MP	Active	Active	Normal	0	Normal	Normal	Allowed	No
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Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	No																																																																																																																																							
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Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	No																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-MP4	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	No																																																																																																																																							
Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	No																																																																																																																																							
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Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	No																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-MP3	MP	Active	Active	Normal	0	Normal	Normal	Allowed	No																																																																																																																																							
3. 	Record the name of the SOAM NE in the space provided to the right.	Using the information provided in Section 3.1.2 (<i>Logins, Passwords and Site Information</i>) record the name of the SOAM Network Element in the space provided below: SOAM Network Element: _____																																																																																																																																															

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 8: Upgrade MP NE

Step	Procedure	Result
4.	Active NOAMP VIP: From the “Network Element” filter pull-down, select the name for the SOAMNE.	Main Menu: Status & Manage -> Database Filter Info* Tasks Filter Scope: Network Element Server Group Reset Network Element Site1_S1_NE_NO Site1_S1_NE_SO Site2_S2_NE_NO Site2_S2_NE_SO None = Reset Go Site1_S1_NE_SO OCUDR-SOAM-B System OAM Active
5.	Active NOAMP VIP: Click on the “GO” dialogue button located on the left bottom of the filter bar.	Filter Scope: Site1_S1_NE_NO Server Group Reset Network Element Site1_S1_NE_NO Site1_S1_NE_SO Site2_S2_NE_NO Site2_S2_NE_SO None = Reset Go

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 8: Upgrade MP NE

Step	Procedure	Result																																																							
6. 	Active NOAMP VIP: The user should be presented with the list of MP servers associated with the SOAM NE.	Main Menu: Status & Manage -> Database (Filtered) Filter* Info* Tasks <table><thead><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th><th>SIG Repl Status</th><th>Repl Status</th><th>Repl Au Status</th></tr></thead><tbody><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-A</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-B</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP2</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP1</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr></tbody></table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Au Status	Site1_S1_NE_SO	OCUDR-SOAM-A	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable
Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Au Status																																															
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Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																															
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Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																															
7. 	Using the list of servers associated with the SOAM NE shown in the above Step... Record the Server names of the MPs associated with the SOAM Network Element.	Identify the MP “Server” names and record them in the space provided below: MP1: MP3: MP2: MP4:																																																							
8. 	Upgrade MP Servers	In a multi-active MP cluster, all the MPs are Active; there are no Standby MPs. The effect on the Diameter network traffic must be considered since any MP being upgraded will not be handling live traffic. Oracle Communications User Data Repository shall support upgrades while the Provisioning and Signaling traffic is running at 20% of the rated TPS.																																																							
9. 	Active NOAMP VIP: Upgrade server for the first MP server to be upgraded (start with the MP from the standby SOAM group)	Upgrade Server for the MP Servers (identified in Step Error! Reference source not found. of this Procedure) as specified in Appendix C.2 OL8 to OL8 Upgrade Note – After selecting the “upgrade server” button, the connections for that MP will automatically be taken down and traffic will be diverted to the active MP.																																																							

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 8: Upgrade MP NE

Step	Procedure	Result
1. ☐	For low capacity Configurations: Record the server name of the MP that was upgraded from the standby SOAM group. Repeat steps 9 -11 for the MP server at the active SOAM group. For Normal Capacity C-Class Configuration, Record the Server names of the 2 MPs that were upgraded from the standby SOAM Group. Repeat steps 10-11 for the MPs.	“Check off” the associated Check Box as Steps 9- 10 are completed for each MP. ☐ MP1: _____ ☐ MP2: _____ ☐ MP3: _____ ☐ MP4: _____
THIS PROCEDURE HAS BEEN COMPLETED		

4.2.4 Perform Health Check (Post SOAM Upgrade)

☐	This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the Oracle Communications User Data Repository network and servers. Execute Health Check procedures as specified in Appendix B.
--------------------------	--

4.3 Accept/Backout upgrade of VM to VM upgrade

Please use [Appendix E](#) to accept the upgrade.

	NOTE: Once the upgrade is accepted for a server, that server will not be allowed to backout to previous release from which the upgrade was done
---	---

Please use chapter 8 - **Upgrading a Single Server** (OL8 to OL8 Upgrade)

Step	Procedure	Result
1.	Identify NOAMP IP Address	Identify IP Address of the single NOAMP server to be upgraded.

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
2.	Server IMI IP (SSH): SSH to server and login as root user	Use your SSH client to connect to the server (ex. ssh, putty): <pre>ssh<server address> login as: admusr password: <enter password> Switch to root su - password: <enter password></pre>
3.	Copy OL8.x Application DIU iso to "/var/TKLC/upgrade" and change the permission and then mount it in "/mnt/upgrade/" mount point	<pre># chmod 777 /var/TKLC/upgrade/UDR-15.0.0.0.0_115.12.0-x86_64-DIU.iso # sudo mount /var/TKLC/upgrade/ UDR-15.0.0.0.0_115.12.0-x86_64-DIU.iso /mnt/upgrade -o loop</pre> Note: Please download DIU ISO from mos and upload to server at filemgmt area using ISO Administration and then copy to path: /var/TKLC/upgrade on server to upgrade

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
4.	Install and then apply upgrade	<pre># alarmMgr --clear 32509;alarmMgr --clear 32500 # /mnt/upgrade/upgrade/diUpgrade --install --ignoreDevCheck -debug Output: Migrating 152 directories Migrating 845 files Migrating 1 symlinks Image install complete ##### # INSTALL COMPLETE # ##### Transitioning from 'Installing Upgrade' to 'Ready to Apply Upgrade' [root@OCUDR-DR-NOAMP-A filemgmt]#</pre> <pre># alarmMgr --clear 32509;alarmMgr --clear 32500 # /var/TKLC/backout/diUpgrade --apply --ignoreDevCheck -debug Output: [root@OCUDR-DR-NOAMP-A filemgmt]# /var/TKLC/backout/diUpgrade --apply --ignoreDevCheck -debug Resuming from state STATE_READY_TO_APPLY Transitioning from 'Ready to Apply Upgrade' to 'Applying Upgrade' ##### # APPLY INITIATED # ##### APPLY START TIME: Sat Sep 30 07:11:24 2023 EDT (11:11:24 UTC) Validating image pre-apply /mnt/upgrade/images/plat_root.gz /mnt/upgrade/images/plat_usr.gz /mnt/upgrade/images/plat_var.gz /mnt/upgrade/images/plat_var_tklic.gz Migrating 1 symlinks Enabling service upgrade... Converting from MBR to GPT Updating bootloader... Add md uuid to grub... Unmounting images... Performing reboot... Inhibiting upgrade services... Allowing upgrade services... [root@OCUDR-DR-NOAMP-A filemgmt]# login as: admusr admusr@10.75.180.18's password: Last login: Sat Sep 30 06:44:19 2023 from 10.69.110.163 OCUDR VM from OVA file ===== This system has been upgraded but the upgrade has not yet been accepted or rejected. Please accept or reject the upgrade soon. ===== [admusr@ocudr-dr-noamp-a ~]\$</pre> Note: Server reboots after 'apply upgrade' finishes.

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
5.	Accept upgrade	Before accepting, please make sure 'Upgrade Applied' state is shown, use below command to show the status: <pre># /var/TKLC/backout/diUpgrade -status</pre> Output: <pre>[root@ocudr-dr-noamp-a admusr]# /var/TKLC/backout/diUpgrade --status State: Upgrade Applied Status Messages: - Performing early checks - Downloading upgrade data - Verifying image - Performing image pre-install - Configuring images - Identifying resources - Reserving image storage - Installing image - Performing image post-install - Verifying configuration sanity - Image install complete - Validating image pre-apply - Performing image pre-apply - Applying image - Performing configuration export - Performing image post-apply - Image Apply Complete [root@ocudr-dr-noamp-a admusr]#</pre> Note: If we don't need to proceed further upgrade then we can reject the upgrade at this stage, using below step: <pre># /var/TKLC/backout/diUpgrade -reject</pre> Skip the above step if we want to continue upgrade <pre># /var/TKLC/backout/diUpgrade --accept</pre> Output: <pre>[root@ocudr-dr-noamp-a admusr]# /var/TKLC/backout/diUpgrade --accept Resuming from state STATE_UPGRADE_APPLIED Transitioning from 'Upgrade Applied' to 'Accepting Upgrade' Enabling service rebootcheck... ##### # ACCEPT INITIATED # ##### ACCEPT START TIME: Sat Sep 30 07:21:23 2023 EDT (11:21:23 UTC) Validating image pre-accept Performing image post-accept Running postAccept() for DIUpgrade::Policy::P20TPD upgrade policy... Running postAccept() for DIUpgrade::Policy::P36APPpworks upgrade policy... Running postAccept() for DIUpgrade::Policy::P38APPawpcommon upgrade policy... Running postAccept() for DIUpgrade::Policy::P39APPdpi upgrade policy... Running postAccept() for DIUpgrade::Policy::P42APPcomagent upgrade policy... Running postAccept() for DIUpgrade::Policy::P43APPccl upgrade policy... Running postAccept() for DIUpgrade::Policy::P50APPpudr upgrade policy... Creating alarm script: /tmp/vu3svF51Jl ##### # ACCEPT COMPLETE # ##### Check is rebootcheck is enabled ... Disabling service rebootcheck... Transitioning from 'Accepting Upgrade' to 'No Upgrade Available' Inhibiting upgrade services... Allowing upgrade services... Cleaning backout directory. [root@ocudr-dr-noamp-a admusr]#</pre>
Release	15.1.0.0.0	51 August 2026

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
6	Identify SOAM IP Address	Identify IP Address of the Single SOAM Server to be upgraded.
7	Upgrade SOAM Server	Repeat steps 2 through 5 for the SOAM Server
8	Identify MP IP Address	Identify IP Address of the Single MP Server to be upgraded
9	Upgrade MP Server	Repeat steps 2 through 5 for the MP Server
THIS PROCEDURE HAS BEEN COMPLETED		

Recovery Procedures for backout

Oracle Communications User Data Repository Software Upgrade Procedure

5. SINGLE SERVER UPGRADE

A 1-RMS server configuration is used for customer lab setup and for virtualization demonstration only. This configuration does not support HA and is not intended for production network. This One Server Lab RMS shall support the ability to perform and upgrade which allows all configuration data and database records to be carried forward to the next release.

5.1 Upgrading a Single Server (OL8 to OL8 Upgrade)

Step	Procedure	Result
1.	Identify NOAMP IP Address	Identify IP Address of the single NOAMP server to be upgraded.
2.	Server IMI IP (SSH): SSH to server and login as root user	Use your SSH client to connect to the server (ex. ssh, putty): <pre>ssh<server address> login as: admusr password: <enter password> Switch to root su - password: <enter password></pre>
3.	Copy OL8.x Application DIU iso to "/var/TKLC/upgrade" and change the permission and then mount it in "/mnt/upgrade/" mount point	<pre># chmod 777 /var/TKLC/upgrade/UDR-15.0.0.0.0_115.12.0-x86_64-DIU.iso # sudo mount /var/TKLC/upgrade/ UDR-15.0.0.0.0_115.12.0-x86_64-DIU.iso /mnt/upgrade -o loop</pre> Note: Please download DIU ISO from mos and upload to server at filemgmt area using ISO Administration and then copy to path: /var/TKLC/upgrade on server to upgrade

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
4.	Install and then apply upgrade	<pre># alarmMgr --clear 32509;alarmMgr --clear 32500 # /mnt/upgrade/upgrade/diUpgrade --install --ignoreDevCheck -debug Output: Migrating 152 directories Migrating 845 files Migrating 1 symlinks Image install complete ##### # INSTALL COMPLETE # ##### Transitioning from 'Installing Upgrade' to 'Ready to Apply Upgrade' [root@OCUDR-DR-NOAMP-A filemgmt]#</pre> <pre># alarmMgr --clear 32509;alarmMgr --clear 32500 # /var/TKLC/backout/diUpgrade --apply --ignoreDevCheck -debug Output: [root@OCUDR-DR-NOAMP-A filemgmt]# /var/TKLC/backout/diUpgrade --apply --ignoreDevCheck -debug Resuming from state STATE_READY_TO_APPLY Transitioning from 'Ready to Apply Upgrade' to 'Applying Upgrade' ##### # APPLY INITIATED # ##### APPLY START TIME: Sat Sep 30 07:11:24 2023 EDT (11:11:24 UTC) Validating image pre-apply /mnt/upgrade/images/plat_root.gz /mnt/upgrade/images/plat_usr.gz /mnt/upgrade/images/plat_var.gz /mnt/upgrade/images/plat_var_tklic.gz Migrating 1 symlinks Enabling service upgrade... Converting from MBR to GPT Updating bootloader... Add md uuid to grub... Unmounting images... Performing reboot... Inhibiting upgrade services... Allowing upgrade services... [root@OCUDR-DR-NOAMP-A filemgmt]# login as: admusr admusr@10.75.180.18's password: Last login: Sat Sep 30 06:44:19 2023 from 10.69.110.163 OCUDR VM from OVA file ===== This system has been upgraded but the upgrade has not yet been accepted or rejected. Please accept or reject the upgrade soon. ===== [admusr@ocudr-dr-noamp-a ~]\$</pre> Note: Server reboots after 'apply upgrade' finishes.

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
5.	Accept upgrade	Before accepting, please make sure 'Upgrade Applied' state is shown, use below command to show the status: <pre># /var/TKLC/backout/diUpgrade -status</pre> Output: <pre>[root@ocudr-dr-noamp-a admusr]# /var/TKLC/backout/diUpgrade --status State: Upgrade Applied Status Messages: - Performing early checks - Downloading upgrade data - Verifying image - Performing image pre-install - Configuring images - Identifying resources - Reserving image storage - Installing image - Performing image post-install - Verifying configuration sanity - Image install complete - Validating image pre-apply - Performing image pre-apply - Applying image - Performing configuration export - Performing image post-apply - Image Apply Complete [root@ocudr-dr-noamp-a admusr]#</pre> Note: If we don't need to proceed further upgrade then we can reject the upgrade at this stage, using below step: <pre># /var/TKLC/backout/diUpgrade -reject</pre> Skip the above step if we want to continue upgrade <pre># /var/TKLC/backout/diUpgrade --accept</pre> Output: <pre>[root@ocudr-dr-noamp-a admusr]# /var/TKLC/backout/diUpgrade --accept Resuming from state STATE_UPGRADE_APPLIED Transitioning from 'Upgrade Applied' to 'Accepting Upgrade' Enabling service rebootcheck... ##### # ACCEPT INITIATED # ##### ACCEPT START TIME: Sat Sep 30 07:21:23 2023 EDT (11:21:23 UTC) Validating image pre-accept Performing image post-accept Running postAccept() for DIUpgrade::Policy::P20TPD upgrade policy... Running postAccept() for DIUpgrade::Policy::P36APPpworks upgrade policy... Running postAccept() for DIUpgrade::Policy::P38APPawpcommon upgrade policy... Running postAccept() for DIUpgrade::Policy::P39APPdpi upgrade policy... Running postAccept() for DIUpgrade::Policy::P42APPcomagent upgrade policy... Running postAccept() for DIUpgrade::Policy::P43APPccl upgrade policy... Running postAccept() for DIUpgrade::Policy::P50APPpudr upgrade policy... Creating alarm script: /tmp/vu3svF51Jl ##### # ACCEPT COMPLETE # ##### Check is rebootcheck is enabled ... Disabling service rebootcheck... Transitioning from 'Accepting Upgrade' to 'No Upgrade Available' Inhibiting upgrade services... Allowing upgrade services... Cleaning backout directory. [root@ocudr-dr-noamp-a admusr]#</pre>
Release	15.1.0.0.0	55 August 2026

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
6	Identify SOAM IP Address	Identify IP Address of the Single SOAM Server to be upgraded.
7	Upgrade SOAM Server	Repeat steps 2 through 5 for the SOAM Server
8	Identify MP IP Address	Identify IP Address of the Single MP Server to be upgraded
9	Upgrade MP Server	Repeat steps 2 through 5 for the MP Server
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

6. RECOVERY PROCEDURES

Upgrade procedure recovery issues should be directed to the My Oracle Support ([Appendix I](#)). Persons performing the upgrade should be familiar with these documents.

Recovery procedures are covered under the Disaster Recovery Guide. Execute this section only if there is a problem and it is desired to revert back to the pre-upgrade version of the software.



!! WARNING !!

Do not attempt to perform these backout procedures without first contacting the My Oracle Support. Refer to [Appendix I](#).



!! WARNING !!

Backout procedures will cause traffic loss!



NOTES:

These recovery procedures are provided for the Backout of an Upgrade ONLY! (i.e., for the Backout from a failed target release to the previously installed release).

Backout of an initial installation is not supported!

6.1 Order of Backout

The following list displays the order to backout the Servers (Primary and DR sites):

1. Site 1 MPs
2. Site 2 MPs (DR site)
3. Site 1 SOAMs (Active/Standby)
4. Site 2 SOAMs (DR site)
5. DR NOAMPs (Spares)
6. Primary Standby NOAMP
7. Primary Active NOAMP

Oracle Communications User Data Repository Software Upgrade Procedure

6.2 Backout Setup

Identify IP addresses of all servers that need to be backed out.

- 1. Select **Administration → Software Management → Upgrade**
- 2. Based on the “Application Version” Column, identify all the hostnames that need to be backed out.
- 3. Select **Configuration → Servers**
- 4. Identify the IMI IP addresses of all the hostnames identified in step 2.
These are required to access the server when performing the backout.

The reason to execute a backout has a direct impact on any additional backout preparation that must be done. The Backout procedure will cause traffic loss.

NOTE: Verify that the two backup archive files created using the procedure in Error! Reference source not found. Error! Reference source not found. are present on every server that is to be backed-out.

These archive files are located in the /var/TKLC/db/filemgmt directory and have different filenames than other database backup files.

The filenames will have the format:

- Backup.<application>.<server>.FullDBParts.<role>.<date_time>.UPG.tar.bz2
- Backup.<application>.<server>.FullRunEnv.<role>.<date_time>.UPG.tar.bz2

6.3 Backout of SOAM / MP

Procedure 9: Backout of SOAM / MP

Step	Procedure	Result										
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .										
2. 	Active NOAMP VIP: Select... Main Menu → Status & Manage → Network Elements ...as shown on the right.	Main Menu: Status & Manage -> Network Elements Filter* ▾ <table><tr><th>Network Element Name</th><th>Customer Router Monitoring</th></tr><tr><td>Site1_S1_NE_NO</td><td>Disabled</td></tr><tr><td>Site1_S1_NE_SO</td><td>Disabled</td></tr><tr><td>Site2_S2_NE_NO</td><td>Disabled</td></tr><tr><td>Site2_S2_NE_SO</td><td>Disabled</td></tr></table>	Network Element Name	Customer Router Monitoring	Site1_S1_NE_NO	Disabled	Site1_S1_NE_SO	Disabled	Site2_S2_NE_NO	Disabled	Site2_S2_NE_SO	Disabled
Network Element Name	Customer Router Monitoring											
Site1_S1_NE_NO	Disabled											
Site1_S1_NE_SO	Disabled											
Site2_S2_NE_NO	Disabled											
Site2_S2_NE_SO	Disabled											
3. 	Record the name of the SOAM Network Element to be downgraded (backed out)	Record the name of the SOAM Network Element which will be “backed out” SOAM Network Element: _____										

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 9: Backout of SOAM / MP

Step	Procedure	Result																																																																																											
4.	Active NOAMP VIP: Select... Main Menu → Status & Manage → Server ...as shown on the right.	Main Menu: Status & Manage -> Server Filter* <table><thead><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr></thead><tbody><tr><td>OCUDR-DR-MP3</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-MP4</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-A</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-A</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-B</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP1</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP2</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-A</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-B</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-A</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-B</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></tbody></table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm	OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm	OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																																																																							
OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm																																																																																							
OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm																																																																																							
OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm																																																																																							
OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm																																																																																							
OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																																																							
OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																																																							
OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm																																																																																							
OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm																																																																																							
OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm																																																																																							
OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm																																																																																							
OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																																																							
OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																																																							
5.	Active NOAMP VIP: 1) From the Status & Manage→ Server filter pull-down, select the name for the SOAM NE. 2) Click on the “GO” dialogue button located on the right end of the filter bar	Filter Scope: Site1_S1_NE_SO Server Group Reset Display Filter: None = Reset Go																																																																																											
6.	Active NOAMP VIP: The user should be presented with the list of servers associated with the SOAM NE. Identify each “Server Hostname” and its associated “Reporting Status” and “Appl State”.	Main Menu: Status & Manage -> Server (Filtered) Filter <table><thead><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr></thead><tbody><tr><td>OCUDR-MP1</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP2</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-A</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-B</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></tbody></table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																								
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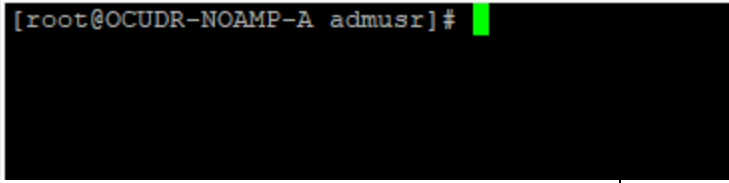
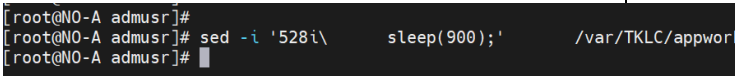
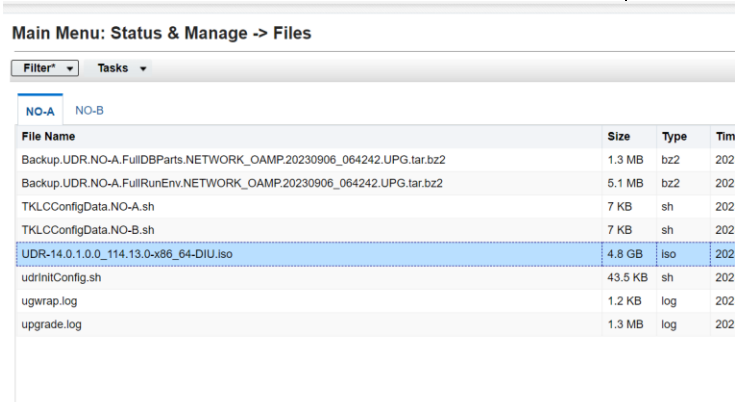
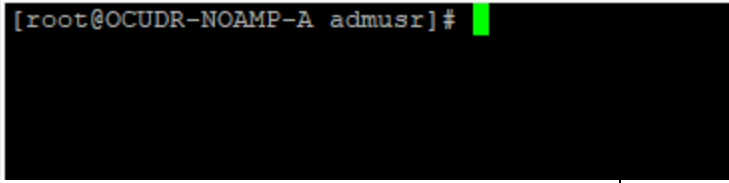
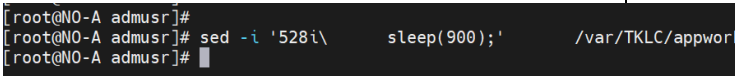
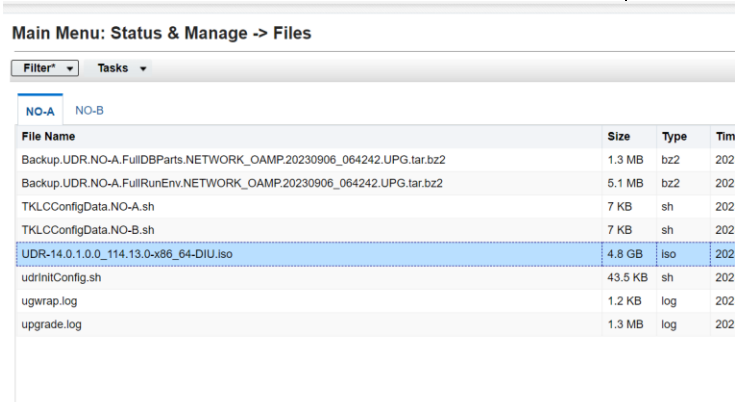
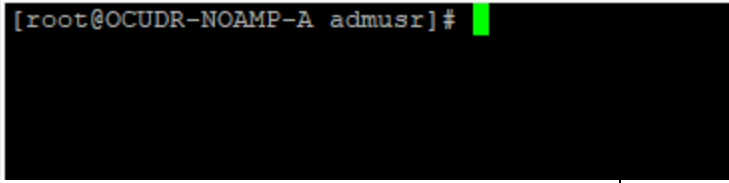
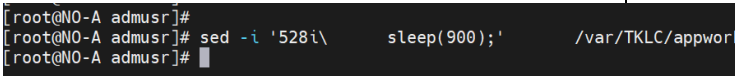
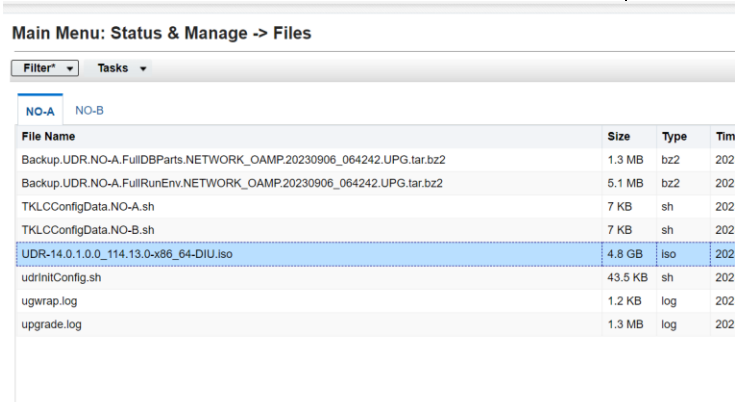
Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 9: Backout of SOAM / MP

Step	Procedure	Result
7. 	Using the list of servers associated with the SOAM NE shown in the above Step... Record the Server names of the MPs associated with the SOAM NE.	Identify the SOAM “Server” names and record them in the space provided below: Standby SOAM: _____ Active SOAM: _____ MP1: _____ MP3: _____ MP2: _____ MP4: _____

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 9: Backout of SOAM / MP

Step	Procedure	Result															
8.	Active NOAMP VIP: Referencing the list of servers recorded in Step7 ,execute C.1 for the MP1 Server .	Backout the target release for the MP1 Server as specified in C.1 (OL8 To OL8 Upgrade Appendix C.2: OL8 to OL8 Upgrade This procedure explains the steps of upgrading OL8 based TPD server to OL8 based TPD server Procedure 12: Upgrade Server <table><tr><th>Step</th><th>Procedure</th><th>Result</th></tr><tr><td>1.</td><td>Login to console of active server</td><td>Note1 : Vgroot should have 24GB free space to proceed Note 2: if you observe any alarm related to disk space to that volume to clear the alarm If enough memoy is not available to handle both above with required memory with steps mentioned in Append Access the server using ssh and switch to root: <code>#sudo su -</code> </td></tr><tr><td>2.</td><td>Run the below command in CLI “sed -i '528i\ sleep(900);' /var/TKLC/appwork s/services/SvrUpgr ade.php”</td><td></td></tr><tr><td>3.</td><td>Copy the DIU ISO to the filemgmt And change the file permission</td><td><code># cp source of DIU-ISO /var/TKLC/db/fil 15.0.1.0.0_115.12.0-x86_64-DIU.iso</code> <code># chmod 777 /var/TKLC/db/filemgmt/UDR-1 x86_64-DIU.iso</code></td></tr><tr><td>4.</td><td>Then Deploy DIU iso from Active UDR GUI</td><td></td></tr></table>	Step	Procedure	Result	1.	Login to console of active server	Note1 : Vgroot should have 24GB free space to proceed Note 2: if you observe any alarm related to disk space to that volume to clear the alarm If enough memoy is not available to handle both above with required memory with steps mentioned in Append Access the server using ssh and switch to root: <code>#sudo su -</code> 	2.	Run the below command in CLI “sed -i '528i\ sleep(900);' /var/TKLC/appwork s/services/SvrUpgr ade.php”		3.	Copy the DIU ISO to the filemgmt And change the file permission	<code># cp source of DIU-ISO /var/TKLC/db/fil 15.0.1.0.0_115.12.0-x86_64-DIU.iso</code> <code># chmod 777 /var/TKLC/db/filemgmt/UDR-1 x86_64-DIU.iso</code>	4.	Then Deploy DIU iso from Active UDR GUI	
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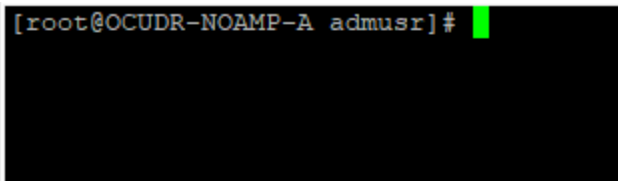
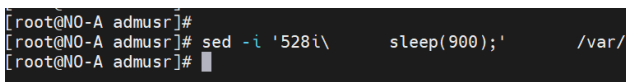
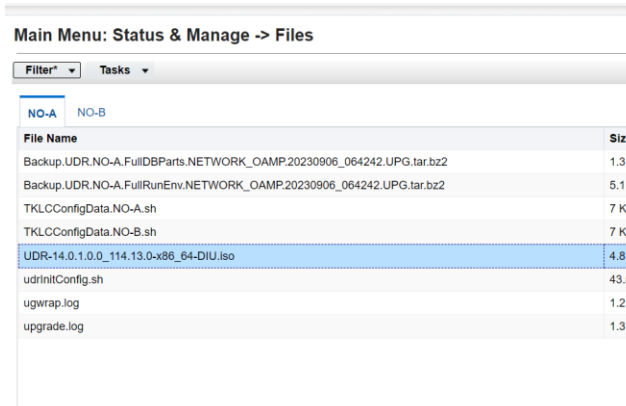
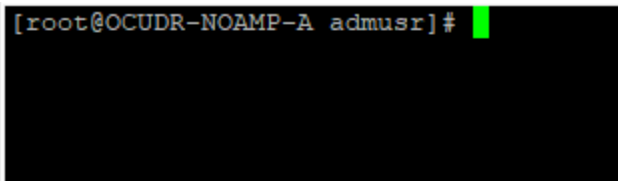
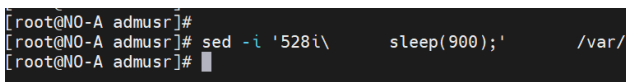
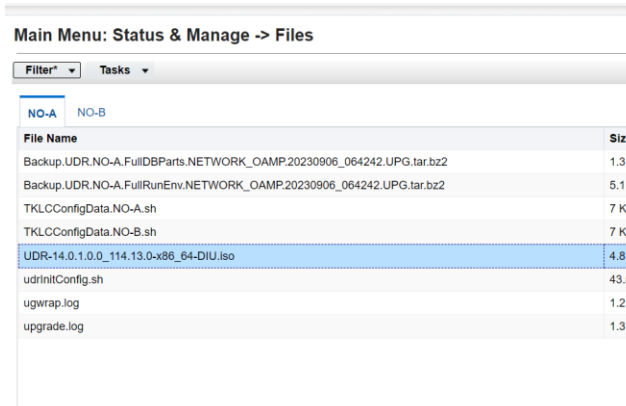
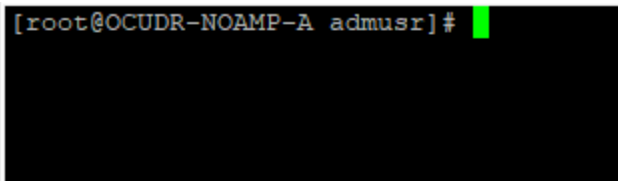
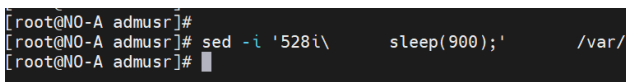
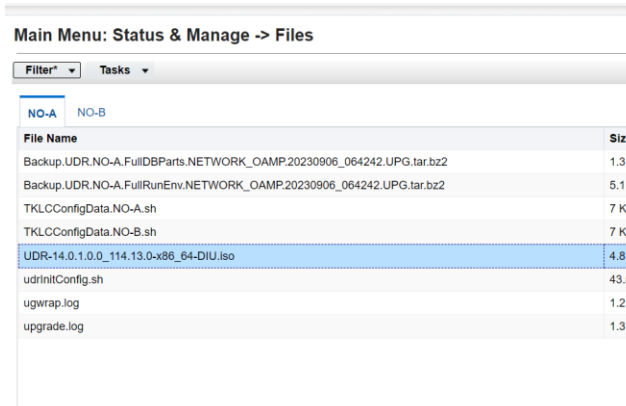
Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 9: Backout of SOAM / MP

Step	Procedure	Result
9. ☐	1) Record the Server names of the MPs associated with the SOAM NE. 2) Beginning with MP2, execute C.1 for each MP Server associated with SOAM NE 3)"Check off" each Check Box as C.1is completed for the MP Server listed to its right.	Record the Server name of each MP to be "Backed Out" in the space provided below: "Check off" the associated Check Box as C.1is completed for each MP. ☐ MP1: _____ ☐ MP3: _____ ☐ MP2: _____ ☐ MP4: _____

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 9: Backout of SOAM / MP

Step	Procedure	Result															
10. 	Active NOAMP VIP: Execute C.1 for the Standby SOAM Server .	Backout the target release for the Standby SOAM Server as specified in C.1 (OL8 To OL8 Upgrade Appendix C.2: OL8 to OL8 Upgrade) This procedure explains the steps of upgrading OL8 based TPD server to OL8 based TPD server Procedure 12: Upgrade Server															
		<table><tr><th>Step</th><th>Procedure</th><th>Result</th></tr><tr><td>19.</td><td>Login to console of active server</td><td>Note1 : Vgroot should have 24GB free space to proceed Note 2: if you observe any alarm related to disk space to that volume to clear the alarm If enough memoy is not available to handle both above with required memory with steps mentioned in Appendix C.2: OL8 to OL8 Upgrade Access the server using ssh and switch to root: #sudo su - </td></tr><tr><td>20.</td><td>Run the below command in CLI “sed -i '528i\ sleep(900);' /var/TKLC/appworks/services/SvrUpgrade.php”</td><td></td></tr><tr><td>21.</td><td>Copy the DIU ISO to the filemgmt And change the file permission</td><td># cp source of DIU-ISO /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso # chmod 777 /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso</td></tr><tr><td>22.</td><td>Then Deploy DIU iso from Active UDR GUI</td><td></td></tr></table>	Step	Procedure	Result	19.	Login to console of active server	Note1 : Vgroot should have 24GB free space to proceed Note 2: if you observe any alarm related to disk space to that volume to clear the alarm If enough memoy is not available to handle both above with required memory with steps mentioned in Appendix C.2: OL8 to OL8 Upgrade Access the server using ssh and switch to root: #sudo su - 	20.	Run the below command in CLI “sed -i '528i\ sleep(900);' /var/TKLC/appworks/services/SvrUpgrade.php”		21.	Copy the DIU ISO to the filemgmt And change the file permission	# cp source of DIU-ISO /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso # chmod 777 /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso	22.	Then Deploy DIU iso from Active UDR GUI	
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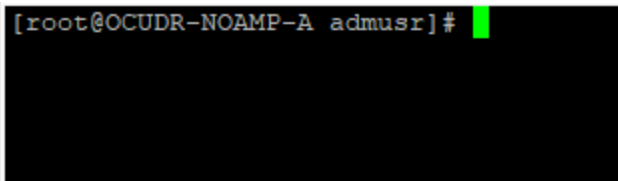
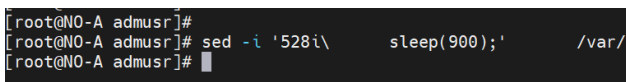
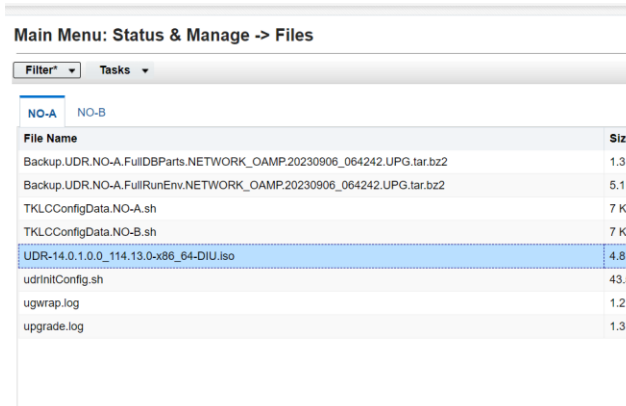
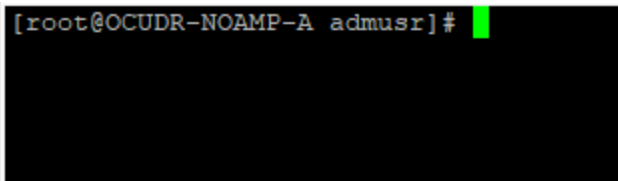
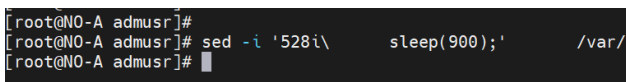
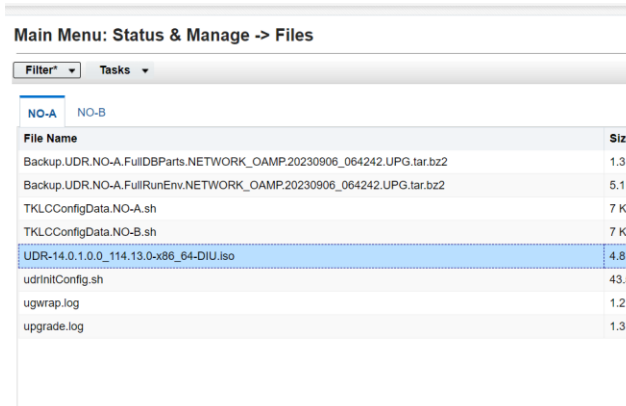
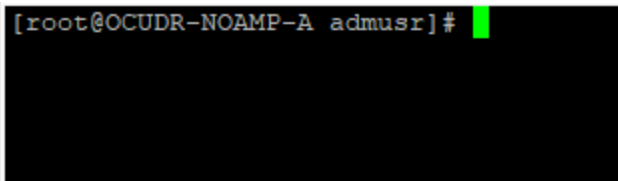
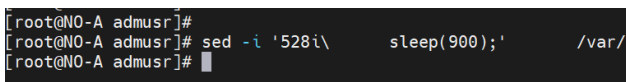
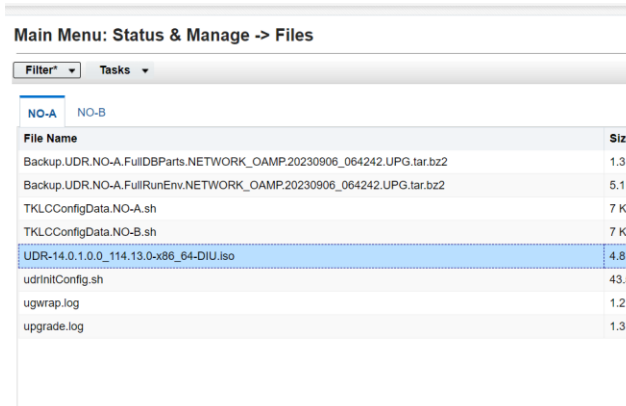
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Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 9: Backout of SOAM / MP

Step	Procedure	Result															
11. 	Active NOAMP VIP: Execute C.1 for the Active SOAM Server .	Backout the target release for the Active SOAM Server as specified in C.1 (OL8 To OL8 Upgrade Appendix C.2: OL8 to OL8 Upgrade) This procedure explains the steps of upgrading OL8 based TPD server to OL8 based TPD server Procedure 12: Upgrade Server															
		<table><tr><th>Step</th><th>Procedure</th><th>Result</th></tr><tr><td>37.</td><td>Login to console of active server</td><td>Note1 : Vgroot should have 24GB free space to proceed Note 2: if you observe any alarm related to disk space to that volume to clear the alarm If enough memoy is not available to handle both above with required memory with steps mentioned in Appendix C.2: OL8 to OL8 Upgrade Access the server using ssh and switch to root: #sudo su - </td></tr><tr><td>38.</td><td>Run the below command in CLI “sed -i '528i\ sleep(900);' /var/TKLC/appwork s/services/SvrUpgr ade.php”</td><td></td></tr><tr><td>39.</td><td>Copy the DIU ISO to the filemgmt And change the file permission</td><td># cp source of DIU-ISO /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso # chmod 777 /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso</td></tr><tr><td>40.</td><td>Then Deploy DIU iso from Active UDR GUI</td><td></td></tr></table>	Step	Procedure	Result	37.	Login to console of active server	Note1 : Vgroot should have 24GB free space to proceed Note 2: if you observe any alarm related to disk space to that volume to clear the alarm If enough memoy is not available to handle both above with required memory with steps mentioned in Appendix C.2: OL8 to OL8 Upgrade Access the server using ssh and switch to root: #sudo su - 	38.	Run the below command in CLI “sed -i '528i\ sleep(900);' /var/TKLC/appwork s/services/SvrUpgr ade.php”		39.	Copy the DIU ISO to the filemgmt And change the file permission	# cp source of DIU-ISO /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso # chmod 777 /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso	40.	Then Deploy DIU iso from Active UDR GUI	
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Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 9: Backout of SOAM / MP

Step	Procedure	Result
12. ☐	Active NOAMP VIP: Execute Health Check at this time only if no other servers require back Out. Otherwise, proceed with the next Backout.	Execute Health Check procedures (Post Backout) as specified in Appendix B , if backout procedures have been completed for all required servers.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

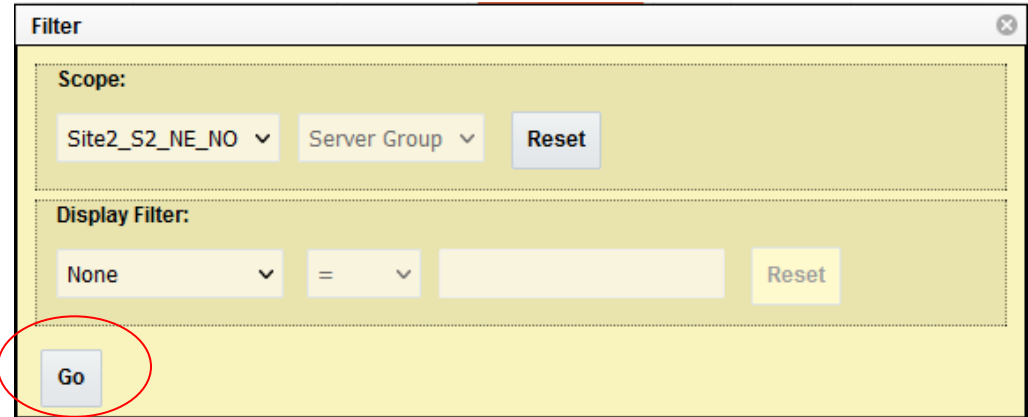
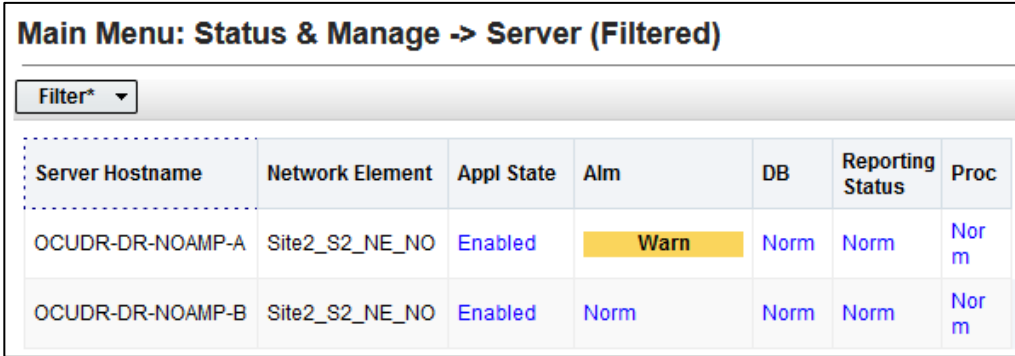
6.4 Backout of DR NOAMP NE

Procedure 10: Backout of DR NOAMP NE

Step	Procedure	Result																																																																																											
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																																																																																											
2. 	Active NOAMP VIP: Select... <u>Main Menu</u> → Status & Manage → Network Elements ...as shown on the right.	Main Menu: Status & Manage -> Network Elements Filter* ▼ <table><thead><tr><th>Network Element Name</th><th>Customer Router Monitoring</th></tr></thead><tbody><tr><td>Site1_S1_NE_NO</td><td>Disabled</td></tr><tr><td>Site1_S1_NE_SO</td><td>Disabled</td></tr><tr><td>Site2_S2_NE_NO</td><td>Disabled</td></tr><tr><td>Site2_S2_NE_SO</td><td>Disabled</td></tr></tbody></table>	Network Element Name	Customer Router Monitoring	Site1_S1_NE_NO	Disabled	Site1_S1_NE_SO	Disabled	Site2_S2_NE_NO	Disabled	Site2_S2_NE_SO	Disabled																																																																																	
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3. 	Record the name of the DR NOAMP NE to be downgraded (backed out) in the space provided to the right.	Record the name of the DR NOAMP NE which will be “ Backed out ”. DR NOAMP NE: _____																																																																																											
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Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 10: Backout of DR NOAMP NE

Step	Procedure	Result
5. ☐	Active NOAMP VIP: 1) From the Status & Manage→ Server filter pull-down, select the name for the DR NOAMP NE . 2) Click on the “GO” dialogue button located on the right end of the filter bar	
6. ☐	Active NOAMP VIP: The user should be presented with the list of servers associated with the DR NOAMP NE . Identify each “ Server Hostname ” and its associated “ Reporting Status ” and “ Appl State ”.	
7. ☐	Using the list of servers associated with the DR NOAMP NE shown in the above Step, record the Server names associated with the DR NOAMP NE .	Identify the DR NOAMP “Server” names and record them in the space provided below: Standby DR NOAMP: _____ Active DR NOAMP: _____
8. ☐	Active NOAMP VIP: Execute Appendix D for the first Spare - DR NOAMP Server	Backout the target release for the Spare DR NOAMP Server as specified in C.1 (<i>Backout of a Single Server</i>).
9. ☐	Active NOAMP VIP: Execute Appendix D for the second Spare - DR NOAMP Server .	Backout the target release for the Spare DR NOAMP Server as specified in C.1 (<i>Backout of a Single Server</i>).

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 10: Backout of DR NOAMP NE

Step	Procedure	Result
10. ☐	Active NOAMP VIP: Execute Health Check at this time only if no other servers require back Out. Otherwise, proceed with the next Backout	Execute Health Check procedures (Post Backout) as specified in Appendix B , if Backout procedures have been completed for all required servers.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

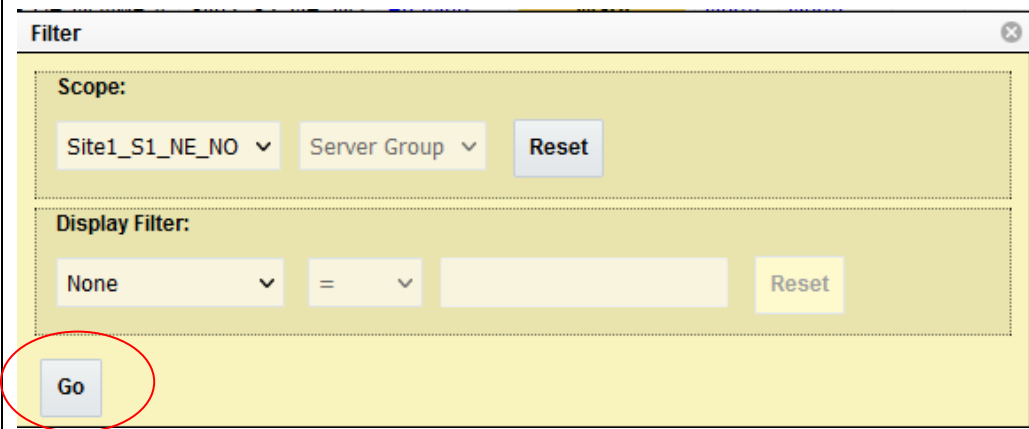
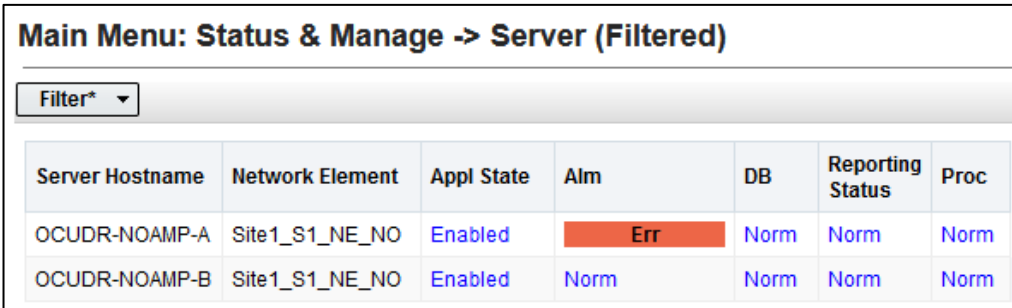
6.5 Backout of Primary NOAMP NE

Procedure 11: Backout of Primary NOAMP NE

Step	Procedure	Result																																																																																											
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																																																																																											
2. 	Active NOAMP VIP: Select... Main Menu → Status & Manage → Network Elements ...as shown on the right.	Main Menu: Status & Manage -> Network Elements Filter* ▼ <table><thead><tr><th>Network Element Name</th><th>Customer Router Monitoring</th></tr></thead><tbody><tr><td>Site1_S1_NE_NO</td><td>Disabled</td></tr><tr><td>Site1_S1_NE_SO</td><td>Disabled</td></tr><tr><td>Site2_S2_NE_NO</td><td>Disabled</td></tr><tr><td>Site2_S2_NE_SO</td><td>Disabled</td></tr></tbody></table>	Network Element Name	Customer Router Monitoring	Site1_S1_NE_NO	Disabled	Site1_S1_NE_SO	Disabled	Site2_S2_NE_NO	Disabled	Site2_S2_NE_SO	Disabled																																																																																	
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Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 11: Backout of Primary NOAMP NE

Step	Procedure	Result
5. ☐	Active NOAMP VIP: 1) From the Status & Manage/Server filter pull-down, select the name for the Primary NOAMP NE . 2) Click on the “GO” dialogue button located on the right end of the filter bar	
6. ☐	Active NOAMP VIP: The user should be presented with the list of servers associated with the Primary NOAMP NE . Identify each “ Server Hostname ” and its associated “ Reporting Status ” and “ Appl State ”.	
7. ☐	Using the list of servers associated with the Primary NOAMP NE shown in the above Step... Record the Server names associated with the Primary NOAMP NE .	Identify the Primary NOAMP “Server” names and record them in the space provided below: Standby Primary NOAMP: _____ Active Primary NOAMP: _____
8. ☐	Active NOAMP VIP: Execute Appendix D for the Standby Primary NOAMP Server	Backout the target release for the Standby Primary NOAMP Server as specified in C.1 (<i>Backout of a Single Server</i>).
9. ☐	Active NOAMP VIP: Execute Appendix D for the Active Primary NOAMP Server .	Backout the target release for the Active Primary NOAMP Server as specified in C.1 (<i>Backout of a Single Server</i>).

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 11: Backout of Primary NOAMP NE

Step	Procedure	Result
10. ☐	Active NOAMP VIP: Execute Health Check at this time only if no other servers require backout.	Execute Health Check procedures (Post Backout) as specified in Appendix B , if Backout procedures have been completed for all required servers.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

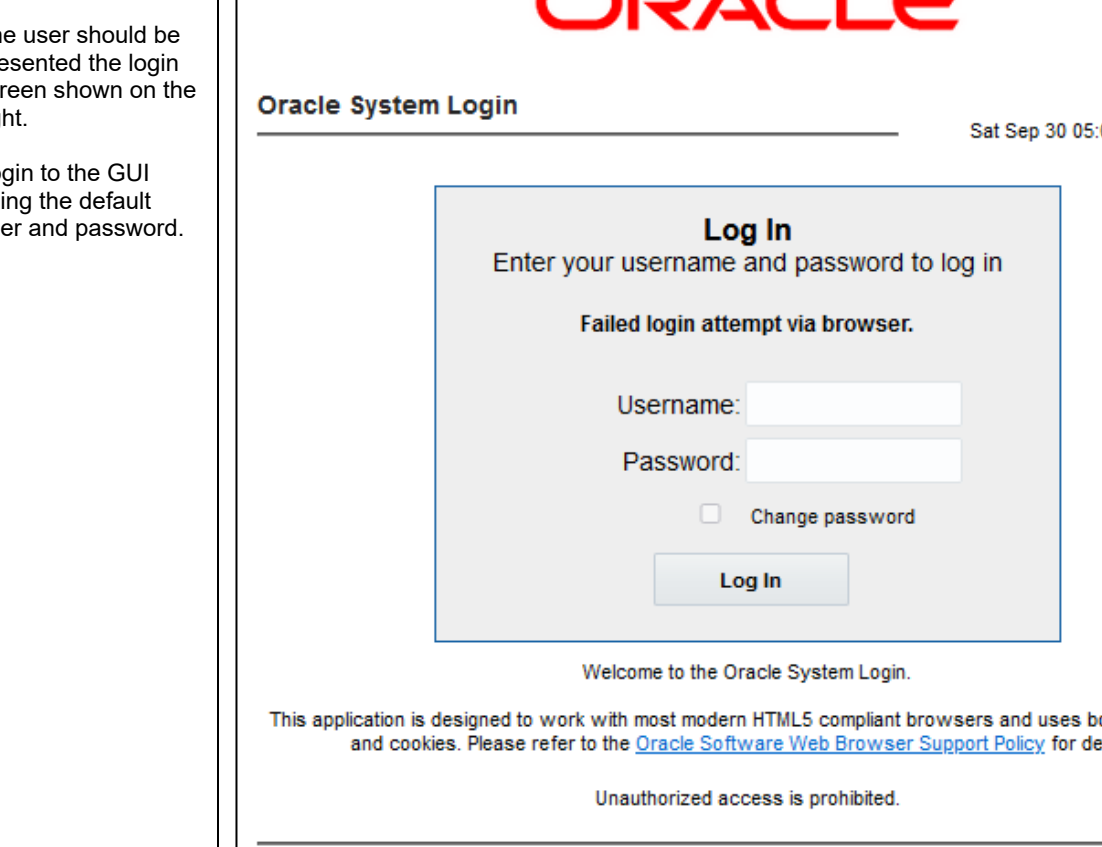
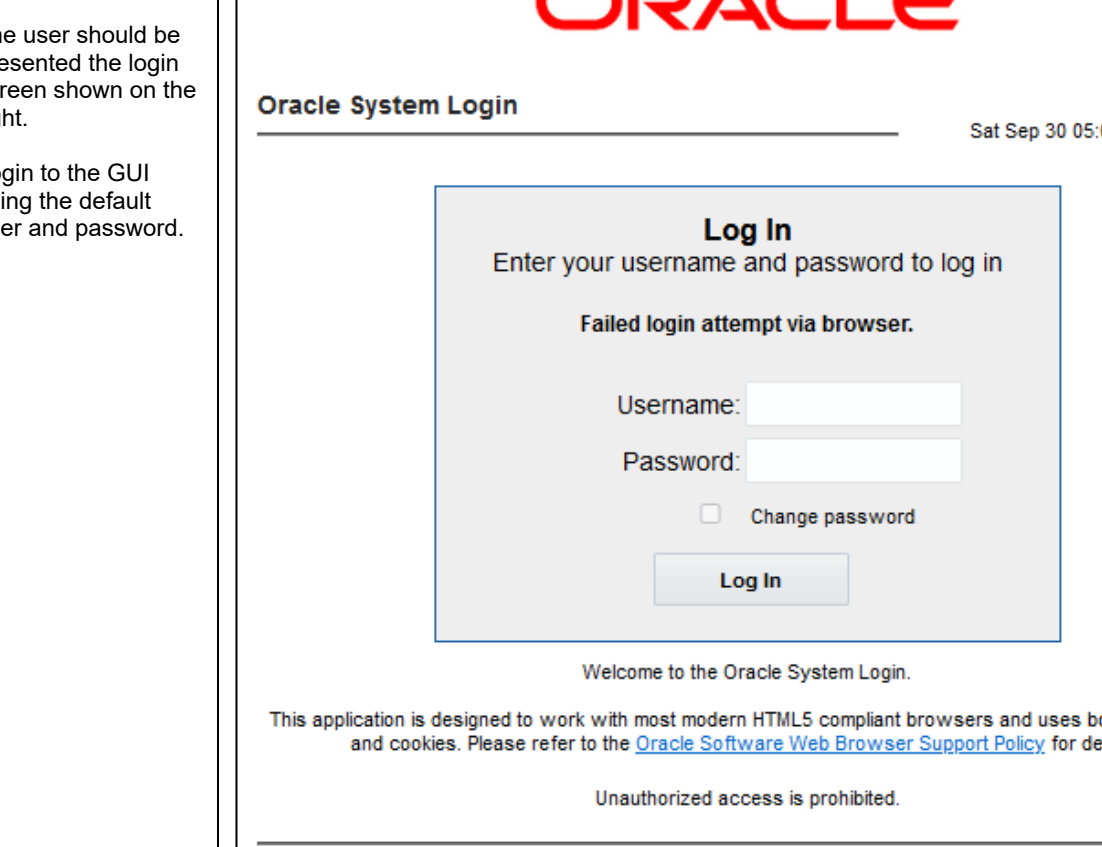
APPENDIX A. ACCESSING THE OAM SERVER GUI (NOAMP / SOAM)

Appendix A: Accessing the OAM Server GUI (NOAMP / SOAM)

Step	Procedure	Result
1. 	Active OAM VIP: 1) Launch Internet Explorer or other and connect to the XMI Virtual IP address (VIP) assigned to Active OAM site 2) If a Certificate Error is received, click on the box which states... "Proceed anyway."	 There's a problem with this website's security certificate This might mean that someone's trying to fool you or steal any info you send to the server. You should close this site immediately.  Go to my homepage instead  Continue to this webpage (not recommended)

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix A: Accessing the OAM Server GUI (NOAMP / SOAM)

Step	Procedure	Result
2. 	Active OAM VIP: The user should be presented the login screen shown on the right. Login to the GUI using the default user and password.	

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix A: Accessing the OAM Server GUI (NOAMP / SOAM)

Step	Procedure	Result
3.	Active OAM VIP: 1) The user should be presented the Main Menu as shown on the right. 2) Verify that the message shown across the top of the right panel indicates that the browser is using the “VIP” connected to the Active OAM server.	Main Menu Administration General Options Access Control Software Management Versions Upgrade Remote Servers Configuration Alarms & Events Security Log Status & Manage Network Elements Server HA Database KPIs Processes Tasks Files Measurements Main Menu: [Main] This is the user-defir It can be modified using the 'General Op Login Nar Last Login Time: Last Login I Recent Failed I NOTE: The message may show connection to either a “ACTIVE NETWORK OAM&P” or a “SYSTEM OAM” depending on the selected NE.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX B. HEALTH CHECK PROCEDURES

This procedure is part of Software Upgrade Preparation and is used to determine the health and status of the Oracle Communications User Data Repository network and servers.

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

Appendix B: Health Check Procedures

Step	Procedure	Result																																																																																											
1. 	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																																																																																											
2. 	Active NOAMP VIP: Select... <u>Main Menu</u> → Status & Manage → Server ...as shown on the right.	Main Menu: Status & Manage -> Server Filter* ▾ <table><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>OCUDR-DR-MP3</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-MP4</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-A</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-A</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-B</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP1</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP2</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-A</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-B</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-A</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-B</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></table> Verify that all server statuses show “Norm” as shown above.	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm	OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Enabled	Norm	Norm	Norm	Norm	OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm
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Oracle Communications User Data Repository Software Upgrade Procedure

Appendix B: Health Check Procedures

Step	Procedure	Result																																																																																											
3. 	Active NOAMP VIP: If any other server statuses are present, they will appear in a colored box as shown on the right. NOTE: Other server states include “Err, Warn, Man, Unk and Disabled”.	Main Menu: Status & Manage -> Server Filter* <table><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>OCUDR-DR-MP3</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-MP4</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-A</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-A</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-B</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP1</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP2</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-A</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-B</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-A</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-B</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></table> B.1 If server state is any value besides NORM, follow Resizing VM Guest disk for upgrade on VMWare	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm	OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Enabled	Norm	Norm	Norm	Norm	OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm
	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																																																																																						
OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm																																																																																							
OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm																																																																																							
OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm																																																																																							
OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Enabled	Norm	Norm	Norm	Norm																																																																																							
OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																																																							
OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																																																							
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OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm																																																																																							
OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm																																																																																							
OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																																																							
OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm																																																																																							
	<table><tr><th>Step</th><th>Procedure</th><th>Result</th></tr><tr><td>1.</td><td>Login to VMWare home page.</td><td> Welcome to VMware Cloud Director You are about to sign in to Oracle. User name: Password: SIGN IN </td></tr><tr><td>2.</td><td>Go to vm page and shut off vm for which disk size needs to be updated</td><td> vmw VMware Cloud DirectorData CentersApp Virtual ApplicationsVirtual Machines Find by: Name ADVANCE 71 Virtual Machines NEW VM UDR Powered on VM Console Runtime leaseNever Suspends ⓘ Created On04/03/2023, 04:25:44 PM Owner siddhartha.p.pandev@oracle.c... occne4-albe Powered on VM Console Runtime lease Created On Owner </td></tr></table>	Step	Procedure	Result	1.	Login to VMWare home page.	Welcome to VMware Cloud Director You are about to sign in to Oracle. User name: Password: SIGN IN	2.	Go to vm page and shut off vm for which disk size needs to be updated	vmw VMware Cloud DirectorData CentersApp Virtual ApplicationsVirtual Machines Find by: Name ADVANCE 71 Virtual Machines NEW VM UDR Powered on VM Console Runtime leaseNever Suspends ⓘ Created On04/03/2023, 04:25:44 PM Owner siddhartha.p.pandev@oracle.c... occne4-albe Powered on VM Console Runtime lease Created On Owner																																																																																			
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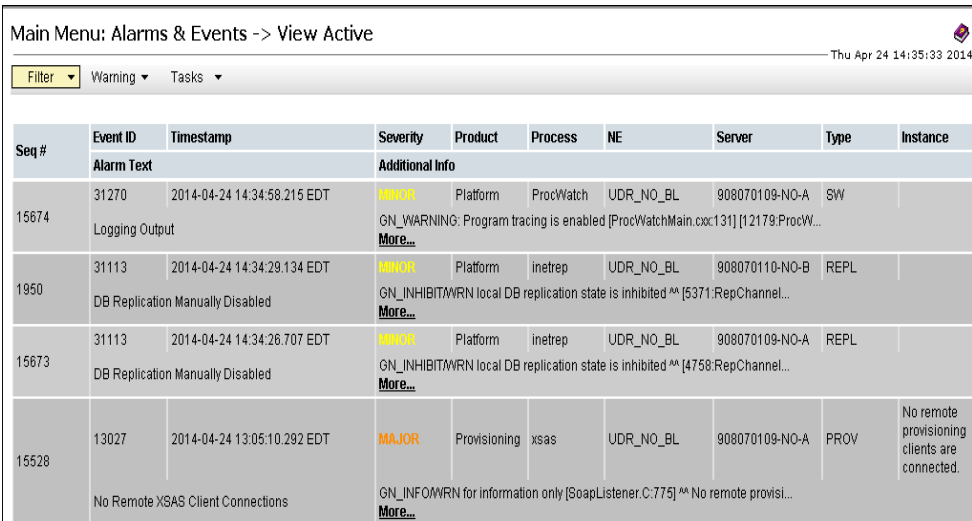
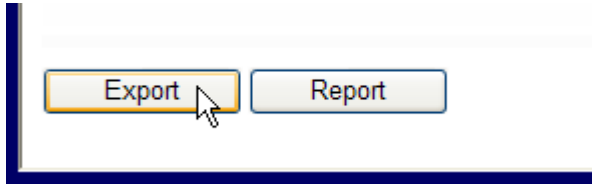
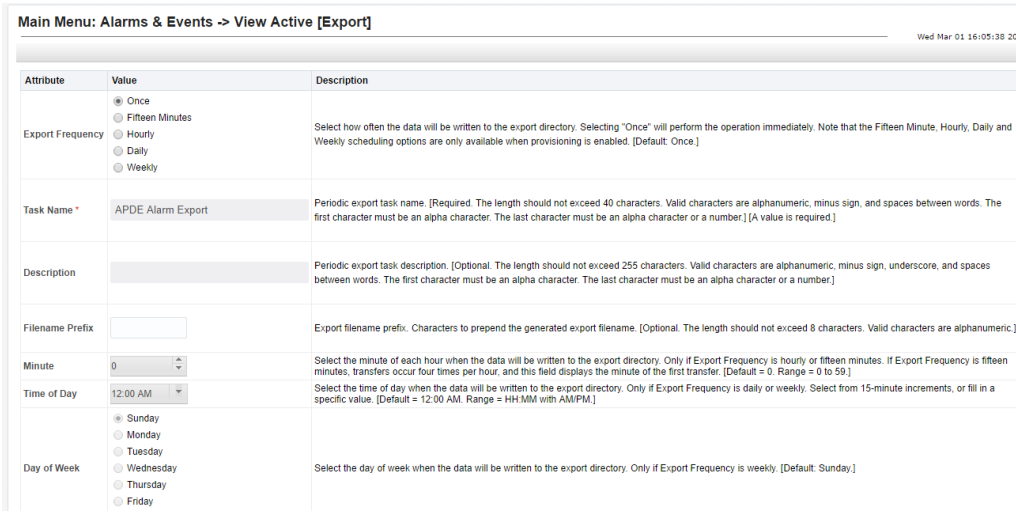
Release 15.1.0.0.0

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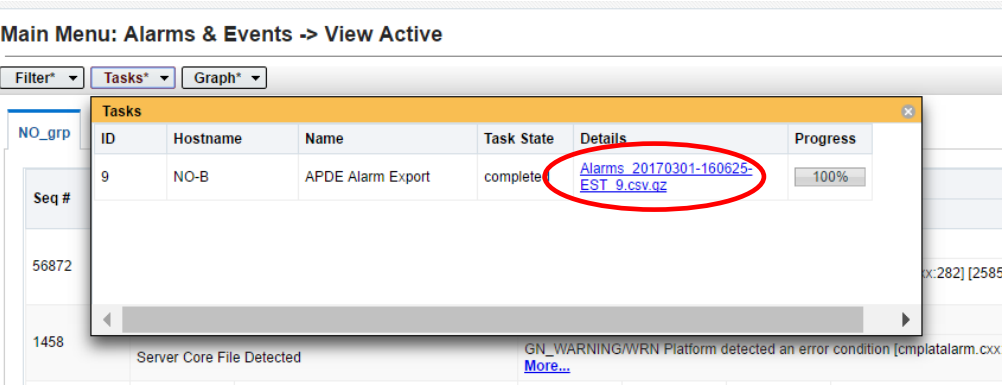
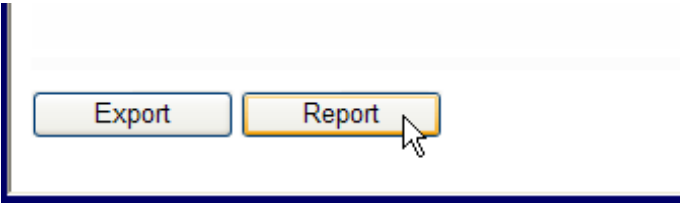
Oracle Communications User Data Repository Software Upgrade Procedure

Appendix B: Health Check Procedures

Step	Procedure	Result
4. 	Active NOAMP VIP: Select... Main Menu → Alarm & Events → View Active ...as shown on the right.	
5. 	Active NOAMP VIP: Select the “ Export ” dialogue button from the bottom left corner of the screen.	 Note: This step cannot be performed if global provisioning is disabled. The “export” button will be greyed out in that scenario.
6. 	Active NOAMP VIP: Click the “ Ok ” button at the bottom of the screen. Default values are fine.	

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix B: Health Check Procedures

Step	Procedure	Result
7. 	Active NOAMP VIP: Click the Tasks dropdown. The name of the exported Alarms CSV file will appear in the banner at the top of the right panel.	
8. 	Active NOAMP VIP: Record the filename of Alarms CSV file generated in the space provided to the right.	Example: <i>Alarms<yyyymmdd>_<hhmmss>.csv</i> Alarms _____ - _____.csv
9. 	Active NOAMP VIP: Select the “Report” dialogue button from the bottom left corner of the screen.	

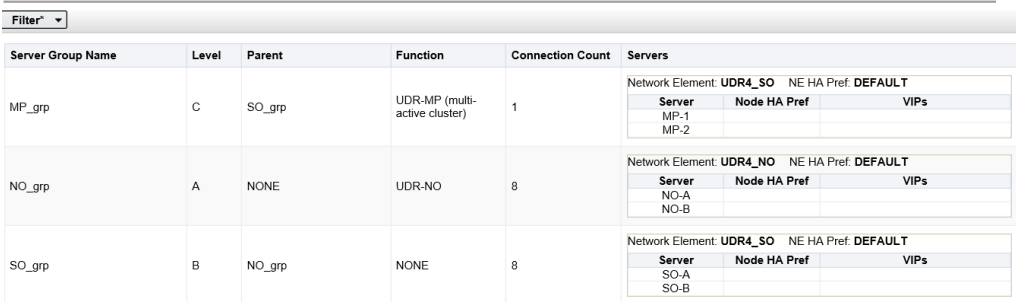
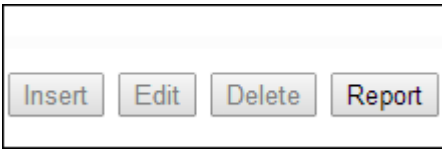
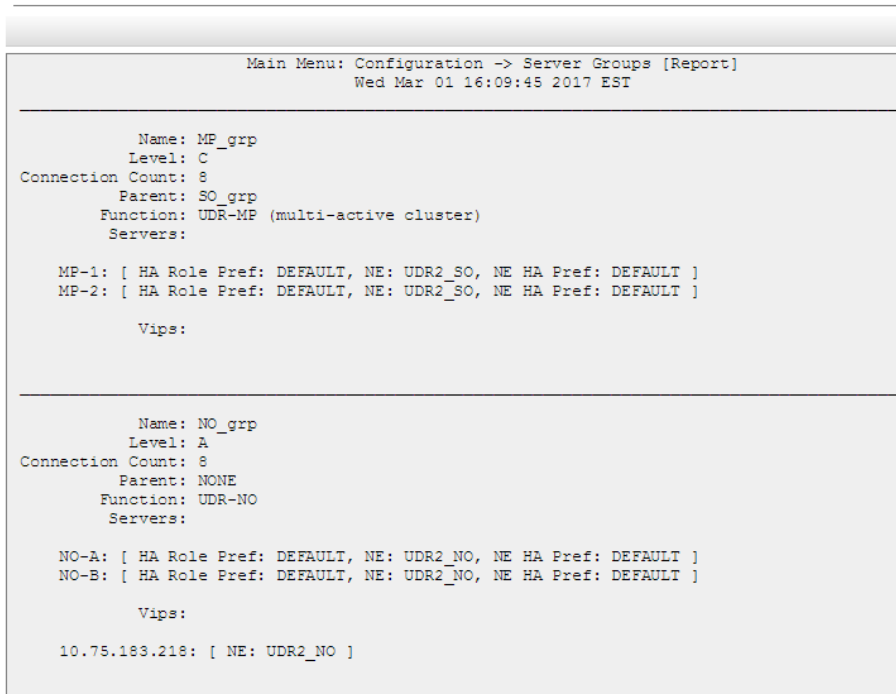
Oracle Communications User Data Repository Software Upgrade Procedure

Appendix B: Health Check Procedures

Step	Procedure	Result						
10. 	Active NOAMP VIP: Active “Alarms & Events” Report will be generated and displayed in the right panel.	Main Menu: Alarms & Events -> View Active [Report] Main Menu: Alarms & Events -> View Active [Report] Wed Mar 01 16:08:11 2017 EST Timestamp: 2017-03-01 16:07:49.971 EST Network_Element: UDR2_NO Server: NO-B Seq_Num: 56878 Event_Number: 31270 Severity: MINOR Product: Platform Process: ProcWatch Type: SW Instance: Name: Logging Output Descr: Logging Output set to Above Normal Err_Info: GN WARNING: Program tracing is enabled [ProcWatchMain.cxx:282] [25857:ProcWatchMain.cxx:283] NSECS: 1598159982881848712 ID: 0 Timestamp: 2017-03-01 05:58:12.010 EST Network_Element: UDR2_SO Server: SO-A Seq_Num: 1458 Event_Number: 32508 Severity: MINOR Product: TPD Process: cmplatalarm Type: PLAT Instance: Print Save Back						
11. 	Active NOAMP VIP: 1) Select the “Save” dialogue button from the bottom/middle of the right panel. 2) Click the “Save” dialogue and save to a directory.	1 Print Save Back						
12. 	Active NOAMP VIP: Select... Main Menu → Configuration → Network Elements ...as shown on the right.	Main Menu: Status & Manage -> Network Elements Filter* ▼ <table><tr><th>Network Element Name</th><th>Customer Router Monitoring</th></tr><tr><td>UDR4_NO</td><td>Disabled</td></tr><tr><td>UDR4_SO</td><td>Disabled</td></tr></table>	Network Element Name	Customer Router Monitoring	UDR4_NO	Disabled	UDR4_SO	Disabled
Network Element Name	Customer Router Monitoring							
UDR4_NO	Disabled							
UDR4_SO	Disabled							

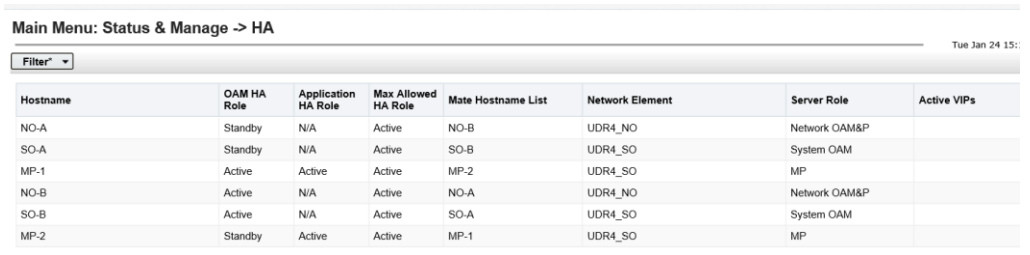
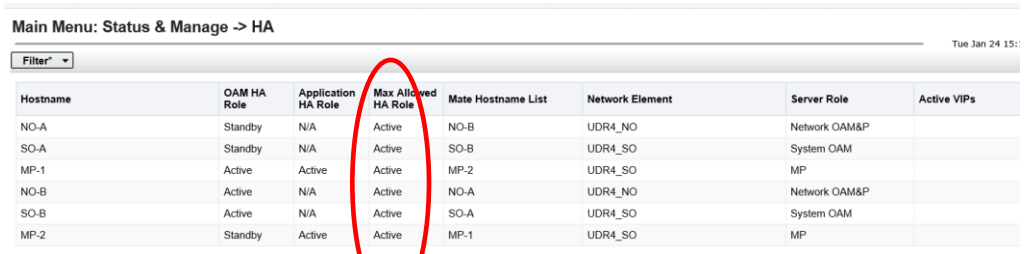
Oracle Communications User Data Repository Software Upgrade Procedure

Appendix B: Health Check Procedures

Step	Procedure	Result
13. 	Active NOAMP VIP: Select... Main Menu → Configuration → Server Groups ...as shown on the right.	Main Menu: Configuration -> Server Groups 
14. 	Active NOAMP VIP: Select the “ Report ” dialogue button from the bottom left corner of the screen.	
15. 	Active NOAMP VIP: A “ Server Group Report ” will be generated and displayed in the right panel.	Main Menu: Configuration -> Server Groups [Report] 

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix B: Health Check Procedures

Step	Procedure	Result
16. ☐	Active NOAMP VIP: 1) Select the “Save” dialogue button from the bottom/middle of the right panel. 2) Click the “Save” dialogue and save to a directory.	
17. ☐	Provide the saved files to the Customer Care Center for Health Check Analysis.	If executing this procedure as a pre or post Upgrade Health Check (HC1/HC2/HC3), provide the following saved files to the Customer Care Center for proper Health Check Analysis: Active “Alarms & Events” Report [Appendix B, Step 11] Network Elements Report [Appendix B, Step Error! Reference source not found.] Server Group Report [Appendix B, Step 16]
18. ☐	Active NOAMP VIP: Select... Main Menu → Status & Manage →HA ...as shown on the right.	
19. ☐	Active NOAMP VIP: 1) Verify that the “HA Status” for all servers shows either “Active” or “Standby” as shown to the right.	
20. ☐	Active NOAMP VIP: Repeat Step 19 of this procedure until the last page of the [Main Menu: Status & Manage →HA] screen is reached.	Verify the “HA Status” for each page of the [Main Menu: Status & Manage →HA] screen and click “Next” to reach the next page.
STEP 21 IS POST-UPGRADE ONLY		

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix B: Health Check Procedures

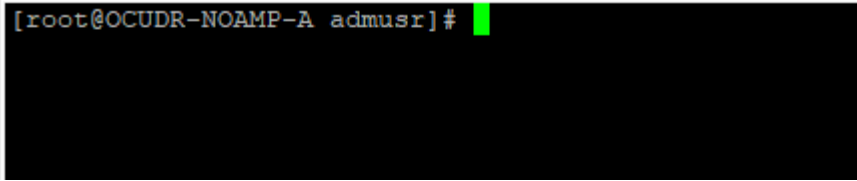
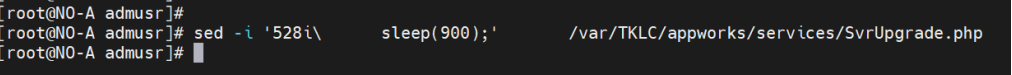
Step	Procedure	Result
21. 	Active NOAMP VIP: Determine if any errors were reported.	Use an SSH client to connect to the recently upgraded server(s) (e.g., ssh, putty): ssh< server IMI IP address> login as: admusr password: <enter password> Switch to root su – password: <enter password> # verifyUpgrade Examine the output of the above command to determine if any errors were reported. Contact the Oracle CGBU Customer Care Center in case of errors.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX C. UPGRADE OF A SERVER [VM TO VM – UDR-15.0.4/15.0.5/15.0.6 TO UDR-15.1.0]**C.1 OL8 To OL8 Upgrade****Appendix C.2: OL8 to OL8 Upgrade**

This procedure explains the steps of upgrading OL8 based TPD server to OL8 based TPD server

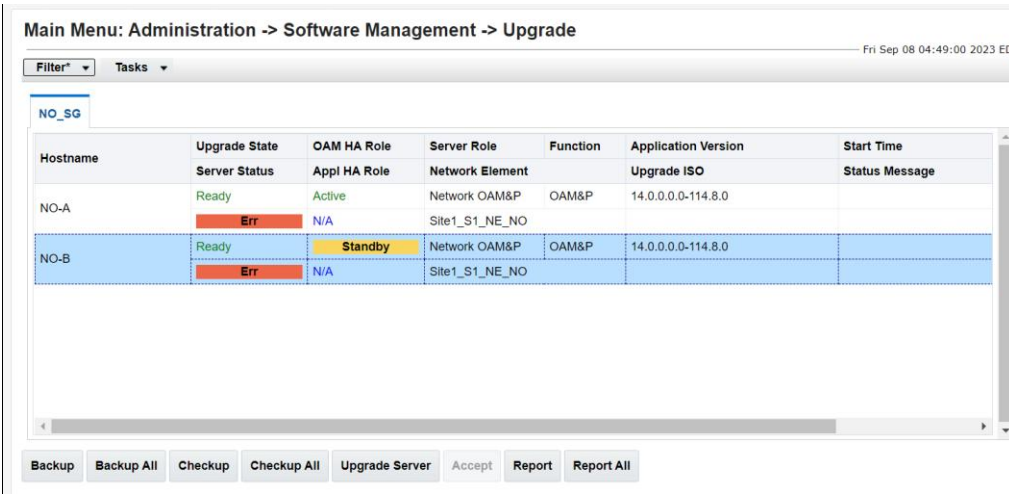
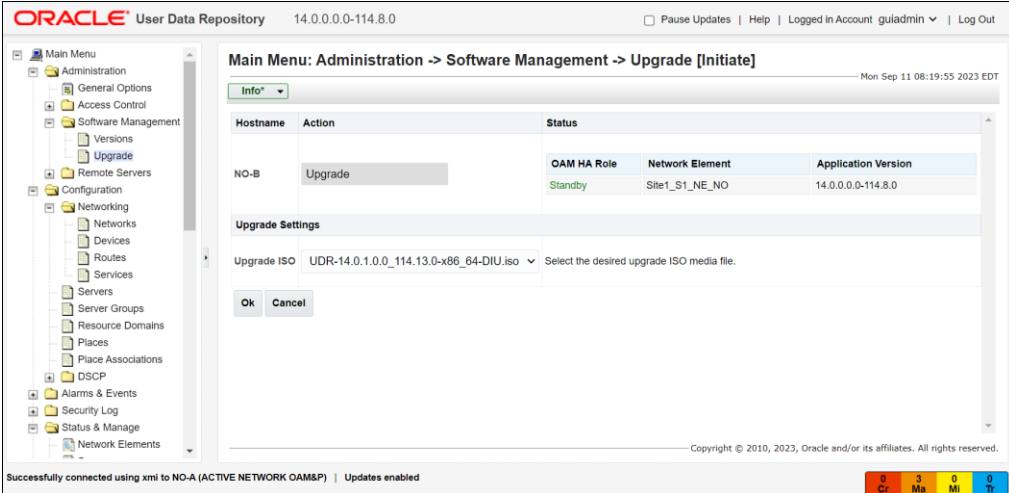
Procedure 12: Upgrade Server

Step	Procedure	Result
55.	Login to console of active server	Note1 : Vgroot should have 24GB free space to proceed an upgrade Note 2: if you observe any alarm related to disk space shortage ,then extend the memory to that volume to clear the alarm If enough memoy is not available to handle both above scenarios then resize the VM with required memory with steps mentioned in Appendix.H Access the server using ssh and switch to root: <code>#sudo su -</code> 
56.	Run the below command in CLI <pre>sed -i '528i\ sleep(900);' /var/TKLC/appworks/services/SvrUpgrade.php</pre>	
57.	Copy the DIU ISO to the filemgmt And change the file permission	<pre># cp source of DIU-ISO /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso</pre> <pre># chmod 777 /var/TKLC/db/filemgmt/UDR-15.0.1.0.0_115.12.0-x86_64-DIU.iso</pre>

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result																																				
58.	Then Deploy DIU iso from Active UDR GUI	Main Menu: Status & Manage -> Files Filter*Tasks NO-A NO-B <table><tr><th>File Name</th><th>Size</th><th>Type</th><th>Timestamp</th></tr><tr><td>Backup.UDR.NO-A.FullDBParts.NETWORK_OAMP.20230906_064242.UPG.tar.bz2</td><td>1.3 MB</td><td>bz2</td><td>2023-09-06 06:43:17 EDT</td></tr><tr><td>Backup.UDR.NO-A.FullRunEnv.NETWORK_OAMP.20230906_064242.UPG.tar.bz2</td><td>5.1 MB</td><td>bz2</td><td>2023-09-06 06:43:31 EDT</td></tr><tr><td>TKLCCConfigData.NO-A.sh</td><td>7 KB</td><td>sh</td><td>2023-09-06 06:12:52 EDT</td></tr><tr><td>TKLCCConfigData.NO-B.sh</td><td>7 KB</td><td>sh</td><td>2023-09-08 04:18:00 EDT</td></tr><tr><td>UDR-14.0.1.0.0_114.13.0-x86_64-DIU.iso</td><td>4.8 GB</td><td>iso</td><td>2023-09-08 05:19:07 EDT</td></tr><tr><td>udrinitConfig.sh</td><td>43.5 KB</td><td>sh</td><td>2023-03-27 03:56:01 EDT</td></tr><tr><td>ugwrap.log</td><td>1.2 KB</td><td>log</td><td>2023-03-30 08:15:54 EDT</td></tr><tr><td>upgrade.log</td><td>1.3 MB</td><td>log</td><td>2023-09-06 04:54:03 EDT</td></tr></table> Delete View ISO Deployment Report Upload Download Deploy ISO Validate ISO 6.4 MB used (0.01%) of 121.5 GB available System utilization: 5.2 GB (4.28%) of 121.5 GB available. Note: Refer the section 3.2.5 for iso deployment	File Name	Size	Type	Timestamp	Backup.UDR.NO-A.FullDBParts.NETWORK_OAMP.20230906_064242.UPG.tar.bz2	1.3 MB	bz2	2023-09-06 06:43:17 EDT	Backup.UDR.NO-A.FullRunEnv.NETWORK_OAMP.20230906_064242.UPG.tar.bz2	5.1 MB	bz2	2023-09-06 06:43:31 EDT	TKLCCConfigData.NO-A.sh	7 KB	sh	2023-09-06 06:12:52 EDT	TKLCCConfigData.NO-B.sh	7 KB	sh	2023-09-08 04:18:00 EDT	UDR-14.0.1.0.0_114.13.0-x86_64-DIU.iso	4.8 GB	iso	2023-09-08 05:19:07 EDT	udrinitConfig.sh	43.5 KB	sh	2023-03-27 03:56:01 EDT	ugwrap.log	1.2 KB	log	2023-03-30 08:15:54 EDT	upgrade.log	1.3 MB	log	2023-09-06 04:54:03 EDT
File Name	Size	Type	Timestamp																																			
Backup.UDR.NO-A.FullDBParts.NETWORK_OAMP.20230906_064242.UPG.tar.bz2	1.3 MB	bz2	2023-09-06 06:43:17 EDT																																			
Backup.UDR.NO-A.FullRunEnv.NETWORK_OAMP.20230906_064242.UPG.tar.bz2	5.1 MB	bz2	2023-09-06 06:43:31 EDT																																			
TKLCCConfigData.NO-A.sh	7 KB	sh	2023-09-06 06:12:52 EDT																																			
TKLCCConfigData.NO-B.sh	7 KB	sh	2023-09-08 04:18:00 EDT																																			
UDR-14.0.1.0.0_114.13.0-x86_64-DIU.iso	4.8 GB	iso	2023-09-08 05:19:07 EDT																																			
udrinitConfig.sh	43.5 KB	sh	2023-03-27 03:56:01 EDT																																			
ugwrap.log	1.2 KB	log	2023-03-30 08:15:54 EDT																																			
upgrade.log	1.3 MB	log	2023-09-06 04:54:03 EDT																																			
59. ☐	Using the VIP address, access the primary NOAMP GUI.	Access the primary NOAMP GUI as specified in Appendix A. NOTE: Ensure that there are no users in the /var/TKLC/db/filemgmt directory on server to be upgraded																																				
60. ☐	Active NOAMP VIP: 39. Navigate to Main Menu → Administration → Software Management → Upgrade 40. Select server group tab for servers to be upgraded. 41. Verify that the Upgrade State shows Ready for the servers to be upgraded. 42. Verify the Application Version value for servers is the source software release version	ORACLE User Data Repository14.0.0.0.0-114.8.0 Pause UpdatesHelp Logged in Account: guadmin Log Out Main Menu: Administration -> Software Management -> Upgrade Filter*Tasks NO_SG <table><tr><th>Hostname</th><th>Upgrade State</th><th>OAM HA Role</th><th>Server Role</th><th>Function</th><th>Application Version</th><th>Start Time</th></tr><tr><td>NO-A</td><td>Ready</td><td>Active</td><td>Network OAM&P</td><td>OAM&P</td><td>14.0.0.0.0-114.8.0</td><td>Status Mess</td></tr><tr><td>NO-B</td><td>Ready</td><td>Standby</td><td>Network OAM&P</td><td>OAM&P</td><td>14.0.0.0.0-114.8.0</td><td></td></tr></table> Backup Backup All Checkup Checkup All Auto Upgrade Accept Report Report All Copyright © 2010, 2023, Oracle and/or its affiliates. All rights reserved. Successfully connected using xmi to NO-A (ACTIVE NETWORK OAM&P) Updates enabled 0 3 0 0 Cr Ms Mr Tr	Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	NO-A	Ready	Active	Network OAM&P	OAM&P	14.0.0.0.0-114.8.0	Status Mess	NO-B	Ready	Standby	Network OAM&P	OAM&P	14.0.0.0.0-114.8.0																
Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time																																
NO-A	Ready	Active	Network OAM&P	OAM&P	14.0.0.0.0-114.8.0	Status Mess																																
NO-B	Ready	Standby	Network OAM&P	OAM&P	14.0.0.0.0-114.8.0																																	

Oracle Communications User Data Repository Software Upgrade Procedure

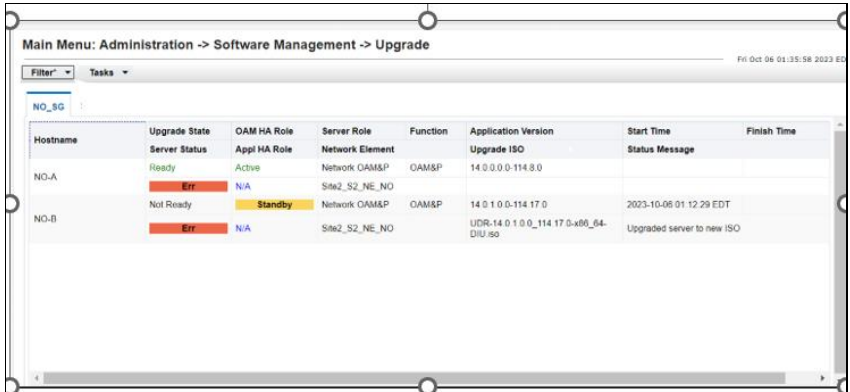
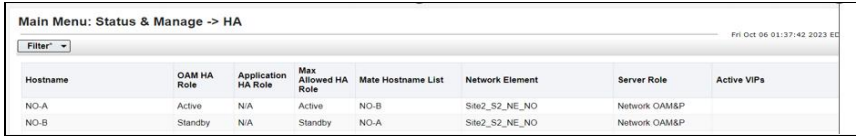
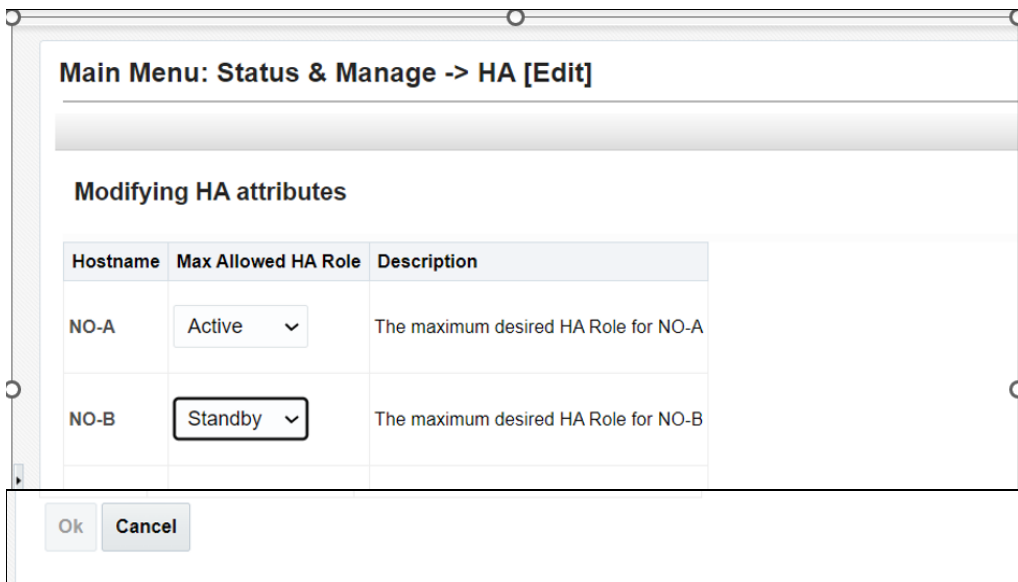
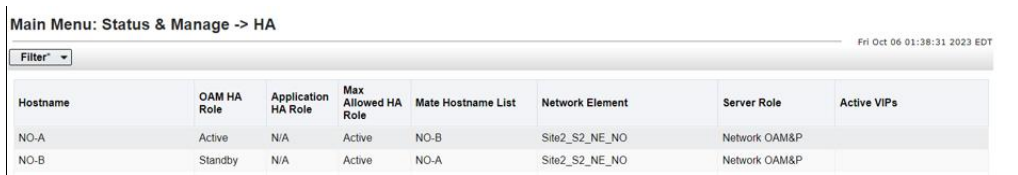
Step	Procedure	Result
61. ☐	Active NOAMP VIP: 43. Select the server (for one server at a time) 44. Ensure the Upgrade Server button is enabled. 45. Click Upgrade Server	 The screenshot shows the Oracle User Data Repository interface for upgrading software. The main menu is 'Administration -> Software Management -> Upgrade'. A table lists two servers: NO-A and NO-B. NO-A is in 'Ready' state with 'Active' OAM HA Role. NO-B is in 'Ready' state with 'Standby' OAM HA Role. The 'Upgrade Server' button is visible at the bottom.
		 The screenshot shows the Oracle User Data Repository interface for initiating the upgrade. The main menu is 'Administration -> Software Management -> Upgrade [Initiate]'. A table lists the server NO-B with the action 'Upgrade'. The 'Upgrade Settings' section shows the 'Upgrade ISO' as 'UDR-14.0.1.0.0_114.13.0-x86_64-DIU.iso'. The 'Upgrade Server' button is visible at the bottom.

Oracle Communications User Data Repository Software Upgrade Procedure

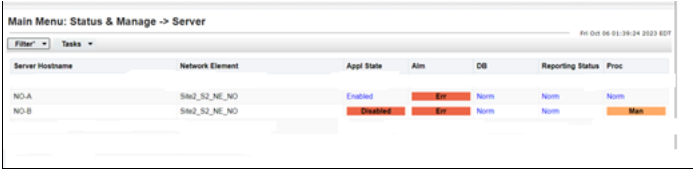
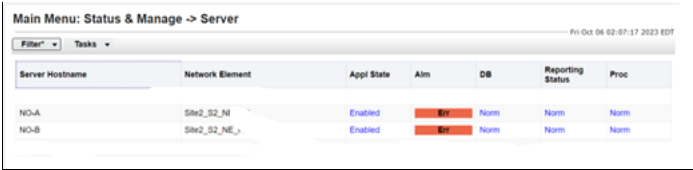
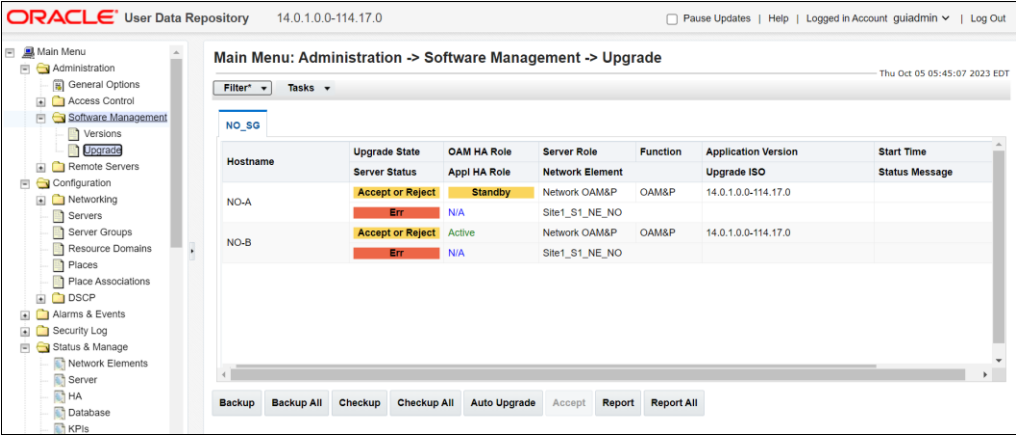
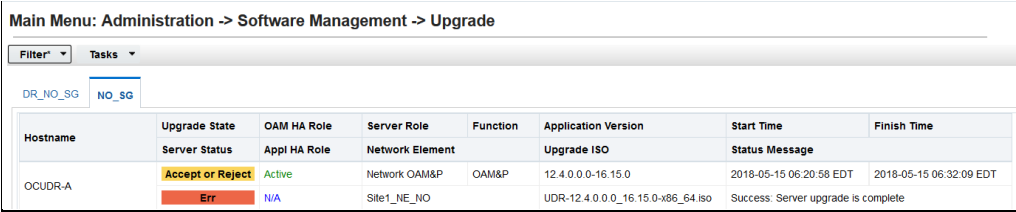
Step	Procedure	Result
62. ☐	Active NOAMP VIP: 46. The Upgrade [Initiate] screen displays 47. Select the ISO to use in the server upgrade 48. Click Ok to start the upgrade	NOTE: During the upgrade you might see the following expected alarms. Not all servers have all alarms: 31101(DB Replication to a slave DB has failed) 31106(DB Merging to a parent Merge Node has failed) 31107(DB Merging from a child source Node has failed) 31114 (DB Replication of configuration data via ...) 13071 No northbound Provisioning Connections) 10073 (Server Group Max Allowed HA Role Warning) 10075 (Application processes have been manually stopped) 32515 (Server HA Failover Inhibited) 31283 (HA Highly available server failed to receive) 31226 (The High Availability Status is degraded)

August 2026

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
64.	Once the HA Roll changes to Standby Then upgrade status will show Not ready And Max HA status will show as Standby	 
65.	Go to “Main Menu: Status & Manage-> HA” and click on edit and change the MAX HA Role of upgraded server to Active from Standby	 

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
66.	Change the Appl State Disabled to Enabled under “Main Menu: Status & Manage-Server”	 Select the Upgrade server and click on restart then server will move to enabled state 
67. ☐	Active NOAMP VIP: 53. Select the appropriate tab (NO_SG) and select the row containing the hostname of the server that was upgraded. 54. Verify that the Status Message shows Success and Upgrade State is Accept or Reject	 NOTE: If the upgrade status indicates that the server could not restart the application to complete the upgrade and alarm 10134 (Server Upgrade Failed) displays; ensure that replication is up. Use <code>i repstat</code> command on active server and verify status is Active: • The Status changes to Success • Alarm 10134 to clear 

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result																																			
68. ☐	55. If upgrade status still indicates that server could not restart the application to complete the upgrade, restart the server by clicking the Restart. 56. Verify that the Status Message shows Success and Upgrade State is Accept or Reject	Restart server that is being upgraded from Main Menu → Status & Manage→ Server screen Main Menu: Status & Manage -> Server Filter* ▾ <table><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>DR-OCUDR-A</td><td>Site2_NE_DR_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>DR-OCUDR-B</td><td>Site2_NE_DR_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-A</td><td>Site1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-B</td><td>Site1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></table> Stop Restart Reboot NTP Sync Report	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	DR-OCUDR-A	Site2_NE_DR_NO	Enabled	Err	Norm	Norm	Norm	DR-OCUDR-B	Site2_NE_DR_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-A	Site1_NE_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-B	Site1_NE_NO	Enabled	Err	Norm	Norm	Norm
Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc																															
DR-OCUDR-A	Site2_NE_DR_NO	Enabled	Err	Norm	Norm	Norm																															
DR-OCUDR-B	Site2_NE_DR_NO	Enabled	Err	Norm	Norm	Norm																															
OCUDR-A	Site1_NE_NO	Enabled	Err	Norm	Norm	Norm																															
OCUDR-B	Site1_NE_NO	Enabled	Err	Norm	Norm	Norm																															

Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result																																																		
69. ☐	Active NOAMP VIP: Navigate to Main Menu → Status & Manage → HA [Edit]	NOTE: Only perform the following step if Upgrade State is DEGRADED. Change Max Allowed HA Role for server (server that was upgraded) to Active Main Menu: Status & Manage -> HA [Edit] Modifying HA attributes <table><tr><th>Hostname</th><th>Max Allowed HA Role</th><th>Description</th></tr><tr><td>OCUDR-A</td><td>Active v </td><td>The maximum desired HA Role for OCUDR-A</td></tr><tr><td>OCUDR-B</td><td>Active v </td><td>The maximum desired HA Role for OCUDR-B</td></tr><tr><td>DR-OCUDR-A</td><td>Active v </td><td>The maximum desired HA Role for DR-OCUDR-A</td></tr><tr><td>DR-OCUDR-B</td><td>Active v </td><td>The maximum desired HA Role for DR-OCUDR-B</td></tr></table> Restart server from Main Menu->Status & Manage -> Server screen Main Menu: Status & Manage -> Server Filter* v <table><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Aim</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>DR-OCUDR-A</td><td>Site2_NE_DR_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>DR-OCUDR-B</td><td>Site2_NE_DR_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-A</td><td>Site1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-B</td><td>Site1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></table> StopRestartRebootNTP SyncReport	Hostname	Max Allowed HA Role	Description	OCUDR-A	Active v	The maximum desired HA Role for OCUDR-A	OCUDR-B	Active v	The maximum desired HA Role for OCUDR-B	DR-OCUDR-A	Active v	The maximum desired HA Role for DR-OCUDR-A	DR-OCUDR-B	Active v	The maximum desired HA Role for DR-OCUDR-B	Server Hostname	Network Element	Appl State	Aim	DB	Reporting Status	Proc	DR-OCUDR-A	Site2_NE_DR_NO	Enabled	Err	Norm	Norm	Norm	DR-OCUDR-B	Site2_NE_DR_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-A	Site1_NE_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-B	Site1_NE_NO	Enabled	Err	Norm	Norm	Norm
Hostname	Max Allowed HA Role	Description																																																		
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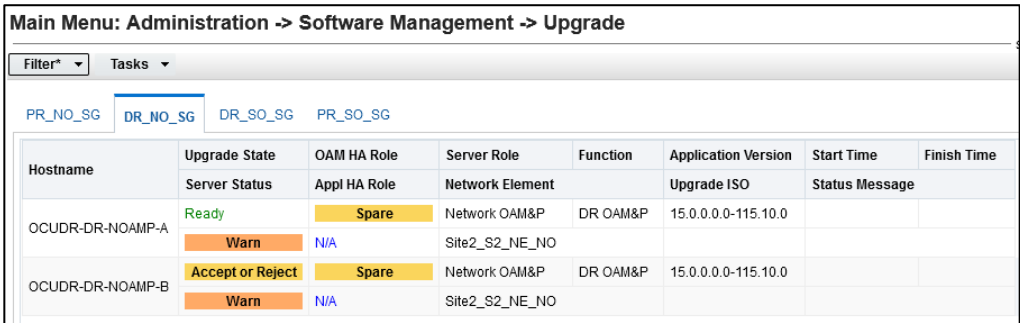
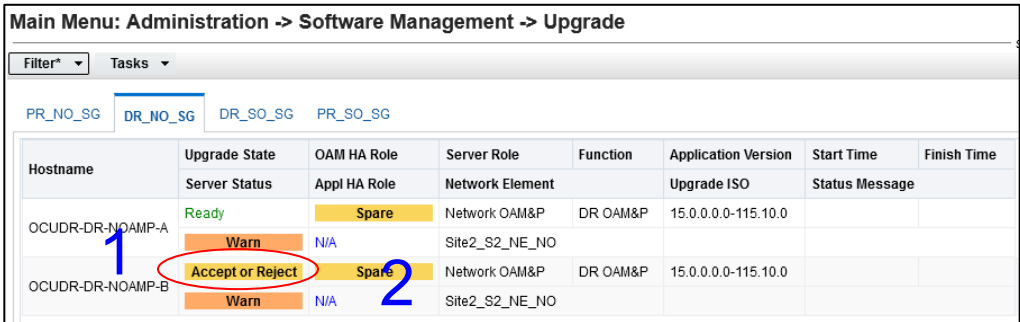
Oracle Communications User Data Repository Software Upgrade Procedure

Step	Procedure	Result
70. ☐	Active NOAMP VIP: View post-upgrade status	View post-upgrade status of the servers. The following alarms may be present. Active NO server has the following expected alarm: Alarm ID is 13071 (No Northbound Provisioning Connections) You may also see the alarm: Alarm ID is 32532 (Server Upgrade Pending Accept/Reject) You may also see this alarm due to DRNO servers Max Allowed HA Role being set to standby in Procedure 7. Alarm ID is 10073 (Server Group Max Allowed HA Role Warning)
71.	Upgrade SOAM and MP	Repeat the steps from steps 5 to 16 to upgrade SOAM and MPs
72. ☐	Active NOAMP VIP: Clear browser cache	JavaScript libraries, images and other objects are often modified in the upgrade. Browsers can cause GUI problems by holding on to the old objects in the built-in cache. To prevent these problems always clear the browser cache before logging in to an NO or SO which has been upgraded: Simultaneously hold down Ctrl-Shift-Delete. Select the appropriate type of objects and delete from the cache. For Internet Explorer the relevant object type is Temporary Internet Files. Other browsers may label these objects differently.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX D. BACKOUT OF A SERVER

Appendix D: Backout of a Server

Step	Procedure	Result
1. ☐	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .
2. ☐	Active NOAMP VIP: Select... Main Menu → Administration → Software Management → Upgrade ...as shown on the right.	
3. ☐	Active NOAMP VIP: 1) Select the tab containing the server to be downgraded. 2) Scroll to the row containing the hostname of the server to be backed-out. 3) Verify that the Upgrade State shows “Accept or Reject”.	

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix D: Backout of a Server

Step	Procedure	Result																		
4. 	Active NOAMP VIP: Make the server ready for downgrade: Select... Main Menu →Status & Manage→HA 1) Press the Edit button 2) Select the server to be downgraded and choose a “Max Allowed Role” value of Standby or Spare for DR servers. 3) Press OK button 4) ** For Active NOAMP only, the user will be logged out after this step due to HA switchover, will need to log back in to continue. The active server will be “standby”	Main Menu: Status & Manage -> HA [Edit] Info* Modifying HA attributes <table><tr><td>OCUDR-DR-NOAMP-A</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-NOAMP-A</td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Standby</td><td>The maximum desired HA Role for OCUDR-DR-NOAMP-B</td></tr><tr><td>OCUDR-DR-SOAM-A</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-SOAM-A</td></tr><tr><td>OCUDR-DR-SOAM-B</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-SOAM-B</td></tr><tr><td>OCUDR-DR-MP3</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-MP3</td></tr><tr><td>OCUDR-DR-MP4</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-MP4</td></tr></table> OkCancel	OCUDR-DR-NOAMP-A	Active	The maximum desired HA Role for OCUDR-DR-NOAMP-A	OCUDR-DR-NOAMP-B	Standby	The maximum desired HA Role for OCUDR-DR-NOAMP-B	OCUDR-DR-SOAM-A	Active	The maximum desired HA Role for OCUDR-DR-SOAM-A	OCUDR-DR-SOAM-B	Active	The maximum desired HA Role for OCUDR-DR-SOAM-B	OCUDR-DR-MP3	Active	The maximum desired HA Role for OCUDR-DR-MP3	OCUDR-DR-MP4	Active	The maximum desired HA Role for OCUDR-DR-MP4
OCUDR-DR-NOAMP-A	Active	The maximum desired HA Role for OCUDR-DR-NOAMP-A																		
OCUDR-DR-NOAMP-B	Standby	The maximum desired HA Role for OCUDR-DR-NOAMP-B																		
OCUDR-DR-SOAM-A	Active	The maximum desired HA Role for OCUDR-DR-SOAM-A																		
OCUDR-DR-SOAM-B	Active	The maximum desired HA Role for OCUDR-DR-SOAM-B																		
OCUDR-DR-MP3	Active	The maximum desired HA Role for OCUDR-DR-MP3																		
OCUDR-DR-MP4	Active	The maximum desired HA Role for OCUDR-DR-MP4																		

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix D: Backout of a Server

Step	Procedure	Result																																																																																																																																																																																						
5. 	Active NOAMP VIP: Select... Main Menu →Status & Manage→ Server 1) Select the server to be downgraded and press STOP 2) Click OK to confirm the operation, then ensure the Appl State updates to Disabled.	Main Menu: Status & Manage -> Server Filter* <table><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>OCUDR-DR-MP3</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-MP4</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-A</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Man</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-A</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-B</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP1</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP2</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-A</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-B</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-A</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-B</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></table> Stop Restart Reboot NTP Sync Report 10.75.180.10 Are you sure you wish to stop application software on the following server(s)? OCUDR-DR-NOAMP-B OK Cancel Main Menu: Status & Manage -> Server Filter* Info* <table><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr><tr><td>OCUDR-DR-MP3</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-MP4</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-A</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Site2_S2_NE_NO</td><td>Disabled</td><td>Warn</td><td>Norm</td><td>Man</td><td>Man</td></tr><tr><td>OCUDR-DR-SOAM-A</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-B</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP1</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP2</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-A</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-B</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-A</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-B</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></table>	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm	OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Enabled	Warn	Norm	Man	Norm	OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm	OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Disabled	Warn	Norm	Man	Man	OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm
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Release 15.1.0.0.0

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix D: Backout of a Server

Step	Procedure	Result																																																
6. 	Active NOAMP VIP: Select ... Main Menu → Administration → Software Management → Upgrade ...as shown on the right.	Main Menu: Administration -> Software Management -> Upgrade Filter* Tasks PR_NO_SG DR_NO_SG DR_SO_SG PR_SO_SG <table><thead><tr><th>Hostname</th><th>Upgrade State</th><th>OAM HA Role</th><th>Server Role</th><th>Function</th><th>Application Version</th><th>Start Time</th><th>Finish Time</th></tr><tr><th></th><th>Server Status</th><th>Appl HA Role</th><th>Network Element</th><th></th><th>Upgrade ISO</th><th>Status Message</th><th></th></tr></thead><tbody><tr><td>OCUDR-DR-NOAMP-A</td><td>Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>15.0.0.0-115.10.0</td><td></td><td></td></tr><tr><td></td><td>Warn</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Backout Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>15.0.0.0-115.10.0</td><td></td><td></td></tr><tr><td></td><td>Warn</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr></tbody></table>	Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	Finish Time		Server Status	Appl HA Role	Network Element		Upgrade ISO	Status Message		OCUDR-DR-NOAMP-A	Ready	Spare	Network OAM&P	DR OAM&P	15.0.0.0-115.10.0				Warn	N/A	Site2_S2_NE_NO					OCUDR-DR-NOAMP-B	Backout Ready	Spare	Network OAM&P	DR OAM&P	15.0.0.0-115.10.0				Warn	N/A	Site2_S2_NE_NO				
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7. 	Active NOAMP VIP: 1) Select the tab containing the server to be downgraded. 2) Scroll to the row containing the hostname of the server to be backed-out. 3) Verify that the Upgrade State shows “Backout Ready”. (It may take a few moments to change status)	Main Menu: Administration -> Software Management -> Upgrade Filter* Tasks PR_NO_SG DR_NO_SG DR_SO_SG PR_SO_SG <table><thead><tr><th>Hostname</th><th>Upgrade State</th><th>OAM HA Role</th><th>Server Role</th><th>Function</th><th>Application Version</th><th>Start Time</th><th>Finish Time</th></tr><tr><th></th><th>Server Status</th><th>Appl HA Role</th><th>Network Element</th><th></th><th>Upgrade ISO</th><th>Status Message</th><th></th></tr></thead><tbody><tr><td>OCUDR-DR-NOAMP-A</td><td>Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>15.0.0.0-115.10.0</td><td></td><td></td></tr><tr><td></td><td>Warn</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Backout Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>15.0.0.0-115.10.0</td><td></td><td></td></tr><tr><td></td><td>Warn</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr></tbody></table>	Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	Finish Time		Server Status	Appl HA Role	Network Element		Upgrade ISO	Status Message		OCUDR-DR-NOAMP-A	Ready	Spare	Network OAM&P	DR OAM&P	15.0.0.0-115.10.0				Warn	N/A	Site2_S2_NE_NO					OCUDR-DR-NOAMP-B	Backout Ready	Spare	Network OAM&P	DR OAM&P	15.0.0.0-115.10.0				Warn	N/A	Site2_S2_NE_NO				
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8. 	Server XMI IP (SSH): SSH to server	Use your SSH client to connect to the server (ex. ssh, putty): ssh<server address>																																																
9. 	Server XMI IP (SSH): Login as admusr user	Login as “admusr”: login as: admusr Password: <enter password> Switch to root su - password: <enter password>																																																

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix D: Backout of a Server

Step	Procedure	Result
10. ☐	Server XMI IP (SSH): Execute the backout	1. Find out the state of the server which is going to be backed out. Server shall be in Standby/Spare. Execute following command to find the HA state: <pre># ha.mystate</pre> NOTE: If the state of the server is Active then follow these steps to move to standby. Go to Main Menu: Status & Manage -> HA Click edit Switch Max Allowed HA role to "standby" 2. Execute the backout using the reject script: <pre># /var/TKLC/backout/diUpgrade --reject</pre> Output: <pre>[root@OCUDR-DR-NOAMP-B admusr]# /var/TKLC/backout/diUpgrade --reject Resuming from state STATE_UPGRADE_APPLIED Transitioning from 'Upgrade Applied' to 'Rejecting Upgrade' Enabling service rebootcheck... ##### # REJECT INITIATED # ##### REJECT START TIME: Sun Oct 1 07:10:32 2023 EDT (11:10:32 UTC) Validating image pre-reject /mnt/upgrade/images/plat_root.tar.gz /mnt/upgrade/images/plat_usr.tar.gz</pre> NOTE: If backout asks if you would like to continue backout, answer "y".
11. ☐	Server XMI IP (SSH): Backout proceeds	Many informational messages will come across the terminal screen as the backout proceeds. Finally, after backout is complete, the server will automatically reboot.
12. ☐	Server XMI IP (SSH): SSH to server and login as root user	Use your SSH client to connect to the server (ex. ssh, putty): <pre>ssh<server address></pre> login as: admusr password: <enter password> Switch to root su - password: <enter password>

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Appendix D: Backout of a Server

Step	Procedure	Result
13.	Server XMI IP (SSH):	Note: Steps 13 and 14 are not required in case of rollback from OL8 based TPD server to OL6 based TPD server These Steps are required only for OL8 to OL8 Upgrade Before proceeding to run restore command please verify the status of roll back with the command "tail -f /var/TKLC/appw/logs/Process/upgrade.log" If reject is completed successfully then proceed with the restore or else wait for it complete. Perform the backout_restore utility to restore the full database run environment: <pre>1. sudo /usr/TKLC/appworks/sbin/backout_restore</pre> NOTE: If asked if you would like to proceed, answer y. If the restore was successful, the following message is displayed: Success: Full restore of COMCOL run env has completed. Return to the backout procedure document for further instruction.
14.	Server XMI IP (SSH):	Enter the following command to reboot the server. If logged in as admusr, it is necessary to use sudo. <pre># init 6</pre> This step takes several minutes and terminates the SSH session.
15. ☐	Server XMI IP (SSH): Verify services restart	If this is an NOAMP or SOAM server, verify httpd service is running. Execute the command: # <code>service httpd status</code> Verify expected output displays httpd is running (the process IDs are variable so the list of numbers can be ignored): httpd<process IDs will be listed here> is running... If httpd is still not running after ~3 minutes, then services have failed to restart. Exit from the command line of backed-out server. # <code>exit</code>
16. ☐	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .

Oracle Communications User Data Repository Software Upgrade Procedure

Appendix D: Backout of a Server

Step	Procedure	Result																																																
17. 	Active NOAMP VIP: Verify server states: Select... Main Menu → Administration → Software Management → Upgrade ...as shown on the right.	Main Menu: Administration -> Software Management -> Upgrade Filter* Tasks PR_NO_SG DR_NO_SG DR_SO_SG PR_SO_SG <table><thead><tr><th>Hostname</th><th>Upgrade State</th><th>OAM HA Role</th><th>Server Role</th><th>Function</th><th>Application Version</th><th>Start Time</th><th>Finish Time</th></tr><tr><th></th><th>Server Status</th><th>Appl HA Role</th><th>Network Element</th><th></th><th>Upgrade ISO</th><th>Status Message</th><th></th></tr></thead><tbody><tr><td>OCUDR-DR-NOAMP-A</td><td>Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>15.0.0.0-115.10.0</td><td></td><td></td></tr><tr><td></td><td>Warn</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Not Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>12.11.0.0_111.2.0</td><td></td><td></td></tr><tr><td></td><td>Warn</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr></tbody></table> If the state is Ready, you are finished with procedure. If the state is “Not Ready”, continue to next step.	Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	Finish Time		Server Status	Appl HA Role	Network Element		Upgrade ISO	Status Message		OCUDR-DR-NOAMP-A	Ready	Spare	Network OAM&P	DR OAM&P	15.0.0.0-115.10.0				Warn	N/A	Site2_S2_NE_NO					OCUDR-DR-NOAMP-B	Not Ready	Spare	Network OAM&P	DR OAM&P	12.11.0.0_111.2.0				Warn	N/A	Site2_S2_NE_NO				
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18.	Active NOAMP VIP: Correct Upgrade State on downgraded server Select... Main Menu Status & Manage→HA[Edit] Select the downgraded server and choose a Max Allowed HA Role value of Active (Press the Ok button). Verify the Max Allowed HA Role is set to the desired value for the server.	Due to backout being initiated from the command line instead of through the GUI, you will have to modify the downgraded server, so its Upgrade State moves to Ready. Main Menu: Status & Manage -> HA [Edit] Info* Modifying HA attributes <table><tbody><tr><td>OCUDR-DR-NOAMP-B</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-NOAMP-B</td></tr><tr><td>OCUDR-DR-SOAM-A</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-SOAM-A</td></tr><tr><td>OCUDR-DR-SOAM-B</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-SOAM-B</td></tr><tr><td>OCUDR-DR-MP3</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-MP3</td></tr><tr><td>OCUDR-DR-MP4</td><td>Active</td><td>The maximum desired HA Role for OCUDR-DR-MP4</td></tr></tbody></table> Ok Cancel	OCUDR-DR-NOAMP-B	Active	The maximum desired HA Role for OCUDR-DR-NOAMP-B	OCUDR-DR-SOAM-A	Active	The maximum desired HA Role for OCUDR-DR-SOAM-A	OCUDR-DR-SOAM-B	Active	The maximum desired HA Role for OCUDR-DR-SOAM-B	OCUDR-DR-MP3	Active	The maximum desired HA Role for OCUDR-DR-MP3	OCUDR-DR-MP4	Active	The maximum desired HA Role for OCUDR-DR-MP4																																	
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Oracle Communications User Data Repository Software Upgrade Procedure

Appendix D: Backout of a Server

Step	Procedure	Result																																																																																											
19.	Active NOAMP VIP: Correct Upgrade State on downgraded server Select... Main Menu Status & Manage→Server Select the downgraded server and enable it by clicking on “Restart” button.	Main Menu: Status & Manage -> Server Filter* <table><thead><tr><th>Server Hostname</th><th>Network Element</th><th>Appl State</th><th>Alm</th><th>DB</th><th>Reporting Status</th><th>Proc</th></tr></thead><tbody><tr><td>OCUDR-DR-MP3</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-MP4</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-A</td><td>Site2_S2_NE_NO</td><td>Enabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Site2_S2_NE_NO</td><td>Disabled</td><td>Warn</td><td>Norm</td><td>Norm</td><td>Man</td></tr><tr><td>OCUDR-DR-SOAM-A</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-DR-SOAM-B</td><td>Site2_S2_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP1</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-MP2</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-A</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Err</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-NOAMP-B</td><td>Site1_S1_NE_NO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-A</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr><tr><td>OCUDR-SOAM-B</td><td>Site1_S1_NE_SO</td><td>Enabled</td><td>Norm</td><td>Norm</td><td>Norm</td><td>Norm</td></tr></tbody></table> Stop Restart Reboot NTP Sync Report	Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc	OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm	OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Disabled	Warn	Norm	Norm	Man	OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm	OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm	OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm
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20.	Active NOAMP VIP: Select Main Menu Administration→Software Management→Upgrade; Select the tab of the server group containing the server to be downgraded. Verify its Upgrade State is now “Ready”. (It might take a couple minutes for the grid to update.)	Main Menu: Administration -> Software Management -> Upgrade Filter* Tasks PR_NO_SG DR_NO_SG DR_SO_SG PR_SO_SG <table><thead><tr><th>Hostname</th><th>Upgrade State</th><th>OAM HA Role</th><th>Server Role</th><th>Function</th><th>Application Version</th><th>Start Time</th><th>Finish Time</th></tr><tr><th></th><th>Server Status</th><th>Appl HA Role</th><th>Network Element</th><th></th><th>Upgrade ISO</th><th>Status Message</th><th></th></tr></thead><tbody><tr><td>OCUDR-DR-NOAMP-A</td><td>Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>15.0.0.0.0-115.10.0</td><td></td><td></td></tr><tr><td></td><td>Warn</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr><tr><td>OCUDR-DR-NOAMP-B</td><td>Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>12.11.0.0.0_111.2.0</td><td></td><td></td></tr><tr><td></td><td>Norm</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr></tbody></table>	Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	Finish Time		Server Status	Appl HA Role	Network Element		Upgrade ISO	Status Message		OCUDR-DR-NOAMP-A	Ready	Spare	Network OAM&P	DR OAM&P	15.0.0.0.0-115.10.0				Warn	N/A	Site2_S2_NE_NO					OCUDR-DR-NOAMP-B	Ready	Spare	Network OAM&P	DR OAM&P	12.11.0.0.0_111.2.0				Norm	N/A	Site2_S2_NE_NO																																															
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21.	Verify application version	Verify the Application Version value for this server has been downgraded to the original release version.																																																																																											
THIS PROCEDURE HAS BEEN COMPLETED																																																																																													

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX E. UPGRADE ACCEPTANCE

The upgrade needs either to be accepted or rejected before any subsequent upgrades are performed in the future.

The Alarm 32532 (Server Upgrade Pending Accept/Reject) will be displayed for each server until one of these two actions (accept or reject) is performed.

An upgrade should be accepted only after it was determined to be successful as “accept” is final. This frees up file storage but prevents a backout from the previous upgrade.



NOTE: Once the upgrade is accepted for a server, that server will not be allowed to backout to previous release from which the upgrade was done

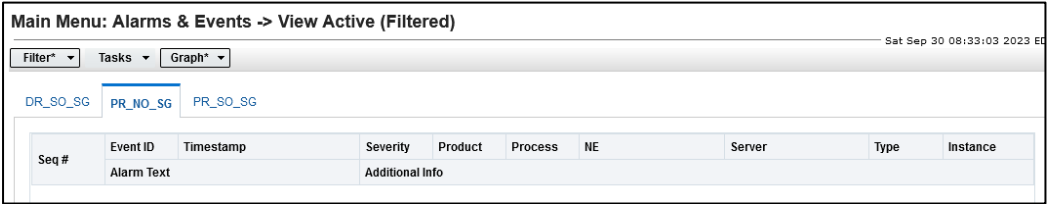
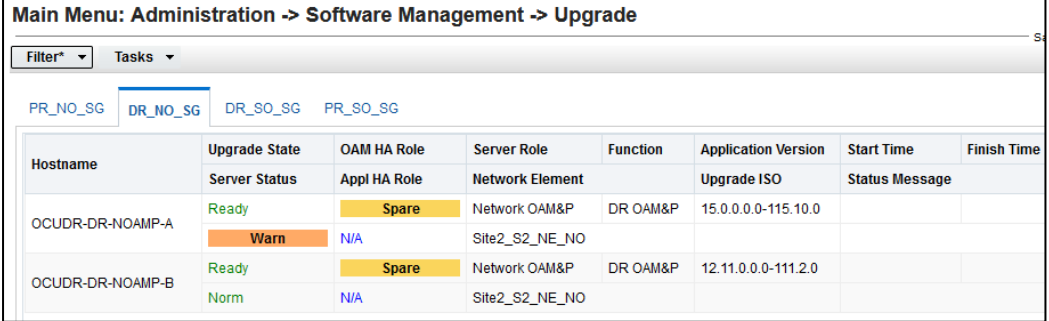
The following procedure details how to accept a successful upgrade of Oracle Communications User Data Repository system.

Procedure 13: Accept Upgrade

Step	Procedure	Result																																														
1. 	Using the VIP IP, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																																														
2. 	Active NOAMP VIP: Select... Main Menu → Administration → Software Management → Upgrade ...as shown on the right.	Main Menu: Administration -> Software Management -> Upgrade Filter* Tasks PR_NO_SG DR_NO_SG DR_SO_SG PR_SO_SG <table><thead><tr><th>Hostname</th><th>Upgrade State</th><th>OAM HA Role</th><th>Server Role</th><th>Function</th><th>Application Version</th><th>Start Time</th><th>Finish Time</th></tr><tr><th></th><th>Server Status</th><th>Appl HA Role</th><th>Network Element</th><th></th><th>Upgrade ISO</th><th>Status Message</th><th></th></tr></thead><tbody><tr><td rowspan="2">OCUDR-DR-NOAMP-A</td><td>Accept or Reject</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>15.0.0.0-115.10.0</td><td></td><td></td></tr><tr><td>Warn</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr><tr><td rowspan="2">OCUDR-DR-NOAMP-B</td><td>Ready</td><td>Spare</td><td>Network OAM&P</td><td>DR OAM&P</td><td>12.11.0.0-111.2.0</td><td></td><td></td></tr><tr><td>Norm</td><td>N/A</td><td>Site2_S2_NE_NO</td><td></td><td></td><td></td><td></td></tr></tbody></table>	Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	Finish Time		Server Status	Appl HA Role	Network Element		Upgrade ISO	Status Message		OCUDR-DR-NOAMP-A	Accept or Reject	Spare	Network OAM&P	DR OAM&P	15.0.0.0-115.10.0			Warn	N/A	Site2_S2_NE_NO					OCUDR-DR-NOAMP-B	Ready	Spare	Network OAM&P	DR OAM&P	12.11.0.0-111.2.0			Norm	N/A	Site2_S2_NE_NO				
Hostname	Upgrade State	OAM HA Role	Server Role	Function	Application Version	Start Time	Finish Time																																									
	Server Status	Appl HA Role	Network Element		Upgrade ISO	Status Message																																										
OCUDR-DR-NOAMP-A	Accept or Reject	Spare	Network OAM&P	DR OAM&P	15.0.0.0-115.10.0																																											
	Warn	N/A	Site2_S2_NE_NO																																													
OCUDR-DR-NOAMP-B	Ready	Spare	Network OAM&P	DR OAM&P	12.11.0.0-111.2.0																																											
	Norm	N/A	Site2_S2_NE_NO																																													
3. 	Accept upgrade for selected server(s) by running accept upgrade command on console.	<pre># /var/TKLC/backout/diUpgrade --accept Running postAccept() for DIUpgrade::Policy::P50APPudr upgrade policy... Creating alarm script: /tmp/6SryxZbdWk ##### # ACCEPT COMPLETE # ##### Check is rebootcheck is enabled ... Disabling service rebootcheck... Transitioning from 'Accepting Upgrade' to 'No Upgrade Available' Cleaning backout directory. [root@OCUDR-DR-NOAMP-A admusr]#</pre> Note: Once upgrade is accepted, the servers will not be able to revert to their previous image states.																																														

Oracle Communications User Data Repository Software Upgrade Procedure

Procedure 13: Accept Upgrade

Step	Procedure	Result
4. ☐	Active NOAMP VIP: Accept upgrade of the rest of the system	Accept Upgrade on all remaining servers in the Oracle Communications User Data Repository system: Repeat all sub-steps of step 3 of this procedure on remaining servers until the upgrade of all servers in the Oracle Communications User Data Repository system has been accepted. Note: As upgrade is accepted on each server the corresponding Alarm ID 32532 (Server Upgrade Pending Accept/Reject) should be removed.
5. ☐	Active NOAMP VIP: Verify accept	Check that alarms are removed: Navigate to this GUI page Alarms & Events > View Active  Verify that Alarm ID 32532 (Server Upgrade Pending Accept/Reject) is not displayed under active alarms on Oracle Communications User Data Repository system
6. ☐	Active NOAMP VIP: Select... Main Menu → Administration → Software Management → Upgrade ...as shown on the right.	Verify server status is "Ready and Application version is updated". 
7. ☐	Active NOAMP VIP: Configure services	Run the procedure specified in Appendix G: Configuring Services for Dual Path HA.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX F. VERIFYING SERVERS ARE SYNCHRONIZED

Step	Procedure	Result																																																																																																																																															
1.	Active NOAMP VIP: Confirm Servers are in sync prior to upgrading the next server Main Menu → Status & Manage → Database 1) Repl Status should be “allowed” 2) The DB Levels should be the same or close in numbers.	Main Menu: Status & Manage -> Database Sat Sep 30 04:11:36 2023 Filter* Info* Tasks <table><tr><th>Network Element</th><th>Server</th><th>Role</th><th>OAM Max HA Role</th><th>Application Max HA Role</th><th>Status</th><th>DB Level</th><th>OAM Repl Status</th><th>SIG Repl Status</th><th>Repl Status</th><th>Repl Audit Status</th></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-A</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-B</td><td>Network OAM&P</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-A</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP1</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_NO</td><td>OCUDR-DR-NOAMP-B</td><td>Network OAM&P</td><td>Spare</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-A</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-SOAM-B</td><td>System OAM</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP4</td><td>MP</td><td>Standby</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_NO</td><td>OCUDR-NOAMP-A</td><td>Network OAM&P</td><td>Active</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-SOAM-B</td><td>System OAM</td><td>Standby</td><td>N/A</td><td>Normal</td><td>0</td><td>Normal</td><td>NotApplicable</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site1_S1_NE_SO</td><td>OCUDR-MP2</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr><tr><td>Site2_S2_NE_SO</td><td>OCUDR-DR-MP3</td><td>MP</td><td>Active</td><td>Active</td><td>Normal</td><td>0</td><td>Normal</td><td>Normal</td><td>Allowed</td><td>NotApplicable</td></tr></table>	Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status	Site2_S2_NE_NO	OCUDR-DR-NOAMP-A	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-A	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-SOAM-A	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-MP4	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-SOAM-B	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable	Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable	Site2_S2_NE_SO	OCUDR-DR-MP3	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable
Network Element	Server	Role	OAM Max HA Role	Application Max HA Role	Status	DB Level	OAM Repl Status	SIG Repl Status	Repl Status	Repl Audit Status																																																																																																																																							
Site2_S2_NE_NO	OCUDR-DR-NOAMP-A	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site1_S1_NE_NO	OCUDR-NOAMP-B	Network OAM&P	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site1_S1_NE_SO	OCUDR-SOAM-A	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site1_S1_NE_SO	OCUDR-MP1	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							
Site2_S2_NE_NO	OCUDR-DR-NOAMP-B	Network OAM&P	Spare	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-SOAM-A	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site1_S1_NE_SO	OCUDR-SOAM-B	System OAM	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-MP4	MP	Standby	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							
Site1_S1_NE_NO	OCUDR-NOAMP-A	Network OAM&P	Active	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-SOAM-B	System OAM	Standby	N/A	Normal	0	Normal	NotApplicable	Allowed	NotApplicable																																																																																																																																							
Site1_S1_NE_SO	OCUDR-MP2	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							
Site2_S2_NE_SO	OCUDR-DR-MP3	MP	Active	Active	Normal	0	Normal	Normal	Allowed	NotApplicable																																																																																																																																							

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX G. CONFIGURING SERVICES FOR DUAL PATH HA

This Appendix provides the procedure for updating Oracle Communications User Data Repository Services for the Dual Path HA feature. This applies to all configurations that make use of a Secondary/DR Site.

Step	This procedure verifies that all required materials are present. Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.																									
1. ☐	Using the VIP address, access the Primary NOAMP GUI.	Access the Primary NOAMP GUI as specified in Appendix A .																								
2. ☐	Active NOAMP VIP: Select... Main Menu → Configuration → Networking → Services ...as shown on the right.	Main Menu: Configuration -> Networking -> Services <table><thead><tr><th>Name</th><th>Intra-NE Network</th><th>Inter-NE Network</th></tr></thead><tbody><tr><td>OAM</td><td>IMI</td><td>XMI</td></tr><tr><td>Replication</td><td>IMI</td><td>XMI</td></tr><tr><td>Signaling</td><td>XSI1</td><td>XSI1</td></tr><tr><td>HA_Secondary</td><td>IMI</td><td>XSI1</td></tr><tr><td>HA_MP_Secondary</td><td>IMI</td><td>XMI</td></tr><tr><td>Replication_MP</td><td>IMI</td><td>XMI</td></tr><tr><td>ComAgent</td><td>IMI</td><td>XSI1</td></tr></tbody></table>	Name	Intra-NE Network	Inter-NE Network	OAM	IMI	XMI	Replication	IMI	XMI	Signaling	XSI1	XSI1	HA_Secondary	IMI	XSI1	HA_MP_Secondary	IMI	XMI	Replication_MP	IMI	XMI	ComAgent	IMI	XSI1
Name	Intra-NE Network	Inter-NE Network																								
OAM	IMI	XMI																								
Replication	IMI	XMI																								
Signaling	XSI1	XSI1																								
HA_Secondary	IMI	XSI1																								
HA_MP_Secondary	IMI	XMI																								
Replication_MP	IMI	XMI																								
ComAgent	IMI	XSI1																								

Oracle Communications User Data Repository Software Upgrade Procedure

3.

Active NOAMP VIP:

1) Change Service value as shown below:

**Inter-NE
HA_Secondary →
XSI1**

2) Select the “**Apply**” dialogue button.

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

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

Services

Name	Intra-NE Network	Inter-NE Network
OAM	IMI	XMI
Replication	IMI	XMI
Signaling	XSI1	XSI1
HA_Secondary	IMI	XSI1
HA_MP_Secondary	IMI	XMI
Replication_MP	IMI	XMI
ComAgent	IMI	XSI1

Ok

Apply

Cancel

You must restart all Servers to apply any services changes, ComAgent

OK

Cancel

NOAMP and MP Servers need to be restarted.

4.

Active NOAMP VIP:

The user will be presented with the “**Services**” configuration screen as shown on the right

Main Menu: Configuration -> Networking -> Services

Name	Intra-NE Network	Inter-NE Network
OAM	IMI	XMI
Replication	IMI	XMI
Signaling	XSI1	XSI1
HA_Secondary	IMI	XSI1
HA_MP_Secondary	IMI	XMI
Replication_MP	IMI	XMI
ComAgent	IMI	XSI1

Oracle Communications User Data Repository Software Upgrade Procedure

5.

Restart Reboot all NOAMP and MP Servers

Reboot all NOAMP and MP servers either by the Active NOAMP GUI's Status & Manage -> Server screen with the **Reboot** button:

Main Menu: Status & Manage -> Server

Filter*

Server Hostname	Network Element	Appl State	Alm	DB	Reporting Status	Proc
OCUDR-DR-MP3	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm
OCUDR-DR-MP4	Site2_S2_NE_SO	Enabled	Err	Norm	Norm	Norm
OCUDR-DR-NOAMP-A	Site2_S2_NE_NO	Enabled	Warn	Norm	Norm	Norm
OCUDR-DR-NOAMP-B	Site2_S2_NE_NO	Enabled	Norm	Norm	Norm	Norm
OCUDR-DR-SOAM-A	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm
OCUDR-DR-SOAM-B	Site2_S2_NE_SO	Enabled	Norm	Norm	Norm	Norm
OCUDR-MP1	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm
OCUDR-MP2	Site1_S1_NE_SO	Enabled	Err	Norm	Norm	Norm
OCUDR-NOAMP-A	Site1_S1_NE_NO	Enabled	Err	Norm	Norm	Norm
OCUDR-NOAMP-B	Site1_S1_NE_NO	Enabled	Norm	Norm	Norm	Norm
OCUDR-SOAM-A	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm
OCUDR-SOAM-B	Site1_S1_NE_SO	Enabled	Norm	Norm	Norm	Norm

Stop

Restart

Reboot

NTP Sync

Report

Or on the terminal of each server with the reboot command:

\$ sudo reboot

Note: This should be executed on all NOAMPs and MPs.

THIS PROCEDURE HAS BEEN COMPLETED

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX H. RESIZING VM GUEST DISK FOR UPGRADE

H.1 Resizing VM Guest disk for upgrade on Openstack

Step	Procedure	Result
1. 	Login to cloud home page.	 openstack.® Log in User Name Password Domain Sign In

Oracle Communications User Data Repository Software Upgrade Procedure

2.

Go to instance page and shut off instance

☐	OCUDR-12.11.0-DR-noa	UDR-1 2.11_1 11.2.0	int-imi 10.10.2.157 ext-net 10.75.180.18	udr-7k-no	-	Active		nova	None	Running	1 day, 3 hours	Create Snapshot
☐	OCUDR-12.11.0-DR-mp1	UDR-1 2.11_1 11.2.0	int-imi 10.10.2.38 int-xsi2 10.10.4.217 int-xsi1 10.10.3.207 ext-net 10.75.180.114	udr-7k-mp	-	Active		nova	None	Running	1 day, 3 hours	
☐	OCUDR-12.11.0-DR-soa	UDR-1 2.11_1 11.2.0	int-imi 10.10.2.58 ext-net 10.75.180.215	udr-7k-so	-	Active		nova	None	Running	1 day, 3 hours	
☐	OCUDR-12.11.0-DR-sob	UDR-1 2.11_1 11.2.0	ext-net 10.75.180.32 int-imi 10.10.2.151	udr-7k-so	-	Active		nova	None	Running	1 day, 3 hours	
☐	OCUDR-12.11.0-n	UDR-1 2.11_1 11.2.0	int-xsi1 10.10.3.30 int-imi 10.10.2.96	udr-7k-no	-	Active		nova	None	Running	1 day, 4 hours	

Confirm Shut Off Instance

You have selected: "OCUDR-12.11.0-DR-noa". Please confirm your selection. The instance(s) will be shut off.

Cancel

Shut Off Instance

☐	OCUDR-12.11.0-DR-noa	UDR-12 2.11_1 11.2.0	int-xsi1 10.10.3.204 int-imi 10.10.2.157 ext-net 10.75.180.18	udr-7k-no	-	Active		nova		Running	1 day, 4 hours	Create Snapshot
--------------------------	----------------------	----------------------	---	-----------	---	--------	--	------	--	---------	----------------	-----------------

3.

Select the instance and resize using 'Resize Instance' option.

☒	OCUDR-12.11.0-DR-noa	UDR-1 2.11_1 11.2.0	int-xsi1 10.10.3.204 int-imi 10.10.2.157 ext-net 10.75.180.18	udr-7k-no	-	Shutoff		nova	None	Shut Down	1 day, 4 hours	Start Instance
☐	OCUDR-12.11.0-DR-mp1	UDR-1 2.11_1 11.2.0	int-imi 10.10.2.38 int-xsi2 10.10.4.217 int-xsi1 10.10.3.207 ext-net 10.75.180.114	udr-7k-mp	-	Active		nova	None	Running	1 day, 4 hours	
☐	OCUDR-12.11.0-DR-soa	UDR-1 2.11_1 11.2.0	int-imi 10.10.2.58 ext-net 10.75.180.215	udr-7k-so	-	Active		nova	None	Running	1 day, 4 hours	

Create Snapshot

Associate Floating IP

Attach Interface

Detach Interface

Edit Instance

Update Metadata

Edit Port Security Groups

Shelve Instance

Resize Instance

Lock Instance

Hard Reboot Instance

Rebuild Instance

Delete Instance

Oracle Communications User Data Repository Software Upgrade Procedure

4.

Please specify the new flavor that has 50 GB disk more than existing flavor used. And press 'Resize'

Old Flavor

udr-7k-no

New Flavor

udr-no-7k-diu

Flavor Details

Name	udr-no-7k-diu
VCPUs	8
Root Disk	500 GB
Ephemeral Disk	0 GB
Total Disk	500 GB
RAM	32,768 MB

Project Limits

Number of Instances

of Used

Number of VCPUs

of Used

Total RAM

of MB Used

Cancel

Resize

OCUDR-12.11.0-DR-noa

UDR-12.11_11.2.0

int-xsi110.10.3.204

int-imi10.10.2.157

ext-net10.75.180.18

udr-7k-no

-

Resize/Migrate

nova

Resizing or Migrating

Shut Down

1 day, 4 hours

Associate Floating IP

5.

Click on 'Confirm Resize Migrate' button and start instance

OCUDR-12.11.0-DR-noa

UDR-12.11_11.2.0

int-xsi110.10.3.204

int-imi10.10.2.157

ext-net10.75.180.18

udr-no-7k-diu

-

Confirm or Revert Resize/Migrate

nova

None

Shut Down

1 day, 4 hours

Confirm Resize/Migrate

OCUDR-12.11.0-DR-noa

UDR-12.11_11.2.0

int-xsi110.10.3.204

int-imi10.10.2.157

ext-net10.75.180.18

udr-no-7k-diu

-

Shutoff

nova

None

Shut Down

1 day, 4 hours

Start Instance

OCUDR-12.11.0-DR-noa

UDR-12.11_11.2.0

int-xsi110.10.3.204

int-imi10.10.2.157

ext-net10.75.180.18

udr-no-7k-diu

-

Active

nova

None

Running

1 day, 4 hours

Create Snapshot

Oracle Communications User Data Repository Software Upgrade Procedure

6.	Login to console of instance and execute the listed commands	# fdisk -c /dev/vda Note: Device name may differ from vda to some other name like sda, vdb, vdc etc.. ➔ Press letter 'm' (It will display all possible operations) ➔ Press letter 'n' (To add a new partition) ➔ Press letter 'p' (Primary extension) ➔ Press number '3' (Enter 3 or 4 as partition number or provide default choice) ➔ It will ask for sector value, provide default value as input) ➔ It will ask for size, provide '+50G' (To add 50GB, it depends upon VM flavor) Note: If we get error like "Value Out of Range" for above step then provide "+49G" instead of "+50G" Example : vg size will become 150GB , if the previous size is 100GB ➔ Press letter 't' (To change a partition's system id) ➔ Provide partition number which we have created in earlier step ➔ It will ask for HEX Code, enter '8e' ➔ Press letter 'w' (write table to disk and exit) Example: <pre>[root@OCUDR-DR-NOAMP-A filemgmt]# fdisk -c /dev/vda WARNING: cylinders as display units are deprecated. Use command 'u' to change units to sectors. Command (m for help): n Command action e extended p primary partition (1-4) p Partition number (1-4): 3 First cylinder (832204-1040253, default 832204): Using default value 832204 Last cylinder, +cylinders or +size{K,M,G} (832204-1040253, default 1040253): +50G Command (m for help): t Partition number (1-4): 3 Hex code (type L to list codes): 8e Changed system type of partition 3 to 8e (Linux LVM) Command (m for help): w The partition table has been altered! Calling ioctl() to re-read partition table. WARNING: Re-reading the partition table failed with error 16: Device or resource busy. The kernel still uses the old table. The new table will be used at the next reboot or after you run partprobe(8) or kpartx(8) Syncing disks. [root@OCUDR-DR-NOAMP-A filemgmt]# reboot</pre>
7.	After step-6, reboot the instance	# reboot

Oracle Communications User Data Repository Software Upgrade Procedure

8.	After reboot, create physical volume and extend the volume group using it	Note: Once partition is done then create physical volum using pvcreate command but after reboot. # pvcreate <new physical volum name> Example: pvcreate /dev/vda3 # vgextend <vgname> <physical volume name> Example: vgextend vgroot /dev/vda3 <pre>[root@OCUDR-DR-NOAMP-A admusr]# pvs PV VG Fmt Attr PSize PFree /dev/vda2 vgroot lvm2 a--u 399.47g 117.62g [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# pvcreate /dev/vda3 Physical volume "/dev/vda3" successfully created [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# vgextend vgroot /dev/vda3 Volume group "vgroot" successfully extended [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# vgs VG #PV #LV #SN Attr VSize VFree vgroot 2 11 0 wz--n- 449.44g 167.59g [root@OCUDR-DR-NOAMP-A admusr]#</pre> Note: For knowledge. • use vgs command to know the vg name • use fdisk -l /dev/vda command to know the partition name which we have created in above step.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

H.2 Resizing VM Guest disk for upgrade on VMWare

Step	Procedure	Result
17. 	Login to VMWare home page.	Welcome to VMware Cloud Director You are about to sign in to Oracle. User name: Password: SIGN IN 

Oracle Communications User Data Repository Software Upgrade Procedure

18. Go to vm page and shut off vm for which disk size needs to be updated

vmw

VMware Cloud Director

Data Centers

Applications

Networking

Virtual Applications

Virtual Machines

Find by: Name

ADVANCED FILTERING

71 Virtual Machines

NEW VM

UDR

Powered on

VM Console

Runtime leaseNever Suspends

Created On04/03/2023, 04:25:44 PM

Owner

siddhartha.p.pandey@oracle.c...

vApp-

OSOracle Linux 6 (64-bit)

CPU12

Storage564 GB

Memory64 GB

Networks

occne4-alberto-navarrete-b...

Powered on

VM Console

Runtime leaseNever Suspends

Created On09/05/2023, 10:03:00 PM

Owner

alberto.navarrete

vAppoccne4-alberto-navarrete

OSOracle Linux 8 (64-bit)

CPU1

Storage36 GB

Memory4 GB

Networks

All Virtual Machines

Site: Morrisville

Organization: Oracle

Data center: vCNE

Compute

vApps

Virtual Machines

Affinity Rules

Networking

Networks

Edges

Storage

Named Disks

Storage Policies

Settings

UDR

Powered on

POWER ON

POWER OFF

LAUNCH WEB CONSOLE

LAUNCH REMOTE CONSOLE

ALL ACTIONS

General

Security Tags

Hardware

Removable Media

Hard Disks

Compute

Advanced

NICs

Guest OS

Customization

EDIT

Name

UDR

State

Powered on

Computer Name

UDR

Description

Testing purpose

Operating System

Oracle Linux 6 (64-bit)

Boot Delay

0

Storage Policy

*

All Virtual Machines

UDR

UDR

Powered off

POWER ON

POWER OFF

LAUNCH WEB CONSOLE

LAUNCH REMOTE CONSOLE

ALL ACTIONS

General

Security Tags

Hardware

Removable Media

Hard Disks

Compute

Advanced

NICs

Guest OS

Customization

EDIT

Name

UDR

State

Powered off

Computer Name

UDR

Description

Testing purpose

Operating System

Oracle Linux 6 (64-bit)

Boot Delay

0

Storage Policy

*

Oracle Communications User Data Repository Software Upgrade Procedure

19.

Select the 'Hard disk' and edit using 'Edit' option.

All Virtual Machines > UDR

UDR

Powered off

POWER ON

POWER OFF

LAUNCH WEB CONSOLE

LAUNCH REMOTE CONSOLE

ALL ACTIONS

General

Security Tags

Hardware

Removable Media

Hard Disks

Compute

Advanced

NICs

Guest OS

Customization

VM Storage Policy

EDIT

Index	Name	Shared	Size	Policy	IOPS	Bus Type	Bus Number	Unit Number
0	-	No	400 GB	VM default poli...	0	Paravirtual (SC...	0	0

Edit Hard Disks for UDR

ADD

Index	Name	Shared	Size	Policy	IOPS	Bus Type	Bus Number	Unit Number
0	-	No	400 GB	VM def	Not Applicable	Paravirtual (SCSI)	0	0

DISCARD

SAVE

20.

Please specify the new disk size And press 'Save' button

Edit Hard Disks for UDR

ADD

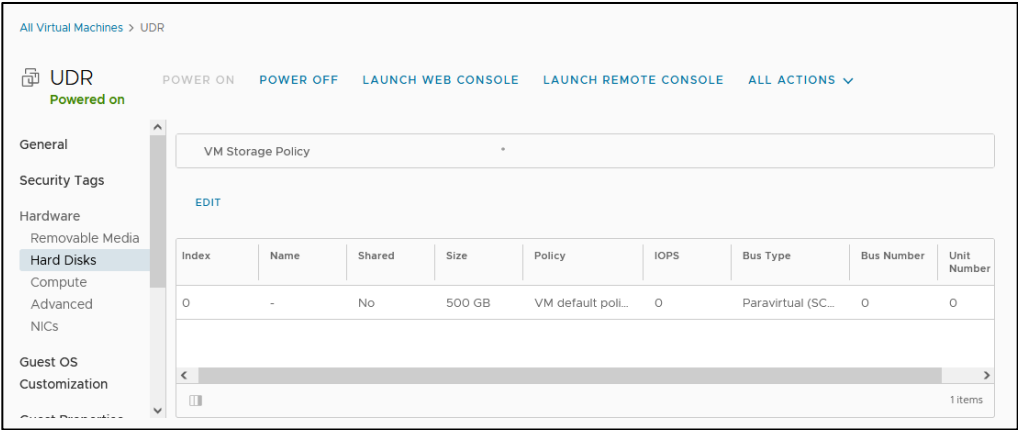
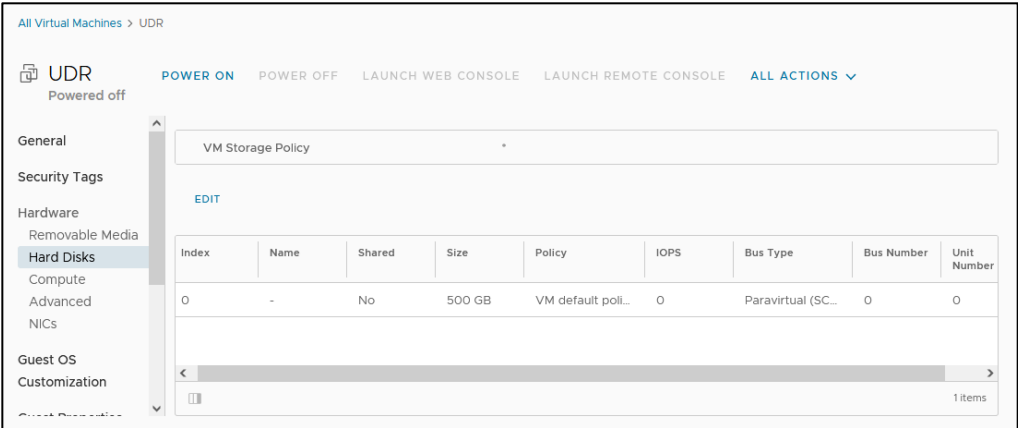
Index	Name	Shared	Size	Policy	IOPS	Bus Type	Bus Number	Unit Number
0	-	No	500 GB	VM def	Not Applicable	Paravirtual (SCSI)	0	0

DISCARD

SAVE

Oracle Communications User Data Repository Software Upgrade Procedure

21. Click on 'Power ON' button to start VM



Oracle Communications User Data Repository Software Upgrade Procedure

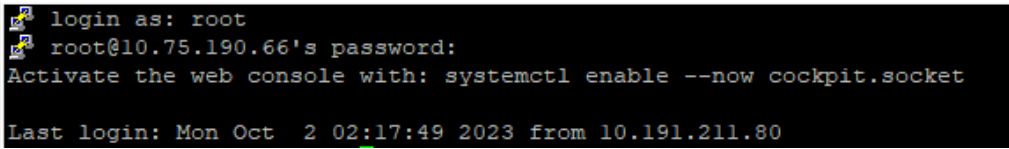
22.	Login to console of instance and execute the listed commands	# fdisk -c /dev/vda Note: Device name may differ from vda to some other name like sda, vdb, vdc etc.. ➔ Press letter 'm' (It will display all possible operations) ➔ Press letter 'n' (To add a new partition) ➔ Press letter 'p' (Primary extension) ➔ Press number '3' (Enter 3 or 4 as partition number or provide default choice) ➔ It will ask for sector value, provide default value as input) ➔ It will ask for size, provide '+50G' (To add 50GB, it depends upon VM flavor) Note: If we get error like “Value Out of Range” for above step then provide “+49G” instead of “+50G” Example : vg size will become 150GB , if the previous size is 100GB ➔ Press letter 't' (To change a partition's system id) ➔ Provide partition number which we have created in earlier step ➔ It will ask for HEX Code, enter '8e' ➔ Press letter 'w' (write table to disk and exit) Example: <pre>[root@OCUDR-DR-NOAMP-A filemgmt]# fdisk -c /dev/vda WARNING: cylinders as display units are deprecated. Use command 'u' to change units to sectors. Command (m for help): n Command action e extended p primary partition (1-4) p Partition number (1-4): 3 First cylinder (832204-1040253, default 832204): Using default value 832204 Last cylinder, +cylinders or +size{K,M,G} (832204-1040253, default 1040253): +50G Command (m for help): t Partition number (1-4): 3 Hex code (type L to list codes): 8e Changed system type of partition 3 to 8e (Linux LVM) Command (m for help): w The partition table has been altered! Calling ioctl() to re-read partition table. WARNING: Re-reading the partition table failed with error 16: Device or resource busy. The kernel still uses the old table. The new table will be used at the next reboot or after you run partprobe(8) or kpartx(8) Syncing disks. [root@OCUDR-DR-NOAMP-A filemgmt]# reboot</pre>
23.	After step-6, reboot the instance	# reboot

Oracle Communications User Data Repository Software Upgrade Procedure

24.	After reboot, create physical volume and extend the volume group using it	Note: Once partition is done then create physical volum using pvcreate command but after reboot. # pvcreate <new physical volum name> Example: pvcreate /dev/vda3 # vgextend <vgname> <physical volume name> Example: vgextend vgroot /dev/vda3 <pre>[root@OCUDR-DR-NOAMP-A admusr]# pvs PV VG Fmt Attr PSize PFree /dev/vda2 vgroot lvm2 a--u 399.47g 117.62g [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# pvcreate /dev/vda3 Physical volume "/dev/vda3" successfully created [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# vgextend vgroot /dev/vda3 Volume group "vgroot" successfully extended [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# vgs VG #PV #LV #SN Attr VSize VFree vgroot 2 11 0 wz--n- 449.44g 167.59g [root@OCUDR-DR-NOAMP-A admusr]#</pre> Note: For knowledge. • use vgs command to know the vg name • use fdisk -l /dev/vda command to know the partition name which we have created in above step.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

H.3 Resizing VM Guest disk for upgrade on KVM

Step	Procedure	Result
17. ☐	Login to KVM host console where all KVM based machines are present.	 <pre> login as: root root@10.75.190.66's password: Activate the web console with: systemctl enable --now cockpit.socket Last login: Mon Oct 2 02:17:49 2023 from 10.191.211.80 </pre>
18.	Shutdown the VM for which disk size needs to be updated	<pre> # virsh shutdown UDR-12.11.1.0.0_111.6.0 [root@X5-2-OCUDR-OL-6 ~]# virsh list --all Id Name State ----- 139 UDR-12.11.0.0.0_111.3.0 running - UDR-12.11.1.0.0_111.6.0 shut off </pre>
19.	Extend the disk size of VM.	<pre> # qemu-img resize /home/image/UDR-12.11.1.0.0_111.6.0.qcow2 +50G Image resized. </pre> Note: The path of guest img may differe in customer setup.
20.	List the VM machines	<pre> # virsh list -all [root@X5-2-OCUDR-OL-6 ~]# virsh list --all Id Name State ----- 139 UDR-12.11.0.0.0_111.3.0 running - UDR-12.11.1.0.0_111.6.0 shut off [root@X6-2-OCUDR-OL8 ~]# </pre>
21.	Start the VM	<pre> # virsh start UDR-12.11.1.0.0_111.6.0 Domain 'UDR-12.11.0.0.0_111.5.0' started [root@X5-2-OCUDR-OL6 ~]# virsh list --all Id Name State ----- 139 UDR-12.11.0.0.0_111.3.0 running 224 UDR-12.11.1.0.0_111.6.0 running [root@X5-2-OCUDR-OL6 ~]# </pre>

Oracle Communications User Data Repository Software Upgrade Procedure

22.	Login to console of instance and execute the listed commands	# fdisk -c /dev/sda Note: Device name may differ from vda to some other name like sda, vdb, vdc etc.. ➔ Press letter 'm' (It will display all possible operations) ➔ Press letter 'n' (To add a new partition) ➔ Press letter 'p' (Primary extension) ➔ Press number '3' (Enter 3 or 4 as partion number or provide default choice) ➔ It will ask for sector value, provide default value as input) ➔ It will ask for size, provide '+50G' (To add 50GB, it depends upon VM flavor) Note: If we get error like “Value Out of Range” for above step then provide “+49G” instead of “+50G” Example : vg size will become 150GB , if the previous size is 100GB ➔ Press letter 't' (To change a partion's system id) ➔ Provide partition number which we have created in earlier step ➔ It will ask fro HEX Code, enter '8e' ➔ Press letter 'w' (write table to disk and exit) Example: <pre>[root@UDR-SO-A ~]# fdisk -c /dev/sda</pre> Welcome to fdisk (util-linux 2.32.1). Changes will remain in memory only, until you decide to write them. Be careful before using the write command. GPT PMBR size mismatch (209715199 != 314572799) will be corrected by write. The backup GPT table is not on the end of the device. This problem will be corrected by write. Command (m for help): n Partition number (3-128, default 3): 3 First sector (209715167-314572766, default 209715200): Last sector, +sectors or +size{K,M,G,T,P} (209715200-314572766, default 314572766): +50G Created a new partition 3 of type 'Linux filesystem' and of size 50 GiB. Command (m for help): t Partition number (1-3, default 3): 3 Partition type (type L to list all types): 8e Type of partition 3 is unchanged: Linux filesystem. Command (m for help): w The partition table has been altered. Syncing disks. <pre>[root@localhost ~]# reboot [root@localhost ~]# pvcreate /dev/sda3 Physical volume "/dev/sda3" successfully created. [root@UDR-SO-A ~]# pvs PV VG Fmt Attr PSize PFree /dev/sda2 vgroot lvm2 a-- <99.50g 24.26g /dev/sda3 lvm2 --- 49.00g 49.00g [root@localhost ~]# vgextend vgroot /dev/sda3 Volume group "vgroot" successfully extended [root@UDR-SO-A ~]# vgs VG #PV #LV #SN Attr 100Size VFree vgroot 2 11 0 wz--n- 149.49g <74.26g [root@UDR-SO-A ~]#</pre>
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Oracle Communications User Data Repository Software Upgrade Procedure

23.	After step-6, reboot the instance	# reboot
24.	After reboot, create physical volume and extend the volume group using it	Note: Once partition is done then create physical volum using pvcreate command but after reboot. # pvcreate <new physical volum name> Example: pvcreate /dev/vda3 # vgextend <vgname> <physical volume name> Example: vgextend vgroot /dev/vda3 <pre>[root@OCUDR-DR-NOAMP-A admusr]# pvs PV VG Fmt Attr PSize PFree /dev/vda2 vgroot lvm2 a--u 399.47g 117.62g [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# pvcreate /dev/vda3 Physical volume "/dev/vda3" successfully created [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# vgextend vgroot /dev/vda3 Volume group "vgroot" successfully extended [root@OCUDR-DR-NOAMP-A admusr]# [root@OCUDR-DR-NOAMP-A admusr]# vgs VG #PV #LV #SN Attr VSize VFree vgroot 2 11 0 wz--n- 449.44g 167.59g [root@OCUDR-DR-NOAMP-A admusr]#</pre> Note: For knowledge. • use vgs command to know the vg name • use fdisk -l /dev/vda command to know the partition name which we have created in above step.
THIS PROCEDURE HAS BEEN COMPLETED		

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX I. MY ORACLE SUPPORT (MOS)

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

Call the CAS main number at **1-800-223-1711** (toll-free in the US), or call the Oracle Support hotline for your local country from the list at <http://www.oracle.com/us/support/contact/index.html>. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select **2** for New Service Request
2. Select **3** for Hardware, Networking and Solaris Operating System Support
3. Select one of the following options:
 - For Technical issues such as creating a new Service Request (SR), Select **1**
 - For Non-technical issues such as registration or assistance with MOS, Select **2**

You will be connected to a live agent who can assist you with MOS registration and opening a support ticket.

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

Oracle Communications User Data Repository Software Upgrade Procedure

APPENDIX J. LOCATE PRODUCT DOCUMENTATION ON THE ORACLE HELP CENTER SITE

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

1. Log into the Oracle Technology Network site at <http://docs.oracle.com>.
2. Select the tab “Find a product”
3. Type “User Data Repository”
4. Takes you to “CGBU Documentation”.
A list of the entire documentation set for the selected product and release appears.
5. Select “User Data Repository” followed by version
6. To download a file to your location, right-click the **PDF** link, select **Save target as** (or similar command based on your browser), and save to a local folder.