

**Oracle® Communications  
EAGLE Application Processor  
Upgrade/Installation Guide for E5-APP-B**

Release 18.0

G58032-01

June 2026

**ORACLE®**

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## Acronyms

This section provides an alphabetized list of acronyms used in the document.

**Table 1. Acronyms**

|          |   |
|----------|---|
| AS       | Application Server  |
| E5-APP-B | E5 Based Application Card                                     |
| OCEPAP   | Oracle Communication EAGLE Provisioning Application Processor |
| GA       | General Availability  |
| IPM      | Initial Product Manufacture                                   |
| LA       | Limited Availability  |
| MPS      | Multi-Purpose Server  |
| MOS      | My Oracle Support   |
| OSDC     | Oracle Software Delivery Cloud                                |
| SM       | Service Module  |
| TPD      | Tekelec Platform Distribution                                 |

## What's New in this Guide

This section introduces the documentation updates for Release 18.0 in Oracle Communications EAGLE Application Processor Upgrade/Installation Guide for E5-APP-B Card.

### Release 18.0 – G58032-01, June 2026

- EPAP 18.0 provides 510M/900M/1110M DB support in eXtreme architecture.

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# INTRODUCTION

## Purpose and Scope

This document describes methods used and procedures followed to perform the following tasks:

- a. An initial installation of the EPAP 18.0.0 application software if it is not currently installed on an inservice E5-APP-B system running a release of TPD 8.X
- b. A Full upgrade on an in-service E5-APP-B system running an EPAP Release 17.0.0.5 or lower
- c. A dual image upgrade upgrade on an in-service E5-APP-B system running an EPAP Release 17.0.0.6 or higher or 17.1.x .

The audience for this document consists of Oracle customers and the following groups: Software System, Product Verification, Documentation, and Customer Service including Software Operations and NPI. This document provides step-by-step instructions to Run any MPS upgrade or installation using an ISO image.

This document does not address requirements relating to the interaction, if any, between EAGLE and MPS upgrade. This document does not address feature activation.

### Note:

1. **service <service name> start/stop should not be used on EPAP 17.0 onwards. Instead, systemctl start/stop <service name> should be used.**
2. **EPAP 16.4 introduced a new parameter, LSBLSET, in the DN\_BL and DNB\_BL tables of the PDB database. EPAP releases prior to 16.4 do not have LSBLSET in their DN\_BL and DNB\_BL tables.**

**Customers who use LSBLSET in their provisioning and are upgrading their EPAP network from EPAP 16.3 to a higher release (16.4/17.x/18.x) must ensure that LSBLSET is provisioned only after the entire network has been upgraded to EPAP 18.x. The following key points must be observed when upgrading from 16.3 to 16.4/17.x/18.x:**

- **Do not provision LSBLSET in the network while any provisioning node (Active or Standby PDBA site) is still on 16.3, as older nodes will reject the update and cause replication failures.**
- **Ensure that no provisioning is performed in this state (18.x Active PDB / 16.3 Standby PDB). If the EPAP 18.0 Active PDB site upgrades a DN with the LSBLSET parameter, EPAP on 16.3 or lower release will reject the update because they do not have the LSBLSET parameter in their database. Further provisioning at the Standby PDBA and Non-PROVs will be blocked once any update fails to replicate to the Standby PDBA or Non-PROVs.**
- **In a dual PDBonly/dual Mixed server setup, if one PROV (StandAlone/Mixed-EPAP) site is upgraded to EPAP 18.x while the other PROV site remains on EPAP 16.3, do not designate the EPAP 18.x site as the Active provisioning server. The already upgraded EPAP 18.x will be made the Active provisioning server during the maintenance window taken for upgrading the other EPAP 16.3 (or lower) provisioning site to 18.x.**

## References

### 1.1.1 External

[1] *EAGLE Application Processor (EPAP) Administration Guide*, E54368-01, latest revision, Oracle

### 1.1.2 Internal (Oracle)

The following are references internal to Oracle. They are provided here to capture the source material used to create this document. Internal references are only available to Oracle's personnel.

[1] *TEKELEC Acronym Guide*, MS005077, revision 2.35, September 2005.

[2] *Software Upgrade Procedure Template*, TM005074, Current Version

[3] *Integrating MPS into the Customer Network*, TR005014, version 3.1, October 2009

[4] *TPD Initial Product Manufacture – TPD 8.6*, Latest revision

[5] *PFS EPAP 17.0*, Latest revision

[6] *EPAP Administration Manual for EPAP 17.0*, Latest version

[7] EPAP Linkset Based Blocklisting, CGBU\_042015

## Software Release Numbering

Refer to Engineering Release Notes or other appropriate document with the most recent build numbers in order to identify the proper components (software loads, GPLs, etc.) that comprise the product's software release.

## Terminology

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

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

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

*Each command that the technician is to enter is in 9 point Lucida Console font*

|                               |  |   |
|-------------------------------|--|---|
| 1<br><input type="checkbox"/> | MPS A: Verify all materials required are present | Materials are listed in Material List ( <a href="#">Section 3.2</a> ) |
|-------------------------------|--|---|

**Figure 1: Example of a step that indicates the Server on which it needs to be run**

Other terminology follows.

**Table 2. Terminology**

|  |   |
|--|---|
| <b>Backout (abort)</b>                   | The process to take a system back to a Source Release prior to completion of upgrade to Target release. Includes preservation of databases and system configuration.  |
| <b>Mixed EPAP</b>                        | An EPAP where both PDB and RTDB databases reside.   |
| <b>Non-provisionable (Non-prov) EPAP</b> | An EPAP server hosting a Real Time DB without any provisioning interfaces to external provisioning applications. Non-Prov servers are connected to a pair of Provisionable EPAP(mixed-EPAP or PDBonly) from where they get their updates.   |
| <b>Provisionable EPAP</b>                | An EPAP server hosting PDB with provisioning interfaces to AS. Both Mixed EPAP and Standalone PDB are Provisionable EPAP.   |
| <b>Source release</b>                    | Software release to upgrade from.   |
| <b>Split Mirror</b>                      | Systems that use software RAID instead of hardware RAID can use the software RAID mirrors as a backout mechanism.<br>Conceptually in a software RAID1 with two disks there are two sides to the mirror; let them be side A and side B. For a system with multiple software RAID devices, each device will have an A side and a B side. For an upgrade with a BACKOUT_TYPE=SPLIT_MIRROR the upgrade will break the mirrors at the beginning of the upgrade and perform the upgrade on the <b>Asides</b> of the mirrors. The other sides of the mirrors ( <b>B sides</b> ) are left intact in their pre-upgrade state throughout the duration of the upgrade.<br><br>When a backout is performed the system is rebooted into the same 'backout environment'. Inside this 'backout environment' the RAID mirrors are rebuilt from the <b>B sides</b> of the arrays, thus restoring the system to the pre-upgrade state |

|                                 |   |
|---------------------------------|---|
| <b>Standalone PDB</b>           | Also known as 'PDB Only', this type of EPAP shall have PDB database only. No RTDB database shall exist on the standalone PDB site.                |
| <b>Target release</b>           | Software release to upgrade to.   |
| <b>Upgrade media</b>            | USB media or ISO image for E5-APP-B.  |
| <b>Dual Image Upgrade (DIU)</b> | This process upgrades both the Application as well as the TPD version on the system together. This provides a faster method to upgrade the setup. |

## Recommendations

Follow this procedure exactly as written. **When planning to run upgrade on the server, contact My Oracle Support at least 48 hours before the scheduled start of the upgrade process.** If any unexpected results are returned while following steps in this procedure, halt the activity and contact My Oracle Support for assistance.

Read the following notes on procedures:

1. **While performing the upgrade, do not open the `epapconfig` menu if it is not mentioned in the procedure. Do not run anything in the setup that is not documented in the install/upgrade manual.**
2. Any procedure completion times are estimates. Times may vary due to differences in database size, user experience, and user preparation.
3. The shaded area within response steps must be verified in order to successfully complete that step.
4. Output displayed in the procedures' response steps is presented. Actual output varies depending on system. Output is presented for reference only.
5. Where possible, command response outputs are shown as accurately as possible. However, exceptions may include the following:
  - Information such as *time* and *date*.
  - ANY information marked with "**XXXX**." Where appropriate, instructions are provided to determine what output should be expected in place of "**XXXX**."
6. After completing each step and **at each point where data is recorded from the screen, the technician performing the procedure must check each step.** A checkbox has been provided beneath each step number for this purpose.
7. Captured data is required for future support if My Oracle Support is not present during the following procedures.
8. In procedures that require a command to be run on a specific MPS, the command is prefaced with MPS A: or MPS B:
9. User Interface menu items displayed in this document were correct at the time the document was published but may appear differently when this procedure is followed.
10. During DIU (Dual Image Upgrade), do not open the GUI or start the software explicitly.

11. Do not provision data during the DIU process as it might lead to data loss.
12. Copy the commands in a text editor to verify their format before running them in the CLI rather than pasting them directly from the document to the CLI.

## Requirements

- Screen logging is required throughout the procedure. These logs should be made available to My Oracle Support in the event their assistance is needed.
- Target-release USB media or ISO image

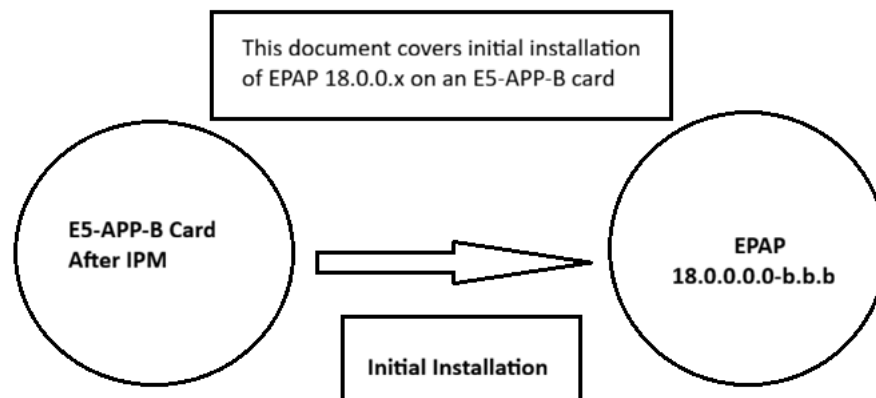
## 2 GENERAL DESCRIPTION

This document defines the step-by-step actions performed to Run a software upgrade of an in-service MPS running the EPAP application from the source release to the target release on **E5-APP-B-01/02**.

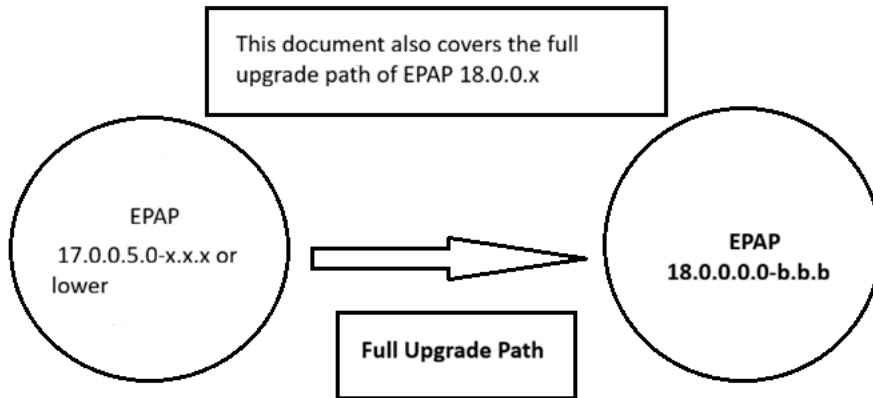
For the EPAP application, some steps in this procedure refer to the PDB application feature on the MPS A of the MPS pair. The EPAP application makes it optional for a newly installed MPS A node to be configured as a Provisioning (PDB) node (upgrades of MPS A nodes already configured as a provisioning node does not change this configuration).

**Note: Refer to Media and Documentation section of Release Notes 18.0 for correct TPD and EPAP Release**

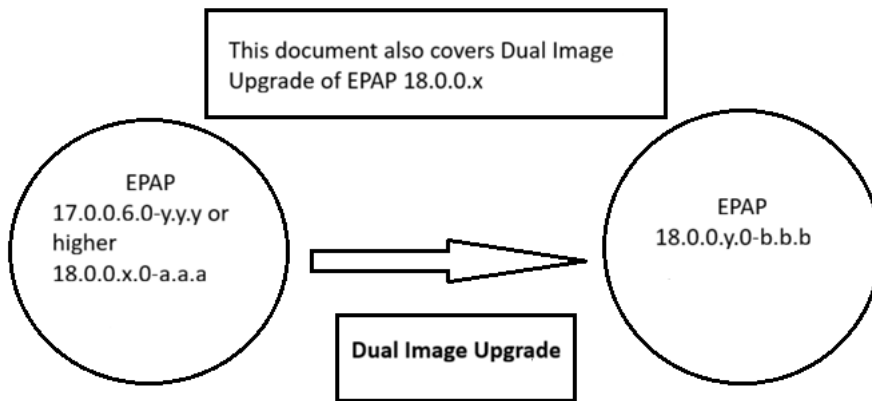
The EPAP upgrade paths are shown in the figures below. The general timeline for all processes to perform a software incremental upgrade, from pre-upgrade backups to a final system health check, is also included below.



**Figure 2: Initial Application Installation Path**



**Figure 3: Full upgrade Path – EPAP 18.0.0.0.0-b.b.b**

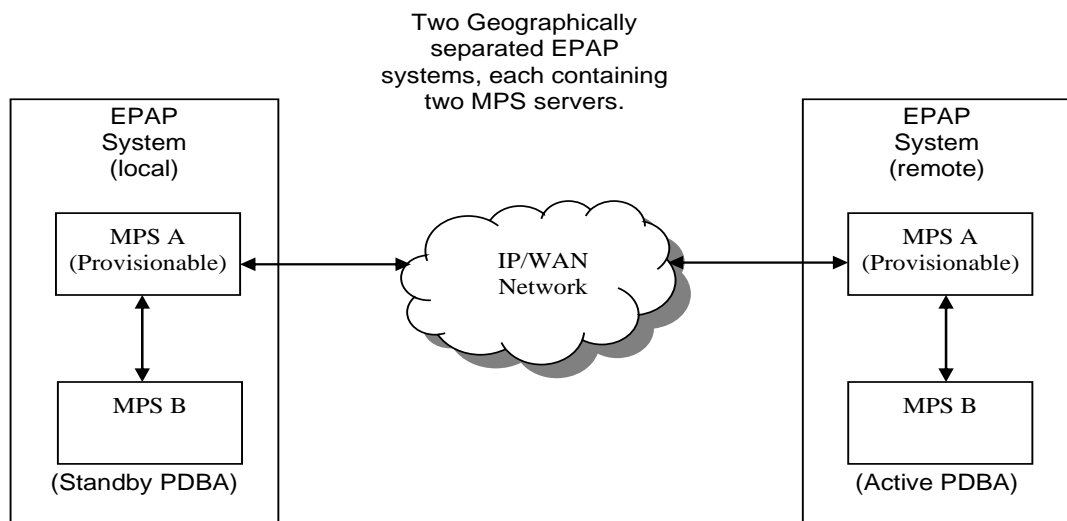


**Figure 4: Dual Image Upgrade Path – EPAP 18.0.0.0.0-b.b.b**

## 2.1 Upgrading Provisionable mixed EPAP Mated Pairs

Current deployments of the EPAP support two geographically separated EPAP systems that are “mated”, meaning they communicate and replicate PDB information between the two sites. An EPAP system is a pair of MPS servers (an **A** and a **B** node). Hence, a mated pair of EPAP systems consists of four MPS servers, an **A** and a **B** node for each EPAP system (see Figure 5: EPAP Mated Pairs). EPAP allows more than two EPAP systems in a related configuration (up to 22 Non-Provisionable MPS servers).

This document describes upgrade (and, if necessary, backout) of the EPAP software on one system, that system consisting of two MPS servers (A and B).



**Figure 5: EPAP Mated Pairs**

Upgrade of provisionable EPAP(mixed-EPAP) mated pairs must be carried out in the following order:

1. Ensure PDB databases are at the same level. Make ensure that all PDB databases are in sync before proceeding.
2. Local MPS-B
3. Local MPS-A (Standby PDBA)
4. Remote MPS-B
5. Remote MPS-A (Active PDBA)

NOTE: Since the PDBA software is not running immediately after an upgrade, the syscheck utility will alarm the fact that the PDBA is not running on the local and remote EPAP A-servers.

### **Backout Provisionable mixed EPAP Mated Pairs**

Backout of Provisionable EPAP (mixed-EPAP) Mated Pairs should be done in the reverse order that the upgrade was performed:

1. Identify a PDB backup that was made prior to upgrade, on the EPAP release that backout will target. Note that backout always carries the risk of losing data, should a restore from database backup become necessary.
2. Remote MPS-A (Active PDBA)
3. Remote MPS-B
4. Local MPS-A (Standby PDBA)
5. Local MPS-B

On a backout of an upgrade, the server will remain in runlevel 3 (no applications running). The user will be required to manually reboot the server to bring it back into service and a syscheck can be performed.

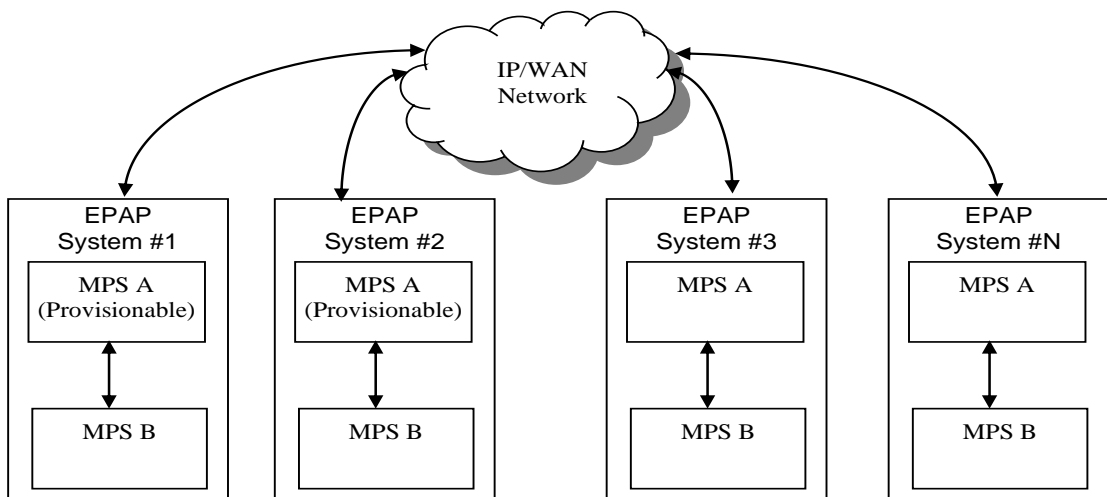
## Upgrading EPAP Non-Provisionable MPS Servers

EPAP Non-Provisional MPS pairs can connect to: Mixed EPAP or Standalone PDB.

### 2.1.1 Upgrading Non-Provisional MPS pairs in Mixed EPAP configuration

EPAP provides the ability to expand the concept of a mated pair of EPAP systems to have up to 24 EPAP systems (48 MPS servers total) configured such that two of the MPS-A servers will run the PDBA software and RTDB software both and handle provisioning (Provisionable nodes) and the other 22 MPS-B and 22 MPS-A servers will only run the RTDB software, taking their updates from the two Provisionable (mixed-EPAP or PDBonly) MPS-A servers.

An example showing 4 EPAP systems, two of which are provisioning nodes.



## Figure 6: EPAP Mated Pairs with Non-Provisioning MPS Servers

In such a configuration, it is required that the EPAP system containing the provisionable MPS servers are upgraded first, before any EPAP system containing the non-provisionable MPS servers are upgraded. Upgrade of such configuration must be carried out in the following order:

### Mixed EPAP (with standby PDBA)

1. Mixed EPAP (MPS B)
2. Mixed EPAP (MPS A)

### Mixed EPAP (with active PDBA)

3. Mixed EPAP (MPS B)
4. Mixed EPAP (MPS A)

### Non-provisionable EPAPs (All Non-Provs)

5. Non-Provisionable (MPS B)
6. Non-Provisionable (MPS A)

## 2.1.2 Upgrading Non-Provisional MPS pairs in dual PDBonly configuration

EPAP provides the ability to separate the RTDB from PDB to create two architectures: Standalone PDB running PDB process only and Non-Provisionable running RTDB only. Up to 22 Non-Provisional EPAP mated pairs are connected to 2 Standalone PDB that are configured as Active/Standby. In such a configuration, it is required that the Prov servers must be upgraded first followed by the Non-Provs and should be carried out in the following order:

1. Standby PDBonly
2. Active PDBonly
3. Non-Prov (MPS B)
4. Non-Prov (MPS A)

## Backout EPAP Non-provisionable MPS servers

EPAP Non-Provisional MPS pairs can connect to: Mixed EPAP or Standalone PDB.

## 2.1.3 Backout Non-Provisionable MPS pairs in dual PDBonly configuration

Backout of Non-Provisionable MPS pairs in Standalone configuration should be done in the reverse order that the upgrade was performed. Please follow the below mentioned steps for backout:

1. Non-Provisionable (MPS A)
2. Non-Provisionable (MPS B)
3. Standby PDBonly
4. Active PDBonly

On a backout of an upgrade, the server will remain in runlevel 3 (no applications running). The user will be required to manually reboot the server to bring it back into service and a syscheck can be performed.

#### **2.1.4 Backout Non-Provisionable MPS pairs in mixed EPAP configuration**

Backout of EPAP Non-provisionable MPS pairs in mixed EPAP configuration should be done in the reverse order that the upgrade was performed:

Non-provisionable EPAP

1. Non-Provisionable (MPS A)
2. Non-Provisionable (MPS B)

Mixed EPAP (**with Standby PDBA**)

3. Mixed EPAP (MPS A)
4. Mixed EPAP (MPS B)

Mixed EPAP (**with Active PDBA**)

5. Mixed EPAP (MPS A)
6. Mixed EPAP (MPS B)

### 3 UPGRADE OVERVIEW

#### 3.1 Upgrade Provisioning Rules

Provisionable Dual Mixed EPAP and dual PDBonly EPAPs can be upgraded with both live provisioning ON or Off, please refer [section 3.1.6](#) and [section 3.1.8](#).

Provisionable Single Mixed and Single PDBonly EPAPs can be upgraded with live provisioning OFF only, please refer [section 3.1.3](#) and [section 3.1.7](#).

Non-Provisionable EPAPs can be upgraded with both live provisioning ON or OFF, please refer [section 3.1.5](#).

The PDBA software remains stopped on the server which is being upgraded even after upgrade is done until asked to start the software as mentioned in the upgrade procedures.

Note: It is very important that any Legacy UpdateAny legacy update must be accepted before proceeding for Dual Image Upgrade.

Following table describes the typical time required to upgrade to EPAP release 18.0. The data represents what was observed in the lab test. The timing required in actual upgrade might vary. The data is provided to gauge the approximate time required for the upgrade and prepare for proper maintenance window.

**Note:**

All Non-PROVs can be upgraded within normal maintenance window of 6-8 hours. PROV EPAPS (Mixed-EPPA/No-PROVS) might need extended time based on the amount of data. Customers who have DUAL PROV sites (Mixed-EPAP/PDB only EPAP) can upgrade with Live provisioning ON.

**Table 3: Upgrade time for EPAP 18.0 PROV EPAP - Mixed EPAP (Compact DB)/ PDBonly(eXtreme DB)**

| DB Architecture | DN Count | IMSI Count | IMEI Count | Backup time | Restore Time      | Overall upgrade time (Backup Time + Full Upgrade Time + Restore Time) |
|-----------------|----------|------------|------------|-------------|-------------------|---|
| Compact         | 40M      | 0          | 0          | 3 minutes   | 30 minutes        | 4 hours   |
| Compact         | 80M      | 0          | 0          | 6 minutes   | 1 hour            | 5 hours   |
| Compact         | 120M     | 0          | 0          | 12 minutes  | 2 hour 45 minutes | 7 hours   |

|         |      |      |      |            |                        |          |
|---------|------|------|------|------------|------------------------|----------|
| Compact | 160M | 0    | 0    | 15 minutes | 4 hours and 30 minutes | 8 hours  |
| Compact | 200M | 0    | 0    | 25 minutes | 6 hours 20 minutes     | 10 hours |
| Compact | 240M | 0    | 0    | 30 minutes | 8 hours                | 12 hours |
| Compact | 240M | 240M | 48M  | 27 minutes | 7 hours                | 12 hours |
| eXtreme | 240M | 0    | 0    | 30 minutes | 8 hours                | 12 hours |
| eXtreme | 300M | 0    | 0    | 35 minutes | 11 hours               | 15 hours |
| eXtreme | 360M | 0    | 0    | 40 minutes | 11 hours 50 minutes    | 17 hours |
| eXtreme | 0    | 240M | 0    | 15 minutes | 30 minutes             | 7 hours  |
| eXtreme | 480M | 555M | 45M  | 26 minutes | 6.5 Hrs                | 11 hours |
| eXtreme | 420M | 300M | 180M | 45 minutes | 13.5 Hr                | 17 hours |
| eXtreme | 480M | 555M | 45M  | 55 Minutes | 13 Hours               | 17 hours |

**Table 4: Upgrade time for EPAP 18.0 Non-PROV EPAP**

| DB Architecture | DN Count | IMSI Count | IMEI Count | Backup time       | Restore Time | Overall upgrade time |
|-----------------|----------|------------|------------|-------------------|--------------|----------------------|
| Compact         | 240M DN  | 240M       | 48M        | 30 Minutes        | 42 minutes   | 5 hours              |
| eXtreme         | 0        | 240M       | 0          | 15 minutes        | 30 minutes   | 5 hours              |
| eXtreme         | 480M     | 555M       | 45M        | 1 hour 18 minutes | 2 hours      | 8 hours              |

### 3.2 Required Materials

- For Mixed EPAP or Non-Provisional EPAP: Two (2) target-release USB media (Greater than 2GB of size) or a target-release ISO file. For Standalone PDB: One (1) target-release USB media(Greater than 2GB of size) or a target-release ISO file
- A terminal and null modem cable to establish a serial connection.
- Write down the system configuration information.

| Description                 | Information |
|-----------------------------|-------------|
| PROVISIONABLE (Yes/No)      |             |
| PDBA state (Active/Standby) |             |
| Provisioning IP (IPv4)      |             |
| Provisioning Mask (IPv4)    |             |

|                                       |  |
|---------------------------------------|--|
| Provisioning Default Router IP (IPv4) |  |
| Provisioning IP (IPv6)                |  |
| Provisioning Netmask (IPv6)           |  |
| Provisioning Default Router IP (IPv6) |  |
| NTP1 IP (IPv4/IPv6)                   |  |
| NTP2 IP (IPv4/IPv6)                   |  |
| NTP3 IP (IPv4/IPv6)                   |  |
| Local VIP                             |  |
| Remote VIP                            |  |
| Local PDBA IP (IPv4)                  |  |
| Local PDBA IP (IPv6)                  |  |
| Remote PDBA IP (IPv4/IPv6)            |  |
| Remote PDBA B IP (IPv4/IPv6)          |  |
| RTDB Homing                           |  |
| Time Zone                             |  |
| PDBA Proxy Feature                    |  |
| Others                                |  |

**Table 5: System Configuration Information**

- Passwords for users on the local system:

| EPAP USERS                           |                |                |
|--------------------------------------|----------------|----------------|
| login                                | MPS A password | MPS B password |
| epapconfig                           |                |                |
| epapdev<br>(needed for backout only) |                |                |
| root                                 |                |                |
| epapall<br>(needed for GUI access)   |                |                |
| admusr                               |                |                |

**Table 6: User Password Table**

## Installation Phases

The following table illustrates the progression of the installation process by procedure with estimated times. The estimated times and the phases to be completed may vary due to differences in operator input speed and system configuration. The phases outlined in Table 7 and Table 8 are to be followed in the order they are listed.

### 3.1.1 Installation Phases for Mixed and Non-Provisionable EPAP

| Phase                               | Elapsed Time (Minutes) |      | Activity   | Procedure  |
|-------------------------------------|------------------------|------|--|--|
|                                     | This Step              | Cum. |  |  |
| Connectivity setup                  | 15                     | 15   | Set up connectivity to the MPS Servers.                                      | <a href="#">Procedure 1</a>                                |
| Verify install                      | 5                      | 20   | Verify this should be an install.  | <a href="#">Procedure 2</a>                                |
| Pre-upgrade check                   | 15                     | 35   | Verify requirements for install are met.                                     | <a href="#">Procedure 3</a>                                |
| Pre-install health check            | 5                      | 40   | Run the syscheck utility to verify that all servers are operationally sound. | <a href="#">Procedure 4</a>                                |
| Configure Server 1A                 | 5                      | 45   | Set hostname, designation, function and time.                                | <a href="#">Procedure 5</a>                                |
| Configure Server 1B                 | 5                      | 50   | Set hostname, designation, function and time.                                | <a href="#">Procedure 6</a>                                |
| Install Servers                     | 30                     | 80   | Install software on sides 1A and 1B  | <a href="#">Procedure 7</a><br><a href="#">Procedure 8</a> |
| Configure Switches                  | 30*                    | 110* | Configure the Switches   | <a href="#">Procedure 9</a>                                |
| Post-install application processing | 30                     | 140  | Perform first time configuration.  | <a href="#">Procedure 11</a>                               |
| Post-upgrade health check           | 5                      | 145  | Run the syscheck utility to verify all servers are operationally sound.      | <a href="#">Procedure 4</a>                                |

| Phase  | Elapsed Time (Minutes) |      | Activity   | Procedure                      |
|--|------------------------|------|--|--------------------------------|
|  | This Step              | Cum. |  |                                |
| **Configure Auto Backup<br><br><b>Note: Skip this step if the EPAP is configured as Non-Provisionable.</b> | 5                      | 150  | Configure Auto Backup from PDB GUI on Provisionable EPAP's, this backup will also get scheduled on attached Non-Prov sites present on the setup. | <a href="#">Procedure A.25</a> |
| Check EPAP-EAGLE connectivity speed  | 20                     | 170  | Configure and verify that EAGLE SM cards are getting auto-negotiated to 1000Mbps/Full Duplex   | 0                              |

**Table 7: Installation Phases for Mixed EPAP and Non-Provisional EPAP**

**Note:**

- If configuring 4 switches, add 30 minutes to the current setup. Configuring Auto backup is a compulsory step to enable PDB-RTDB translogs pruning.

### 3.1.2 Installation Phases for Standalone PDB

Note: In the procedures below, skip the steps that need to be followed on MPS B, since MPS B is not present in the Standalone PDB configuration".

| Phase                    | Elapsed Time (Minutes) |      | Activity   | Procedure                   |
|--------------------------|------------------------|------|--|-----------------------------|
|                          | This Step              | Cum. |  |                             |
| Connectivity setup       | 15                     | 15   | Set up connectivity to the MPS Servers.                                      | <a href="#">Procedure 1</a> |
| Verify install           | 5                      | 20   | Verify this should be an install.  | <a href="#">Procedure 2</a> |
| Pre-upgrade check        | 15                     | 35   | Verify requirements for install are met.                                     | <a href="#">Procedure 3</a> |
| Pre-install health check | 5                      | 40   | Run the syscheck utility to verify that all servers are operationally sound. | <a href="#">Procedure 4</a> |

| Phase   | Elapsed Time (Minutes) |      | Activity   | Procedure                      |
|---|------------------------|------|--|--------------------------------|
|   | This Step              | Cum. |  |                                |
| Configure Server 1A   | 5                      | 45   | Set hostname, designation, function and time.  | <a href="#">Procedure 5</a>    |
| Install Server  | 30                     | 75   | Install software on sides 1A   | <a href="#">Procedure 7</a>    |
| Post-install application processing   | 30                     | 105  | Perform first time configuration. Refer to <a href="#">Procedure A.14</a> to configure the Standalone PDB in segmented network configuration.    | <a href="#">Procedure 11</a>   |
| Post-upgrade health check   | 5                      | 110  | Run the syscheck utility to verify all servers are operationally sound.  | <a href="#">Procedure 4</a>    |
| **Configure Auto Backup.<br><b>Note: Perform this step once Non-Provisionable EPAPs are attached to this Standalone PDB</b> | 5                      | 115  | Configure Auto Backup from PDB GUI on Provisionable EPAP's, this backup will also get scheduled on attached Non-Prov sites present on the setup. | <a href="#">Procedure A.25</a> |

**Table 8: Installation Phases for Standalone PDB**

**\*NOTE:** The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.

**\*\*NOTE:** Configuring Auto backup is a compulsory step to enable PDB-RTDB translog pruning.

## Full Upgrade Phases

The following table illustrates the progression of the full upgrade process by procedure with estimated times and may vary due to differences in operator input speed and system configuration. The procedures outlined below are to be followed in the order they are listed.

**Note:** Before proceeding with the Full Upgrade process, refer to [Upgrading Provisionable mixed EPAP Mated Pairs](#) and [Upgrading EPAP Non-Provisionable MPS Servers](#) to get the overview of the EPAP setup and upgrade order.

### 3.1.3 Full Upgrade Phases for Mixed EPAP without live provisioning

Note: Do not add DN and DNBlock with lsblset parameter until all nodes in the network are migrated to EPAP 18.0 successfully.

| Phase   | Elapsed Time (Minutes) |                  | Activity   | Procedure   |
|---|------------------------|------------------|--|---|
|   | This Step              | Cum.             |  |   |
| Connectivity setup  | 15                     | 15               | Set up connectivity to the MPS servers.  | <a href="#">Procedure 1</a>   |
| Verify Full upgrade   | 5                      | 20               | Verify this should be a Full upgrade.  | <a href="#">Procedure 2</a>   |
| Pre-upgrade check   | 15                     | 35               | Verify requirements for Full Upgrade are met.  | <a href="#">Procedure 3</a>   |
| Pre-upgrade health check  | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound.  | <a href="#">Procedure 4</a>   |
| Assess readiness for upgrade                                      | 15                     | 55               | Assess the server's readiness for upgrade.   | <a href="#">Procedure 14</a>  |
| EPAP 16.3/16.4/17.0.0.x/17.1.x RTDB and EuiDB Backups             | *See notes below       | *See notes below | Backup application databases and other pertinent information in case of backout required   | <a href="#">Procedure A.6</a><br><a href="#">Procedure A.7</a><br><a href="#">Procedure A.8</a> |
| Take snapshot of uiEdit parameters                                | 15                     | 70               | Take a snapshot of uiEdit parameters to be compared after migration is complete  | <a href="#">Procedure A.39</a>  |
| Change MySql engine schema  | 15                     | 85               | Change mysql schema from myiasm to innodb<br><br>Note: This procedure is not to be performed if migrating from 17.0.0.x/17.1.x/18.0.0.x. | <a href="#">Procedure A.31</a>  |
| Save the EPAP 16.3/16.4/17.0.0.x/17.1.x additional configurations | 20                     | 105              | Save the NTP, EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations, HTTP configurations           | <a href="#">Procedure A.40</a>  |
| Pre-upgrade Backup  | *See notes below       | *See notes below | Backup application databases and other pertinent information.  | <a href="#">Procedure 15</a>  |

| Phase                               | Elapsed Time (Minutes) |                  | Activity   | Procedure  |
|-------------------------------------|------------------------|------------------|--|--|
|                                     | This Step              | Cum.             |  |  |
| e-upgrade system time check         | 5                      | 110              | Pre-upgrade system time check.   | <a href="#">Procedure 16</a>                               |
| IPM E5-APP-B Server                 | 45                     | 155              | This Procedure will IPM the E5-APP-B Server<br><br>Note: IPM will be performed on both MPS A and B | <a href="#">Procedure A.13</a>                             |
| Configure Server 1A                 | 5                      | 160              | Set hostname, designation, function and time.  | <a href="#">Procedure 5</a>                                |
| Configure Server 1B                 | 5                      | 170              | Set hostname, designation, function and time.  | <a href="#">Procedure 6</a>                                |
| Install Servers                     | 30                     | 200              | Install software on sides 1A and 1B  | <a href="#">Procedure 7</a><br><a href="#">Procedure 8</a> |
| Configure Switches                  | 30                     | 230              | Configure the Switches   | <a href="#">Procedure 9</a>                                |
| Post-install application processing | 30                     | 260              | Perform first time configuration.  | <a href="#">Procedure 11</a>                               |
| Post upgrade health check           | 5                      | 265              | Run the syscheck utility to verify the MPS server is operationally sound.                          | <a href="#">Procedure 4</a>                                |
| Post upgrade EuiDB restore          | 5                      | 310              | Restore EuiDB database   | <a href="#">Procedure A.32</a>                             |
| Restore PDB Backup                  | *See notes below       | *See notes below | Restore EPAP 16.3.1/16.4.1/17.0.0.x /17.1.x/18.0.0.x PDB backup taken before fresh installation    | <a href="#">Procedure A.33</a>                             |
| Restore RTDB Backup                 | *See notes below       | *See notes below | Restore EPAP 16.3/16.4/17.0.0.x /17.1.x/18.0.0.x RTDB backup taken before fresh installation       | <a href="#">Procedure A.36</a>                             |
| Reload RTDB from mate               | 30                     | 340              | Reload RTDB from mate on Non-prov MPS B.   | <a href="#">Procedure A.11</a>                             |

| Phase   | Elapsed Time (Minutes) |      | Activity  | Procedure                      |
|---|------------------------|------|---|--------------------------------|
|   | This Step              | Cum. |   |                                |
| Reconfigure Additional EPAP configurations<br><br><b>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then rediscover the EPAP on EMS.</b><br><br><b>Also, QS is not supported in EPAP 18.0 release still Note down the Query srver details for future reference</b> | 45                     | 385  | Reconfigure the EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations<br><br>Note: If HTTP was enabled before migration, then reconfigure the HTTP configuration by disabling the configuration first and then enabling the configuration again from EPAP GUI | <a href="#">Procedure A.41</a> |
| Take snapshot of uiEdit parameters on upgraded EPAP 18.0.0.y servers  | 10                     | 395  | Take a snapshot of uiEdit parameters to be compared after migration is complete   | <a href="#">Procedure A.39</a> |
| Compare uiEdit parameters   | 10                     | 405  | Compare the snapshot taken in EPAP 18.0.0.y with the one taken on the EPAP 16.3/16.4 /17.0.0.x/18.0.0.x before migration  | <a href="#">Procedure A.42</a> |
| Start the PDB software  | 10                     | 415  | Re-activate the PDB on the Provisionable MPS A servers (PDBonly in this case).  | <a href="#">Procedure 27</a>   |
| Clear the Replication logs.   | 20                     | 435  | Clear the replication logs before connecting both the PDBAs<br><br><b>NOTE: Run this procedure in case of dual mixed EPAP. Provisioning should be stopped while following this procedure.</b>   | <a href="#">Procedure A.28</a> |

| Phase  | Elapsed Time (Minutes) |                                 | Activity  | Procedure                      |
|--|------------------------|---------------------------------|---|--------------------------------|
|  | This Step              | Cum.                            |   |                                |
| Exchange the keys between active EPAP site and standby EPAP site   | 30                     | 465                             | Keys exchange between active and standby EPAP sites.<br><br><b>NOTE: Run this procedure in case of dual mixed EPAP.</b>   | <a href="#">Procedure A.35</a> |
| ***Configure Auto Backup   | 5                      | 470                             | Configure Auto Backup from EPAP GUI on Provisionable EPAP's, this backup will get scheduled on attached Non-Prov sites present on the setup.  | <a href="#">Procedure A.25</a> |
| Reboot EAGLE Cards   | *See notes below       | *See notes below                | Reboot Eagle Cards to reload updated DB   | <a href="#">Procedure 21</a>   |
| Accept the upgrade after successful soak period<br><br>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given. | 5                      | This is done in a separate MTC. | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure 22</a>   |

**Table 9: Full Upgrade Phases for Mixed and Non-Provisionable EPAP**

**Note:**

- The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data. The time needed to restore PDB backup (MysqIDump) is dependent on the amount of PDB database.
- If configuring 4 switches, add 30 minutes to the current setup.
- The time needed to reload EAGLE cards is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.

- Configuring auto backup is a compulsory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.
- In a dual PDBonly/dual Mixed server setup, if one PROV (StandAlone/Mixed-EPAP) site is upgraded to EPAP 18.x while the other PROV site remains on EPAP 16.3, do not designate the EPAP 18.x site as the Active provisioning server. The already upgraded EPAP 18.x will be made the Active provisioning server during the maintenance window taken for upgrading the other EPAP 16.3 (or lower) provisioning site to 18.x.

#### Full Upgrade Phases for Dual Mixed EPAP without live provisioning

This procedure lists the procedure to upgrade Dual Mixed EPAP servers without live provisioning.

| Phase   | Activity   | Procedure  |
|---|--|--|
| Upgrading when both servers are on EPAP 16.3.1 / 16.4.1 /17.0.0.5 or lower release                | Upgrade Standby PDBA site on EPAP 16.3.1 /16.4.1 / 17.0.0.5 or lower to EPAP 18.0  | Procedure <a href="#">3.1.3</a>  |
| Upgrading when one server is on EPAP 18.0 and other is on EPAP 16.3.1 / 16.4.1 /17.0.0.5 or lower | Switchover PDBA sites to make server on EPAP 18.0 as Active PDBA site and server on EPAP 16.3.1 or 16.4.1 /17.0.0.5 or lower to standby site | If EPAP 16.3.1 or 16.4.1 is Active PDBA site from EPAP GUI, do a switchover PDBA to make it standby site before upgrade. |
| Upgrade EPAP 16.3.1/ 16.4.1/ 17.0.0.5 or lower site   | Upgrade Standby PDBA site on EPAP 16.3.1 / 16.4.1 / 17.0.0.5 or lower to EPAP 18.0   | Procedure <a href="#">3.1.3</a>  |

### 3.1.4 Full Upgrade Phases for Non-Provisionable EPAP with or without live provisioning

**Note:** This procedure can be used in with or without live provisioning scenario.

**Table 10: Full Upgrade Phases for Non-Provisionable EPAP with or without Live Provisioning**

| Phase  | Elapsed Time (Minutes) |                  | Activity  | Procedure  |
|--|------------------------|------------------|---|--|
|  | This Step              | Cum.             |   |  |
| Connectivity setup   | 15                     | 15               | Set up connectivity to the MPS servers.   | <a href="#">Procedure 1</a>                                    |
| Verify Full upgrade  | 5                      | 20               | Verify this should be a Full upgrade.   | <a href="#">Procedure 2</a>                                    |
| Pre-upgrade check  | 15                     | 35               | Verify requirements for Full Upgrade are met.   | <a href="#">Procedure 3</a>                                    |
| Pre-upgrade health check   | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound.   | <a href="#">Procedure 4</a>                                    |
| Assess readiness for upgrade                                       | 15                     | 55               | Assess the server's readiness for upgrade.  | <a href="#">Procedure 14</a>                                   |
| EPAP 16.3/16.4/17.0.0.x /17.1.x RTDB and EuiDB Backups             | *See notes below       | *See notes below | Backup application databases and other pertinent information in case of backout required  | <a href="#">Procedure A.7</a><br><a href="#">Procedure A.8</a> |
| Take snapshot of uiEdit parameters                                 | 10                     | 65               | Take a snapshot of uiEdit parameters to be compared after migration is complete   | <a href="#">Procedure A.39</a>                                 |
| Change MySql engine schema   | 15                     | 80               | Change mysql schema from myiasm to innnoDB<br><br>Note: This procedure is not to be performed if migrating from 17.0.0.x/17.1.x/18.0.0.x.                                   | <a href="#">Procedure A.31</a>                                 |
| Pre-upgrade Backup   | *See notes below       | *See notes below | Backup application databases and other pertinent information.<br><br>Note: PDB Backup is not required so steps mentioned in the procedure to take PDB backup can be skipped | <b>Procedure 15</b>  |
| Save the EPAP 16.3/16.4/17.0.0.x /17.1.x additional configurations | 20                     | 100              | Save the NTP, EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations, HTTP configurations  | <a href="#">Procedure A.40</a>                                 |

| Phase                               | Elapsed Time (Minutes) |      | Activity   | Procedure  |
|-------------------------------------|------------------------|------|--|--|
|                                     | This Step              | Cum. |  |  |
| Pre-upgrade system time check       | 5                      | 105  | Pre-upgrade system time check.   | <a href="#">Procedure 16</a>                               |
| IPM E5-APP-B Server                 | 45                     | 150  | This Procedure will IPM the E5-APP-B Server<br><br>Note: IPM will be performed on both MPS A and B | <a href="#">Procedure A.13</a>                             |
| Configure Server 1A                 | 5                      | 155  | Set hostname, designation, function and time.  | <a href="#">Procedure 5</a>                                |
| Configure Server 1B                 | 5                      | 160  | Set hostname, designation, function and time.  | <a href="#">Procedure 6</a>                                |
| Install Servers                     | 30                     | 190  | Install software on sides 1A and 1B  | <a href="#">Procedure 7</a><br><a href="#">Procedure 8</a> |
| Configure Switches                  | 30                     | 210  | Configure the Switches   | <a href="#">Procedure 9</a>                                |
| Post-install application processing | 30                     | 240  | Perform first time configuration.  | <a href="#">Procedure 11</a>                               |
| Full upgrade health check           | 5                      | 245  | Run the syscheck utility to verify the MPS server is operationally sound.                          | <a href="#">Procedure 4</a>                                |

| Phase  | Elapsed Time (Minutes) |                  | Activity  | Procedure                      |
|--|------------------------|------------------|---|--------------------------------|
|  | This Step              | Cum.             |   |                                |
| <p>Change DB architecture from Compact to eXtreme on Non-Prov site</p> <p>Read note carefully.</p> <p><b>Note 1: Applicable in case of full upgrade from</b></p> <p>Extreme – (16.3.1/16.4.1/17.0.0.5 or lower) in to 18.0 Extreme architecture.</p> <p><b>Note 2:</b><br/><b>This step not needed in</b></p> <p>Compact(16.3/16.4/17.0.0.5 or lower) -&gt; compact (18.0),</p> <p>compact- (16.3/16.4/17.0.0.5 or lower) &gt;eXtreme (18.0). First upgrade to 18.0 in compact mode, then convert to extreme architecture.</p> | 45                     | 290              | Change DB architecture from compact to Extreme  | <a href="#">Procedure 13</a>   |
| Post upgrade EuiDB restore   | 5                      | 295              | Restore EuiDB database  | <a href="#">Procedure A.32</a> |
| Restore RTDB Backup  | *See notes below       | *See notes below | Restore EPAP 16.3/16.4/17.0.0.x/17.1.x/18.0.0.x RTDB backup taken before fresh installation | <a href="#">Procedure A.36</a> |

| Phase  | Elapsed Time (Minutes) |                  | Activity   | Procedure                      |
|--|------------------------|------------------|--|--------------------------------|
|  | This Step              | Cum.             |  |                                |
| Reload RTDB from mate  | 30                     | 325              | Reload RTDB from mate on Non-prov MPS B.   | <a href="#">Procedure A.11</a> |
| Reconfigure Additional EPAP configurations.<br><br><b>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then rediscover the EPAP on EMS.</b><br><br><b>Also, QS is not supported in EPAP 18.0 release still Note down the Query srver details for future reference</b> | 45                     | 370              | Reconfigure the EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations.<br><br>Note: If HTTP was enabled before migration, then reconfigure the HTTP configuration by disabling the configuration first and then enabling the configuration again from EPAP GUI | <a href="#">Procedure A.41</a> |
| Take snapshot of uiEdit parameters on upgraded EPAP 18.0.0.y servers   | 10                     | 380              | Take a snapshot of uiEdit parameters to be compared after migration is complete.   | <a href="#">Procedure A.39</a> |
| Compare uiEdit parameters  | 10                     | 390              | Compare the snapshot taken in EPAP 18.0.0.y with the one taken on the EPAP 16.3/16.4/17.0.0.x/18.0.0.x before migration.   | <a href="#">Procedure A.42</a> |
| Reboot EAGLE Cards   | *See notes below       | *See notes below | Reboot Eagle Cards to reload updated DB  | <a href="#">Procedure 21</a>   |

| Phase   | Elapsed Time (Minutes) |                                 | Activity  | Procedure                    |
|---|------------------------|---------------------------------|---|------------------------------|
|   | This Step              | Cum.                            |   |                              |
| Accept the upgrade after successful soak period<br><br>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given.<br><br><b>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then rediscover the EPAP on EMS.</b> | 5                      | This is done in a separate MTC. | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure 22</a> |

**Note:**

- The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.
- The time needed to restore PDB backup (MysqIDump) is dependent on the amount of PDB database.
- This procedure cannot specify an exact length of time since different customers have different amounts of application data.
- If configuring 4 switches, add 30 minutes to the current setup.
- The time needed to reload EAGLE cards is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.
- Configuring Auto backup is a compulsory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.

### 3.1.5 Full Upgrade Phases for Dual Mixed with live provisioning

**Note:** Refer to [Appendix E](#) for things to be taken care while performing full upgrade with live provisioning.

**Note:** Do not add DN and DNBlock with lsblset parameter until all nodes in the network are migrated to EPAP 18.0 successfully.

**Table 11: Full Upgrade Phases for Dual Mixed with Live Provisioning**

| Phase   | Elapsed Time (Minutes) |                  | Activity   | Procedure   |
|---|------------------------|------------------|--|---|
|   | This Step              | Cum.             |  |   |
| Connectivity setup  | 15                     | 15               | Set up connectivity to the MPS servers.  | <a href="#">Procedure 1</a>   |
| Verify Full upgrade   | 5                      | 20               | Verify this should be a Full upgrade.  | <a href="#">Procedure 2</a>   |
| Pre-upgrade check   | 15                     | 35               | Verify requirements for upgrade are met.   | <a href="#">Procedure 3</a>   |
| Pre-upgrade health check  | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound.  | <a href="#">Procedure 4</a>   |
| Assess readiness for upgrade  | 15                     | 55               | Assess the server's readiness for upgrade.   | <a href="#">Procedure 14</a>  |
| EPAP 16.3/16.4/17.0.0.x/17.1.x RTDB, EuiDB and PDB Backups  | *See notes below       | *See notes below | Backup application databases and other pertinent information in case of backout required   | <a href="#">Procedure A.6</a><br><a href="#">Procedure A.7</a><br><a href="#">Procedure A.8</a> |
| Take snapshot of uiEdit parameters  | 15                     | 70               | Take a snapshot of uiEdit parameters to be compared after migration is complete  | <a href="#">Procedure A.39</a>  |
| Clear the repl logs   | 15                     | 85               | Verify that replication logs are cleared between active and standby EPAP's<br><br><b>NOTE: Provisioning should be stopped while following this procedure to clear repl logs.</b> | <a href="#">Procedure A.28</a>  |
| Reset RTDB homing policy  | 15                     | 100              | Modify the RTDB homing policy  | <a href="#">Procedure A.30</a>  |
| Remove remote PDBA IP from Standby PDBA site<br><br>Note: Make sure remote PDBA is present in Active PDBA site.<br>Refer <a href="#">Appendix E</a> . | 15                     | 115              | Delete the remote (Active) PDBA IP on Standby PDBA via epapconfig menu   | <a href="#">Procedure A.29</a>  |

|  |                  |                  |  |  |
|--|------------------|------------------|--|--|
| Change MySql engine schema   | 15               | 130              | Change mysql schema from myiasm to innodb<br><br>Note: This procedure is not to be performed if migrating from 17.0.0.x/17.1.x/18.0.0.x.   | <a href="#">Procedure A.31</a>                             |
| Save the EPAP 16.3/16.4/17.0.0.x/17.1.x additional configurations  | 20               | 150              | Save the NTP, EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations, HTTP configurations   | <a href="#">Procedure A.40</a>                             |
| Pre-upgrade Backup<br><br>Note: Take PDB backup from the node migrated first in the network. Refer to <a href="#">Procedure A.6</a> .<br><br>Note: If the network speed between two PDBAs is very slow, follow the original procedure to perform PDBA backup via MySQL dump process. Refer to <a href="#">Procedure A.27</a> . | *See notes below | *See notes below | Backup application databases and other pertinent information.  | <a href="#">Procedure 15</a>                               |
| Pre-upgrade system time check  | 5                | 155              | Pre-upgrade system time check.   | <a href="#">Procedure 16</a>                               |
| IPM E5-APP-B Server  | 45               | 200              | This Procedure will IPM the E5-APP-B Server<br><br><b>Note: IPM will be performed on both MPS A and B</b>  | <a href="#">Procedure A.13</a>                             |
| Configure Server 1A  | 5                | 205              | Set hostname, designation, function and time.  | <a href="#">Procedure 5</a>                                |
| Configure Server 1B  | 5                | 210              | Set hostname, designation, function and time.  | <a href="#">Procedure 6</a>                                |
| Install Servers  | 30               | 240              | Install software on sides 1A and 1B  | <a href="#">Procedure 7</a><br><a href="#">Procedure 8</a> |
| Configure Switches   | 30               | 270              | Configure the Switches   | <a href="#">Procedure 9</a>                                |
| Post-install application processing  | 30               | 300              | Perform first time configuration Refer to <a href="#">Procedure A.14</a> to configure the Standalone PDB in segmented network configuration.<br><b>Note: Do not start the PDBA software after creating PDB</b> | <a href="#">Procedure 11</a>                               |

|  |                  |                  |   |                                |
|--|------------------|------------------|---|--------------------------------|
| Full upgrade health check  | 5                | 305              | Run the syscheck utility to verify the MPS server is operationally sound.                       | <a href="#">Procedure 4</a>    |
| Post upgrade EuiDB restore   | 5                | 350              | Restore EuiDB database  | <a href="#">Procedure A.32</a> |
| <p><b>Note:</b> Make sure that before restoring the Standby PDBA, if the extreme DB is present on the setup then the PDB capacity should be set as per the DB capacity via epapconfig menu</p> <p>Restore PDB Backup</p> <p><b>Note:</b> If Second PDBA site is getting migrated, take backup from the already upgraded site and restore it on the PDBA node getting migrated. Refer <a href="#">Procedure A.43</a> and <a href="#">Procedure A.6</a> for PDB Backup.</p> <p>Note: If the network speed between two PDBAs is very slow, follow the original procedure to restore PDBA via MySQL dump process. Refer to <a href="#">Procedure A.33</a>.</p> | *See notes below | *See notes below | Restore EPAP 16.3.1/16.4.1/17.0.0.x/17.1.x/18.0.0.x PDB backup taken before fresh installation  | <a href="#">Procedure A.33</a> |
| Restore RTDB Backup  | *See notes below | *See notes below | Restore EPAP 16.3.1/16.4.1/17.0.0.x/17.1.x/18.0.0.x RTDB backup taken before fresh installation | <a href="#">Procedure A.36</a> |
| Reload RTDB from mate  | 30               | 380              | Reload RTDB from mate on Non-prov MPS B   | <a href="#">Procedure A.11</a> |
| Exchange the keys between active EPAP site and standby EPAP site   | 30               | 410              | Keys exchange between active and standby EPAP sites.  | <a href="#">Procedure A.35</a> |

|   |                  |                  |   |                                |
|---|------------------|------------------|---|--------------------------------|
| Reset RTDB homing policy on Non-Prov nodes<br><br><b>Note:</b><br>1. Non-Prov must be homed to the Non-Upgraded PDBA (This applicable in case of first PDBA site upgrade)<br><br>2. Skip this step during the second PDBA site migration  | *See notes below | *See notes below | Modify the RTDB homing to Non-Upgraded PDBA on Non-Prov Nodes   | <a href="#">Procedure A.30</a> |
| Reset RTDB homing policy on Prov PDBA   | 15               | 425              | In case of Mixed EPAP node being migrated then RTDB homing must point to its own PDBA (Self)  | <a href="#">Procedure A.44</a> |
| Reconfigure Additional EPAP configurations<br><br><b>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then rediscover the EPAP on EMS.</b><br><br><b>Also, QS is not supported in EPAP 18.0 release still Note down the Query srver details for future reference</b> | 45               | 470              | Reconfigure the EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations<br><br>Note: If HTTP was enabled before migration, then reconfigure the HTTP configuration by disabling the configuration first and then enabling the configuration again from EPAP GUI | <a href="#">Procedure A.41</a> |
| Take snapshot of uiEdit parameters on upgraded EPAP 18.0.0.y servers  | 10               | 480              | Take a snapshot of uiEdit parameters to be compared after migration is complete   | <a href="#">Procedure A.39</a> |
| Compare uiEdit parameters   | 10               | 490              | Compare the snapshot taken in EPAP 18.0.0.y with the one taken on the EPAP 16.3/16.4 /17.0.0.x/18.0.0.x before migration  | <a href="#">Procedure A.42</a> |

|   |    |                                 |   |                                |
|---|----|---------------------------------|---|--------------------------------|
| Start the PDB software  | 10 | 500                             | Re-activate the PDB on the Provisionable MPS A servers (PDBonly in this case).<br><b>Note: Step only necessary during upgrade of a Provisionable mated EPAP pair (mixed EPAP).</b>  | <a href="#">Procedure 27</a>   |
| **Configure Auto Backup.  | 5  | 505                             | Configure auto backup to schedule RTDB Auto-Backup on NonProvisionable EPAP   | <a href="#">Procedure A.25</a> |
| Accept the upgrade after successful soak period<br>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given.<br><br><b>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then rediscover the EPAP on EMS.</b> | 5  | This is done in a separate MTC. | Accept the upgrade on both MPS-A after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure 22</a>   |

**Note:**

- When the Non-Upgraded PDBA site (Currently on 16.3.1/16.4.1/17.0.0.x) will be upgraded, do the following:
  - a. Perform switchover on the Non-Upgraded site(Currently on 16.3.1/16.4.1/17.0.0.x) to make it as Standby PDBA.
  - b. The already upgraded site (on EPAP 18.0) will be the newly Active PDBA.
  - c. Then follow the Table 11 Full Upgrade Phases Dual Mixed with Live Provisioning to perform the upgrade.
- The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.
- The time needed to restore PDB backup (MysqIDump) is dependent on the amount of PDB database.
- This procedure cannot specify an exact length of time since different customers have different amounts of application data.
- If configuring 4 switches, add 30 minutes to the current setup.

- The time needed to reload EAGLE cards is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.
- Configuring auto backup is a compulsory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.
- In a dual PDBonly/dual Mixed server setup, if one PROV (StandAlone/Mixed-EPAP) site is upgraded to EPAP 18.x while the other PROV site remains on EPAP 16.3, do not designate the EPAP 18.x site as the Active provisioning server. The already upgraded EPAP 18.x will be made the Active provisioning server during the maintenance window taken for upgrading the other EPAP 16.3 (or lower) provisioning site to 18.x.

### 3.1.6 Full Upgrade Phases for Standalone PDB without live provisioning

Note: Do not add DN and DNBlock with Isblset parameter until all nodes in the network are migrated to EPAP 18.0 successfully.

**Table 12: Full Upgrade Phases on Standalone PDB**

| Phase   | Elapsed Time (Minutes) |                  | Activity   | Procedure  |
|---|------------------------|------------------|--|--|
|   | This Step              | Cum.             |  |  |
| Connectivity setup                                    | 15                     | 15               | Set up connectivity to the MPS servers.  | <a href="#">Procedure 1</a>                                    |
| Verify Full upgrade                                   | 5                      | 20               | Verify this should be a Full upgrade.  | <a href="#">Procedure 2</a>                                    |
| Pre-upgrade check                                     | 15                     | 35               | Verify requirements for upgrade are met.   | <a href="#">Procedure 3</a>                                    |
| Pre-upgrade health check                              | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound.                | <a href="#">Procedure 4</a>                                    |
| Assess readiness for upgrade                          | 15                     | 55               | Assess the server's readiness for upgrade.   | <a href="#">Procedure 14</a>                                   |
| EPAP 16.3/16.4/17.0.0.x /17.1.x EuiDB and PDB Backups | *See notes below       | *See notes below | Backup application databases and other pertinent information in case of backout required | <a href="#">Procedure A.6</a><br><a href="#">Procedure A.8</a> |

|   |                  |                  |  |                                |
|---|------------------|------------------|--|--------------------------------|
| Take snapshot of uiEdit parameters                                | 15               | 70               | Take a snapshot of uiEdit parameters to be compared after migration is complete  | <a href="#">Procedure A.39</a> |
| Change MySql engine schema  | 15               | 85               | Change mysql schema from myiasm to innodb<br><br><b>Note:</b> This procedure is not to be performed if migrating from 17.0.0.x/17.1.x/18.0.0.x.  | <a href="#">Procedure A.31</a> |
| Save the EPAP 16.3/16.4/17.0.0.x/17.1.x additional configurations | 20               | 105              | Save the NTP, EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations, HTTP configurations   | <a href="#">Procedure A.40</a> |
| Pre-upgrade Backup  | *See notes below | *See notes below | Backup application databases and other pertinent information.<br><b>Note: Copy database files (PDB and EuiDB) to backup server</b>   | <a href="#">Procedure 15</a>   |
| Pre-upgrade system time check                                     | 5                | 110              | Pre-upgrade system time check.   | <a href="#">Procedure 16</a>   |
| IPM E5-APP-B Server   | 45               | 155              | This Procedure will IPM the E5-APP-B Server  | <a href="#">Procedure A.13</a> |
| Configure Server 1A   | 5                | 160              | Set hostname, designation, function and time.  | <a href="#">Procedure 5</a>    |
| Install Server  | 30               | 190              | Install software on sides 1A   | <a href="#">Procedure 7</a>    |
| Post-install application processing                               | 30               | 220              | Perform first time configuration Refer to <a href="#">Procedure A.14</a> to configure the Standalone PDB in segmented network configuration.<br><b>Note: Do not start the PDBA software after creating PDB</b> | <a href="#">Procedure 11</a>   |
| Full upgrade health check   | 5                | 225              | Run the syscheck utility to verify the MPS server is operationally sound.  | <a href="#">Procedure 4</a>    |
| Post upgrade EuiDB restore  | 5                | 230              | Restore EuiDB database taken before fresh installation   | <a href="#">Procedure A.32</a> |
| Restore PDB Backup  | *See notes below | *See notes below | Restore EPAP 16.3/16.4/17.0.0.x/17.1.x/18.x PDB backup taken before fresh installation   | <a href="#">Procedure A.33</a> |

|   |    |     |   |                                |
|---|----|-----|---|--------------------------------|
| Reconfigure Additional EPAP configurations<br><br><b>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then rediscover the EPAP on EMS.</b><br><br><b>Also, QS is not supported in EPAP 18.0 release still Note down the Query srver details for future reference</b> | 45 | 275 | Reconfigure the EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations<br><br>Note: If HTTP was enabled before migration, then reconfigure the HTTP configuration by disabling the configuration first and then enabling the configuration again from EPAP GUI | <a href="#">Procedure A.41</a> |
| Take snapshot of uiEdit parameters on upgraded EPAP 18.0.0.y servers  | 10 | 285 | Take a snapshot of uiEdit parameters to be compared after migration is complete   | <a href="#">Procedure A.39</a> |
| Compare uiEdit parameters   | 10 | 295 | Compare the snapshot taken in EPAP 18.0.0.y with the one taken on the EPAP 16.3/16.4/17.0.0.x/18.0.0.x before migration   | <a href="#">Procedure A.42</a> |
| Start the PDB software.   | 10 | 305 | Re-activate the PDB on the upgraded PDB server  | <a href="#">Procedure 27</a>   |
| **Configure Auto Backup.  | 5  | 310 | Configure auto backup to schedule RTDB Auto-Backup on NonProvisionable EPAP   | <a href="#">Procedure A.25</a> |
| Configure PDB capacity  | 5  | 315 | Configure the PDB capacity for 510 M DNs following the given procedure.<br><br>This step is optional. Customers may follow it if they need to configure or update capacity at this stage.   | <a href="#">Procedure A.52</a> |

|  |   |                                 |   |                              |
|--|---|---------------------------------|---|------------------------------|
| <p>Accept the upgrade after successful soak period<br/>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given.</p> <p>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then rediscover the EPAP on EMS.</p> | 5 | This is done in a separate MTC. | Accept the upgrade on both MPS-A after sufficient soak period of around 1-7 days (Depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure 22</a> |
|--|---|---------------------------------|---|------------------------------|

**Note:**

- The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.
- Configuring Auto backup is a compulsory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.
- In a dual PDBonly/dual Mixed server setup, if one PROV (StandAlone/Mixed-EPAP) site is upgraded to EPAP 18.x while the other PROV site remains on EPAP 16.3, do not designate the EPAP 18.x site as the Active provisioning server. The already upgraded EPAP 18.x will be made the Active provisioning server during the maintenance window taken for upgrading the other EPAP 16.3 (or lower) provisioning site to 18.x.

### 3.1.7 Full upgrade Phases for Dual PDBonly with live provisioning

**Note:** Refer Appendix E for things to be taken care while performing full upgrade with live provisioning

**Note:** Do not add DN and DNBlock with lsblset parameter until all nodes in the network are migrated to EPAP 18.0 successfully.

**Table 13: Full Upgrade Phases Dual PDBonly**

| Phase   | Elapsed Time (Minutes) |                  | Activity  | Procedure  |
|---|------------------------|------------------|---|--|
|   | This Step              | Cum.             |   |  |
| Connectivity setup  | 15                     | 15               | Set up connectivity to the MPS servers.   | <a href="#">Procedure 1</a>                                    |
| Verify Full upgrade   | 5                      | 20               | Verify this should be a Full upgrade.   | <a href="#">Procedure 2</a>                                    |
| Pre-upgrade check   | 15                     | 35               | Verify requirements for upgrade are met.  | <a href="#">Procedure 3</a>                                    |
| Pre-upgrade health check  | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound.   | <a href="#">Procedure 4</a>                                    |
| Assess readiness for upgrade  | 15                     | 55               | Assess the server's readiness for upgrade.  | <a href="#">Procedure 14</a>                                   |
| EPAP 16.3/16.4/17.0.0.x/17.1.x EuiDB and PDB Backups  | *See notes below       | *See notes below | Backup application databases and other pertinent information in case of backout required  | <a href="#">Procedure A.6</a><br><a href="#">Procedure A.8</a> |
| Take snapshot of uiEdit parameters  | 10                     | 65               | Take a snapshot of uiEdit parameters to be compared after migration is complete   | <a href="#">Procedure A.39</a>                                 |
| Clear the repl logs   | 15                     | 80               | STOP ACTIVE PDBA AND VERIFY REPL LOGS<br><br><b>NOTE: Provisioning should be stopped while following this procedure to clear repl logs.</b> | <a href="#">Procedure A.28</a>                                 |
| Remove remote PDBA IP from Standby PDBA site<br><br>Note: Make sure remote PDBA is present in Active PDBA site<br>Refer Appendix E. | 15                     | 95               | Delete the remote (Active) PDBA IP on Standby PDBA via epapconfig menu  | <a href="#">Procedure A.29</a>                                 |
| Reset RTDB homing policy to remote PDB  | 15                     | 110              | Modify the RTDB homing policy to active preferred alternate allowed   | <a href="#">Procedure A.30</a>                                 |

|  |                  |                  |  |                                |
|--|------------------|------------------|--|--------------------------------|
| Change MySql engine schema   | 15               | 125              | Change mysql schema from myiasm to innoDB<br><br><b>Note:</b> This procedure is not to be performed if migrating from 17.0.0.x/17.1.x/18.0.0.x   | <a href="#">Procedure A.31</a> |
| Save the EPAP 16.3/16.4/17.0.0.x/17.1.x additional configurations  | 20               | 145              | Save the NTP, EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations, HTTP configurations   | <a href="#">Procedure A.40</a> |
| Pre-upgrade Backup<br><br>Note: Take PDB backup from the node migrated first in the network Refer to <a href="#">Procedure A.6</a> . | *See notes below | *See notes below | Backup application databases and other pertinent information.  | <a href="#">Procedure 15</a>   |
| Pre-upgrade system time check  | 5                | 150              | Pre-upgrade system time check.   | <a href="#">Procedure 16</a>   |
| IPM E5-APP-B Server  | 45               | 195              | This procedure will IPM the E5-APP-B Server  | <a href="#">Procedure A.13</a> |
| Configure Server 1A  | 5                | 200              | Set hostname, designation, function and time.  | <a href="#">Procedure 5</a>    |
| Install Server   | 30               | 230              | Install software on sides 1A   | <a href="#">Procedure 7</a>    |
| Post-install application processing  | 30               | 260              | Perform first time configuration Refer to <a href="#">Procedure A.14</a> to configure the Standalone PDB in segmented network configuration.<br><b>Note: Do not start the PDBA software after creating PDB</b>   | <a href="#">Procedure 11</a>   |
| Change DB architecture from Compact to eXtreme   | 10               | 270              | Change DB architecture from compact to Extreme<br><br><b>NOTE: This procedure should only be followed, if the PDBonly server was already in extreme architecture before full upgrade. Hence it should be converted to extreme architecture after full upgrade.</b> | <a href="#">Procedure 13</a>   |

|   |                  |                  |   |                                |
|---|------------------|------------------|---|--------------------------------|
|   |                  |                  |   |                                |
| Full upgrade health check   | 5                | 275              | Run the syscheck utility to verify the MPS server is operationally sound.   | <a href="#">Procedure 4</a>    |
| Post upgrade EuiDB restore  | 5                | 280              | Restore EuiDB database  | <a href="#">Procedure A.32</a> |
| <p><b>Note:</b> Make sure that before restoring the Standby PDBA, if the extreme DB is present on the setup then the PDB capacity should be set as per the DB capacity via epapconfig menu</p> <p>Restore PDB Backup</p> <p><b>Note:</b> If Second PDBA site is getting migrated, take backup from the already upgraded site and restore it on the PDBA node getting migrated.</p> <p>Refer to <a href="#">Procedure A.43</a> for PDB Restore and <a href="#">Procedure A.6</a> for PDB Backup.</p> | *See notes below | *See notes below | Restore EPAP 16.3/16.4/17.0.0.x/17.1.x/18.0.0.x PDB backup taken before fresh installation  | <a href="#">Procedure A.33</a> |
| Exchange the keys between active and standby PDB  | 30               | 310              | Key exchange between Active PDB and Standby PDB   | <a href="#">Procedure A.35</a> |
| <p>Reconfigure Additional EPAP configurations</p> <p><b>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then</b></p>  | 45               | 355              | <p>Reconfigure the EMS, Automatic PDB-RTDB backup, Configure file transfer, schedule EPAP Tasks configurations</p> <p>Note: If HTTP was enabled before migration, then reconfigure the HTTP configuration by disabling the configuration first and then</p> | <a href="#">Procedure A.41</a> |

|   |                  |                  |   |                                |
|---|------------------|------------------|---|--------------------------------|
| <p><b>rediscover the EPAP on EMS.</b></p> <p><b>Also, QS is not supported in EPAP 18.0 release still Note down the Query srver details for future reference</b></p> |                  |                  | enabling the configuration again from EPAP GUI  |                                |
| Take snapshot of uiEdit parameters on EPAP 18.0.0.y servers   | 10               | 365              | Take a snapshot of uiEdit parameters to be compared after migration is complete   | <a href="#">Procedure A.39</a> |
| Compare uiEdit parameters   | 10               | 375              | Compare the snapshot taken in EPAP 18.0.0.y with the one taken on the EPAP 16.3/16.4/17.0.0.x/18.0.0.x before migration   | <a href="#">Procedure A.42</a> |
| Start the PDB software.   | 10               | 385              | Re-activate the PDB on the Provisionable MPS A servers (PDBonly in this case). <b>Note:</b> Step only necessary during upgrade of a Provisionable mated EPAP pair (mixed EPAP + PDBonly). | <a href="#">Procedure 27</a>   |
| **Configure Auto Backup.  | 5                | 390              | Configure auto backup to schedule RTDB Auto-Backup on NonProvisionable EPAP   | <a href="#">Procedure A.25</a> |
| Configure PDB capacity  | 5                | 395              | Configure the PDB capacity for 510 M DNs following the given procedure.<br><br>This step is optional. Customers may follow it if they need to configure or update capacity at this stage. | <a href="#">Procedure A.52</a> |
| Reboot EAGLE Cards  | *See notes below | *See notes below | Reboot Eagle Cards to reload updated DB   | <a href="#">Procedure 21</a>   |

|  |   |                                 |   |                              |
|--|---|---------------------------------|---|------------------------------|
| <p>Accept the upgrade after successful soak period</p> <p>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given.</p> <p><b>NOTE: After EPAP upgrade, if EMS is not able to receive alarms from EPAP, delete the EPAP from EMS discovery screen and then rediscover the EPAP on EMS.</b></p> | 5 | This is done in a separate MTC. | Accept the upgrade on both MPS-A after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure 22</a> |
|--|---|---------------------------------|---|------------------------------|

**Note:**

- When the Non-Upgraded PDBA site (Currently on 16.3.1/16.4.1/17.0.0.x) will be upgraded, do the following:
  - a. Perform switchover on the Non-Upgraded site(Currently on 16.3.1/16.4.1/17.0.0.x) to make it as Standby PDBA.
  - b. The already upgraded site (on EPAP 18.0) will be the newly Active PDBA.
  - c. Then follow the Table 13 Full Upgrade Phases Dual PDBonly above to perform the upgrade.
- The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.
- Configuring Auto backup is a compulsory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.
- In a dual PDBonly/dual Mixed server setup, if one PROV (StandAlone/Mixed-EPAP) site is upgraded to EPAP 18.x while the other PROV site remains on EPAP 16.3, do not designate the EPAP 18.x site as the Active provisioning server. The already upgraded EPAP 18.x will be made the Active provisioning server during the maintenance window taken for upgrading the other EPAP 16.3 (or lower) provisioning site to 18.x.

### Dual Upgrade Upgrade Phases

**Note:** DIU upgrade is not yet supported in EPAP.

The following table illustrates the progression of the various Dual Image Upgrade (DIU) process by procedure with phases, their estimated duration, and the procedure to be performed in every phase. The estimated duration of each upgrade phase may vary due to the differences in the typing ability and system configuration. The procedures outlined in the following tables are to be run in the same order.

**Note:** Before proceeding with the Dual Image Upgrade procedure, refer to section [Upgrading Provisionable mixed EPAP Mated Pairs](#) and [Upgrading EPAP Non-Provisionable MPS Servers](#) to get the overview of the EPAP setup and upgrade order.

### 3.1.8 Dual Image Upgrade Phases for Mixed EPAP without Live Provisioning

**Table 14: Dual Image Upgrade Phases for Mixed EPAP without live provisioning**

| Phase                         | Elapsed Time (Minutes) |                  | Activity  | Procedure                    |
|-------------------------------|------------------------|------------------|---|------------------------------|
|                               | This Step              | Cum.             |   |                              |
| Connectivity setup            | 15                     | 15               | Set up connectivity to the MPS servers.                                   | <a href="#">Procedure 1</a>  |
| Verify Dual Image Upgrade     | 5                      | 20               | Verify this should be a Dual Image Upgrade.                               | <a href="#">Procedure 2</a>  |
| Pre-upgrade check             | 15                     | 35               | Verify requirements for upgrade are met.                                  | <a href="#">Procedure 3</a>  |
| Pre-upgrade health check      | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound. | <a href="#">Procedure 4</a>  |
| Assess readiness for upgrade  | 15                     | 55               | Assess the server's readiness for upgrade.                                | <a href="#">Procedure 14</a> |
| Pre-upgrade Backup            | *See notes below       | *See notes below | Backup application databases and other pertinent information.             | <a href="#">Procedure 15</a> |
| Pre-upgrade system time check | 5                      | 60               | Pre-upgrade system time check.  | <a href="#">Procedure 16</a> |
| Upgrade MPS B                 | 30                     | 90               | Run the upgrade procedure on MPS B.                                       | <a href="#">Procedure 18</a> |
| Upgrade MPS A                 | 30                     | 120              | Run the upgrade procedure on MPS A.                                       | <a href="#">Procedure 19</a> |
| Post-upgrade health check     | 5                      | 125              | Run the syscheck utility to verify the MPS server is operationally sound. | <a href="#">Procedure 4</a>  |

| Phase  | Elapsed Time (Minutes) |                  | Activity   | Procedure                      |
|--|------------------------|------------------|--|--------------------------------|
|  | This Step              | Cum.             |  |                                |
| Clear the Replication logs.                                      | 20                     | 430              | Clear the replication logs before connecting both the PDBAs<br><br><b>Note: Perform this procedure in case of dual mixed EPAP. Provisioning should be stopped while following this procedure to clear repl logs.</b> | <a href="#">Procedure A.28</a> |
| Exchange the keys between active EPAP site and standby EPAP site | 30                     | 465              | Keys exchange between active and standby EPAP sites.<br><br><b>Note: Perform this procedure in case of dual mixed EPAP.</b>  | <a href="#">Procedure A.35</a> |
| Switchover PDBA to Active  | 5                      | 130              | Switchover the PDBA state to Active  | <a href="#">Procedure A.48</a> |
| Configure Switches   | 30**                   | 160**            | Re-configure the switch and verify that EAGLE SM cards are getting auto negotiated to 1000Mbps/Full Duplex.<br><br><b>Note: Skip this step if speed is already set to 1000Mbps/Full Duplex.</b>                      | <a href="#">Procedure 9</a>    |
| Post-upgrade Backups   | *See notes below       | *See notes below | Backup application databases and other pertinent information.  | <a href="#">Procedure 15</a>   |

| Phase  | Elapsed Time (Minutes) |                                 | Activity  | Procedure                      |
|--|------------------------|---------------------------------|---|--------------------------------|
|  | This Step              | Cum.                            |   |                                |
| Accept the upgrade after successful soak period<br><br>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given. | 5                      | This is done in a separate MTC. | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure A.49</a> |

**Note:**

- The time needed back up PDB data depends on the amount of application data. The duration of this procedure cannot specify an exact length of time to be specified as different customers have different amounts of application data.
- The time needed to restore PDB backup (MysqIDump) depends on the volume of data in the PDB database.
- The time needed to reload EAGLE cards depends on the amount of application data. The duration of this procedure cannot be specified as different customers have different amounts of application data.
- If configuring 4 switches, add 30 minutes to the current setup.
- Configuring auto backup is a compulsory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.

### 3.1. 9 Dual Image Upgrade Phases for Dual Mixed EPAP without Live Provisioning

This procedure lists the procedure to upgrade Dual Mixed EPAP servers without live provisioning.

| Phase  | Activity   | Procedure                                |
|--|--|--|
| Upgrading when both servers are on EPAP are on the 17.0.0.6 and above release. | Upgrade Standby PDBA site on EPAP 17.0.0.6 and above release to the latest EPAP release. After this switchover, upgrade the setup PDBA to Active and then upgrade the Standby PDBA site. | Refer to <a href="#">Procedure 3.1.9</a> |

### 3.1.10 Dual Image Upgrade Phases for Non-Provisionable EPAP with or without live provisioning

Table 15: Dual Image Upgrade Phases for Non-Provisionable EPAP with or without live provisioning

| Phase                         | Elapsed Time (Minutes) |                  | Activity  | Procedure                    |
|-------------------------------|------------------------|------------------|---|------------------------------|
|                               | This Step              | Cum.             |   |                              |
| Connectivity setup            | 15                     | 15               | Set up connectivity to the MPS servers.                                   | <a href="#">Procedure 1</a>  |
| Verify Dual Image Upgrade     | 5                      | 20               | Verify this should be a Dual Image Upgrade.                               | <a href="#">Procedure 2</a>  |
| Pre-upgrade check             | 15                     | 35               | Verify requirements for upgrade are met.                                  | <a href="#">Procedure 3</a>  |
| Pre-upgrade health check      | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound. | <a href="#">Procedure 4</a>  |
| Assess readiness for upgrade  | 15                     | 55               | Assess the server's readiness for upgrade.                                | <a href="#">Procedure 14</a> |
| Pre-upgrade Backup            | *See notes below       | *See notes below | Backup application databases and other pertinent information.             | <a href="#">Procedure 15</a> |
| Pre-upgrade system time check | 5                      | 60               | Pre-upgrade system time check.  | <a href="#">Procedure 16</a> |
| Upgrade MPS B                 | 30                     | 90               | Perform the upgrade procedure on MPS B.                                   | <a href="#">Procedure 18</a> |

| Phase  | Elapsed Time (Minutes) |                                 | Activity   | Procedure                      |
|--|------------------------|---------------------------------|--|--------------------------------|
|  | This Step              | Cum.                            |  |                                |
| Upgrade MPS A  | 30                     | 120                             | Perform the upgrade procedure on MPS A.  | <a href="#">Procedure 19</a>   |
| Post-upgrade health check  | 5                      | 125                             | Run the syscheck utility to verify the MPS server is operationally sound.  | <a href="#">Procedure 4</a>    |
| Configure Switches   | 30**                   | 165**                           | Re-configure the switch and verify that EAGLE SM cards are getting auto negotiated to 1000Mbps/Full Duplex.<br><br><b>Note: Skip this step if speed is already set to 1000Mbps/Full Duplex.</b>  | <a href="#">Procedure 9</a>    |
| Post-upgrade Backups   | *See notes below       | *See notes below                | Back up application databases and other pertinent information.   | <a href="#">Procedure 15</a>   |
| Accept the upgrade after successful soak period<br><br>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given. | 5                      | This is done in a separate MTC. | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to verify that everything works fine after the upgrade. | <a href="#">Procedure A.49</a> |

**Note:**

- The time needed to back up application data depends on the amount of application data. The duration of this procedure cannot specify an exact length of time sincebe specified as different customers have different amounts of application data.
- The time needed to restore PDB backup (MysqIDump) depends on the volume of data in the PDB database.
- The time needed to reload EAGLE cards depends on the amount of application data. The duration of this procedure cannot specify an exact length of time sincebe specified as different customers have different amounts of application data.

- If configuring 4 switches, add 30 minutes to the current setup.
- Configuring auto backup is a mandatory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.

### 3.1.11 Dual Image Upgrade Phases for Dual Mixed with live provisioning

**Table 16: Dual Image Upgrade Phases for Dual Mixed with live provisioning**

| Phase   | Elapsed Time (Minutes) |                  | Activity  | Procedure                    |
|---|------------------------|------------------|---|------------------------------|
|   | This Step              | Cum.             |   |                              |
| Connectivity setup  | 15                     | 15               | Set up connectivity to the MPS servers.                                   | <a href="#">Procedure 1</a>  |
| Verify Dual Image Upgrade   | 5                      | 20               | Verify this should be a Dual Image Upgrade.                               | <a href="#">Procedure 2</a>  |
| Pre-upgrade check   | 15                     | 35               | Verify requirements for upgrade are met.                                  | <a href="#">Procedure 3</a>  |
| Pre-upgrade health check  | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound. | <a href="#">Procedure 4</a>  |
| Assess readiness for upgrade  | 15                     | 55               | Assess the server's readiness for upgrade.                                | <a href="#">Procedure 14</a> |
| Pre-upgrade Backup<br>Note: Take PDB backup from the node migrated first in the network. Refer to <a href="#">Procedure A.6</a> .<br><br>Note: If the network speed between two PDBA's is very slow, follow the original procedure to perform PDBA backup via MySQL dump process. Refer to <a href="#">Procedure A.27</a> . | *See notes below       | *See notes below | Back up application databases and other pertinent information.            | <a href="#">Procedure 15</a> |

| Phase   | Elapsed Time (Minutes) |      | Activity   | Procedure                      |
|---|------------------------|------|--|--------------------------------|
|   | This Step              | Cum. |  |                                |
| Clear the repl logs   | 15                     | 85   | Verify that replication logs are cleared between active and standby EPAPs.<br><br><b>NOTE: Provisioning should be stopped while following this procedure to clear repl logs.</b> | <a href="#">Procedure A.28</a> |
| Reset RTDB homing policy  | 15                     | 100  | Modify the RTDB homing policy.   | <a href="#">Procedure A.30</a> |
| Remove remote PDBA IP from Standby PDBA site<br><br>Note: Make sure remote PDBA is present in Active PDBA site.<br>Refer <a href="#">Appendix E</a> . | 15                     | 115  | Delete the remote (Active) PDBA IP on Standby PDBA via epapconfig menu.  | <a href="#">Procedure A.29</a> |
| Pre-upgrade system time check   | 5                      | 60   | Pre-upgrade system time check.   | <a href="#">Procedure 16</a>   |
| Upgrade MPS B   | 30                     | 90   | Perform the upgrade procedure on MPS B.  | <a href="#">Procedure 18</a>   |
| Upgrade MPS A   | 30                     | 120  | Perform the upgrade procedure on MPS A.  | <a href="#">Procedure 19</a>   |
| Post-upgrade health check   | 5                      | 125  | Run the syscheck utility to verify the MPS server is operationally sound.  | <a href="#">Procedure 4</a>    |
| Exchange the keys between active EPAP site and standby EPAP site  | 30                     | 410  | Keys exchange between active and standby EPAP sites.   | <a href="#">Procedure A.35</a> |

| Phase  | Elapsed Time (Minutes) |                  | Activity  | Procedure                      |
|--|------------------------|------------------|---|--------------------------------|
|  | This Step              | Cum.             |   |                                |
| Reset RTDB homing policy on Non-Prov nodes<br><br><b>Note:</b><br>1. Non-Prov must be homed to the Non-Upgraded PDBA (This applicable in case of first PDBA site upgrade)<br><br>2. Skip this step during the second PDBA site migration | *See notes below       | *See notes below | Modify the RTDB homing to Non-Upgraded PDBA on Non-Prov Nodes   | <a href="#">Procedure A.30</a> |
| Reset RTDB homing policy on Prov PDBA  | 15                     | 425              | If Mixed EPAP node is migrated, then RTDB homing must point to its own PDBA (Self).   | <a href="#">Procedure A.44</a> |
| Configure Switches   | 30**                   | 165**            | Re-configure the switch and verify that EAGLE SM cards are getting auto negotiated to 1000Mbps/Full Duplex.<br><br><b>Note: Skip this step if speed is already set to 1000Mbps/Full Duplex.</b> | <a href="#">Procedure 9</a>    |
| Post-upgrade Backups   | *See notes below       | *See notes below | Back up application databases and other pertinent information.  | <a href="#">Procedure 15</a>   |

| Phase  | Elapsed Time (Minutes) |                                 | Activity  | Procedure                      |
|--|------------------------|---------------------------------|---|--------------------------------|
|  | This Step              | Cum.                            |   |                                |
| Accept the upgrade after successful soak period<br><br>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given. | 5                      | This is done in a separate MTC. | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure A.49</a> |

**Note:**

- When the non-upgraded PDBA site (Currently on 17.0.0.6 or higher/17.1/18.0.0.x) will be upgraded, do the following:
  - a. Perform switchover on the non-upgraded site (Currently on 17.0.0.6 or higher/17.1/18.0.0.x) to make it as Standby PDBA.
  - b. The already upgraded site (on EPAP 18.0.0.y) will be the newly Active PDBA.
  - c. Then follow the above table Dual Image Upgrade Phases Dual Mixed with Live Provisioning to perform the upgrade.
- The time needed to back up application data depends on the amount of application data. The duration of this procedure cannot specify an exact length of time to be specified as different customers have different amounts of application data.
- The time needed to restore PDB backup (MysqIDump) depends on the amount of data in the PDB database.
- The duration of this procedure cannot specify an exact length of time sincebe specified as different customers have different amounts of application data.
- The time needed to reload EAGLE cards depends on the amount of application data. The duration of this procedure cannot specify an exact length of time to be specified as different customers have different amounts of application data.
- If configuring 4 switches, add 30 minutes to the current setup.
- Configuring auto backup is a compulsory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.

### 3.1.12 Dual Image Upgrade Phases for Standalone PDB without live provisioning

Table 17: Dual Image Upgrade Phases for Standalone PDB without live provisioning

| Phase                         | Elapsed Time (Minutes) |                  | Activity  | Procedure                      |
|-------------------------------|------------------------|------------------|---|--------------------------------|
|                               | This Step              | Cum.             |   |                                |
| Connectivity setup            | 15                     | 15               | Set up connectivity to the MPS servers.                                   | <a href="#">Procedure 1</a>    |
| Verify incremental upgrade    | 5                      | 20               | Verify this should be an incremental upgrade.                             | <a href="#">Procedure 2</a>    |
| Pre-upgrade check             | 15                     | 35               | Verify requirements for upgrade are met.                                  | <a href="#">Procedure 3</a>    |
| Pre-upgrade health check      | 5                      | 40               | Run the syscheck utility to verify the MPS server is operationally sound. | <a href="#">Procedure 4</a>    |
| Assess readiness for upgrade  | 15                     | 55               | Assess the server's readiness for upgrade.                                | <a href="#">Procedure 14</a>   |
| Pre-upgrade Backup            | *See notes below       | *See notes below | Backup application databases and other pertinent information.             | <a href="#">Procedure 15</a>   |
| Pre-upgrade system time check | 5                      | 60               | Pre-upgrade system time check.  | <a href="#">Procedure 16</a>   |
| Upgrade MPS A                 | 30                     | 90               | Perform the upgrade procedure on MPS A.                                   | <a href="#">Procedure 18</a>   |
| Post-upgrade health check     | 5                      | 95               | Run the syscheck utility to verify the MPS server is operationally sound. | <a href="#">Procedure 4</a>    |
| Switchover PDBA to Active     | 5                      | 100              | Switchover the PDBA state to Active                                       | <a href="#">Procedure A.48</a> |
| Post-upgrade Backups          | *See notes below       | *See notes below | Back up application databases and other pertinent information.            | <a href="#">Procedure 15</a>   |

| Phase  | Elapsed Time (Minutes) |                                 | Activity  | Procedure                      |
|--|------------------------|---------------------------------|---|--------------------------------|
|  | This Step              | Cum.                            |   |                                |
| Accept the upgrade after successful soak period<br><br>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given. | 5                      | This is done in a separate MTC. | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure A.49</a> |

**\*NOTE:** The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.

### 3.1.13 Dual Image Upgrade Phases for Dual PDBonly with live provisioning

| Phase                      | Elapsed Time (Minutes) |      | Activity  | Procedure                   |
|----------------------------|------------------------|------|---|-----------------------------|
|                            | This Step              | Cum. |   |                             |
| Connectivity setup         | 15                     | 15   | Set up connectivity to the MPS servers.                                   | <a href="#">Procedure 1</a> |
| Verify incremental upgrade | 5                      | 20   | Verify this should be an incremental upgrade.                             | <a href="#">Procedure 2</a> |
| Pre-upgrade check          | 15                     | 35   | Verify requirements for upgrade are met.                                  | <a href="#">Procedure 3</a> |
| Pre-upgrade health check   | 5                      | 40   | Run the syscheck utility to verify the MPS server is operationally sound. | <a href="#">Procedure 4</a> |

| Phase   | Elapsed Time (Minutes) |                  | Activity  | Procedure                      |
|---|------------------------|------------------|---|--------------------------------|
|   | This Step              | Cum.             |   |                                |
| Assess readiness for upgrade  | 15                     | 55               | Assess the server's readiness for upgrade.  | <a href="#">Procedure 14</a>   |
| Remove remote PDBA IP from Standby PDBA site<br><br>Note: Make sure remote PDBA is present in Active PDBA site<br>Refer Appendix E. | 15                     | 95               | Delete the remote (Active) PDBA IP on Standby PDBA via epapconfig menu  | <a href="#">Procedure A.29</a> |
| Clear the repl logs   | 15                     | 80               | STOP ACTIVE PDBA AND VERIFY REPL LOGS<br><br><b>NOTE: Provisioning should be stopped while following this procedure to clear repl logs.</b> | <a href="#">Procedure A.28</a> |
| Reset RTDB homing policy to remote PDB  | 15                     | 110              | Modify the RTDB homing policy to active preferred alternate allowed   | <a href="#">Procedure A.30</a> |
| Pre-upgrade Backup  | *See notes below       | *See notes below | Backup application databases and other pertinent information.   | <a href="#">Procedure 15</a>   |
| Pre-upgrade system time check   | 5                      | 60               | Pre-upgrade system time check.  | <a href="#">Procedure 16</a>   |
| Upgrade MPS A   | 30                     | 90               | Run the Upgrade procedure on MPS A.   | <a href="#">Procedure 19</a>   |
| Post-upgrade health check   | 5                      | 95               | Run the syscheck utility to verify the MPS server is operationally sound.   | <a href="#">Procedure 4</a>    |
| Exchange the keys between active and standby PDB  | 30                     | 300              | Key exchange between Active PDB and Standby PDB   | <a href="#">Procedure A.35</a> |
| Post-upgrade Backups  | *See notes below       | *See notes below | Backup application databases and other pertinent information.   | <a href="#">Procedure 15</a>   |

| Phase  | Elapsed Time (Minutes) |                                 | Activity  | Procedure                      |
|--|------------------------|---------------------------------|---|--------------------------------|
|  | This Step              | Cum.                            |   |                                |
| Accept the upgrade after successful soak period<br><br>NOTE: If the node is to be converted from Compact to eXtreme DB architecture, delay this step until the conversion is done and sufficient soak time is given. | 5                      | This is done in a separate MTC. | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure A.49</a> |

**NOTE:**

- When the non-upgraded PDBA site (Currently on 17.0.0.6 or higher/17.1/18.0.0.x) will be upgraded, do the following:
  - a. Perform switchover on the non-upgraded site (Currently on 17.0.0.6 or higher/17.1/18.0.0.x) to make it as Standby PDBA.
  - b. The already upgraded site (on EPAP 18.0.0.y) will be the newly Active PDBA.
  - c. Then follow the above table Dual Image Upgrade Phases for Dual PDBOnly with live provisioning to perform the upgrade.
- The time needed to back up application data depends on the amount of application data. The duration of this procedure cannot specify an exact length of time to be specified as different customers have different amounts of application data.
- The time needed to restore PDB backup (MysqLDump) depends on the volume of data in the PDB database. The duration of this procedure cannot be specified as different customers have different amounts of application data.
- The time needed to reload EAGLE cards depends on the amount of application data. The duration of this procedure cannot be specified as different customers have different amounts of application data.
- If configuring 4 switches, add 30 minutes to the current setup.
- Configuring auto backup is a compulsory step to enable PDB-RTDB translog pruning. Ignore this step if auto-backup is already configured.

## Backout Phases

Note: Before proceeding with the backout process, refer to [section 2.1](#), [section 2.2](#), [section 2.3](#) and [section 2.4](#) to get the overview of the EPAP setup and the backout order.

### 3.1.14 Backout Phases for Mixed and Non-Provisionable EPAP

Table 18: Backout Phases for Mixed and Non-Provisionable EPAP

| Phase                     | Elapsed Time (Hours or Minutes) |          | Activity   | Impact  | Procedure   |
|---------------------------|---------------------------------|----------|--|---|---|
|                           | This Step                       | Cum .    |  |   |   |
| Determine state of system | 15-30                           | 15-30    | Investigate and determine the state of the MPS system. This may take anywhere from 15 to 30 minutes.   | Cannot proceed with backout until failure analysis is complete. Some hand-fixes may be required before proceeding with backout. | Contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section. |
| Backout MPS A and B       | 900                             | 915-930  | Backout MPS A and B.   |   | <a href="#">Procedure A.45</a>  |
| Configure Switches        | 30*                             | 945-960* | Re-configure the switch and verify that EAGLE SM cards are getting auto negotiated to previous speed.<br><b>Note: Skip this step if speed before upgrade was 1000Mbps/Full Duplex.</b> | Verify that speed of switch is negotiated to previous speed.  | <a href="#">Procedure 9</a>   |

\*NOTE: If configuring 4 switches, add 30 minutes to the current setup.

### 3.1.15 Backout Phases for Standalone PDB

**Table 19 : Backout Phases for Standalone PDB**

| Phase                     | Elapsed Time (Hours or Minutes) |         | Activity   | Impact  | Procedure   |
|---------------------------|---------------------------------|---------|--|---|---|
|                           | This Step                       | Cum .   |  |   |   |
| Determine state of system | 15-30                           | 15-30   | Investigate and determine the state of the MPS system. This may take anywhere from 15 to 30 minutes. | Cannot proceed with backout until failure analysis is complete. Some hand-fixes may be required before proceeding with backout. | Contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section. |
| Backout PDBonly site.     | 600                             | 615-630 | Backout MPS A.   |   | <a href="#">Procedure A.46</a>  |
| Start the PDBA software   | 5                               | 620-635 | Re-activate the PDB on the Provisionable(PDBonly) MPS A servers.                                     |   | <a href="#">Procedure 27</a>  |

### 3.1.16 Log Files

All commands run during an upgrade or installation are logged in the “/var/TKLC/log/upgrade/upgrade.log” file. This log file is automatically initiated when upgrade software is invoked. This log file is rolled every time an upgrade is initiated. A total of up to five upgrade log files are stored on the server.

The upgrade wrapper script, ugwrap, logs its actions also to the “/var/TKLC/log/upgrade/ugwrap.log” file. This log file is rolled every time ugwrap is initiated. A total of up to five ugwrap log files are stored on the server.

## 4 DB ARCHITECTURE OVERVIEW

A new parameter LSBLSET would be added to DN and DN Block tables. This parameter will be used along with CGPNBLSET parameter on EAGLE that would be configured in the linkset table on EAGLE. If the value of LSBLSET parameter for a DN/DN Block on EPAP is found to match with the CGPNBLSET parameter of linkset table on EAGLE, it will be considered as blocklisted DN/DN Block. IAM message will be released (i.e. send back to originator) from EAGLE for the corresponding DN/DN Block. In all other cases, the existing functionality will continue to hold true.

The existing DN/ DN Block table parameters that are configured in the GUI are stored in multiple SQL tables, the DN table for example has only two parameters dnID and PT(port type) parameters in it.

There are other tables (example dn\_bl, dn\_asd etc. ) which help in storing the other parameters entered in GUI forms for DN and DNBlock.

While entering values write operation, is performed with the help of multiple joins with these supporting tables.

Finally, while displaying these values during retrieve operation the join of all the supporting tables is taken and the values fetched are displayed together.

The new parameter LSBLSET is part of dn\_bl table and dnB\_bl SQL tables for DN and DN Block respectively. This new parameter will be compatible only with eagle 46.9 release.

From EPAP 16.3 onwards different DB architectures are supported i.e., “Compact” and “Extreme”. This was done to support enhanced DB capacity.

EPAP 16.4 also supports both compact and extreme architecture. Post upgrade user will remain on existing architecture and will have to change the architecture from compact to extreme as an optional step if required. In changing the DB Architecture from “Compact” to “eXtreme”, the EPAP software shall restart to support the capacity expansion. Before the change in DB Architecture on EPAP, the connecting EAGLE must upgrade to the new release with SLIC cards. Also, the user has to enable the EPAPX feature on eagle card to support the eXtreme feature. Refer to section [4.3](#) to change DB Architecture from Compact to eXtreme.

NOTE: Section [4.2](#) and [4.3](#) are only required if customer setup is on compact architecture and wants to change architecture to extreme. Others i.e. thos who are already on extreme architecture or doesn't want to change to extreme architecture can skip these sections.

### Overview of DB architecture change from Compact to Extreme

Upgrade from EPAP 16.3.1/16.4.1/17.0 to EPAP 18.0 followed by DB Architecture conversion from Compact to Extreme must be carried out in following order with different MTC window:

**Note:** This step is required only when EPAP 18.0 and Eagle are to run in eXtreme mode. If EPAP and Eagle are to run in COMPACT mode, skip this section.

#### Phase-1 (Upgrade the EPAPs to EPAP 18.0 release in COMPACT mode):

NOTE: If the network consists of Non-PROVs and Mixed-EPAP, move to Phase-2 (Change the Mode from COMPACT mode to eXtreme mode for one Non-PROV site) otherwise continue with the following steps if the setup consists of StandAlonePDB + Non-PROVS.

1. First the Standalone PDBs will be upgraded to EPAP 18.0 in COMPACT mode. Refer to [section 3.4](#) for the upgrade process.
2. All non-PROVs should be upgraded to EPAP 18.0 in COMPACT mode. Refer to [section 3.4](#) for the upgrade process.

After this phase all EPAPs in the customer network are in EPAP 18.0 and are working in COMPACT mode.

### **Phase 2: Change the Mode from COMPACT mode to eXtreme mode for one Non-PROV site:**

Run the procedure in the following sequence.

1. Choose one EPAP-Eagle site from the customer network, which will be converted to eXtreme mode.
2. On the EAGLE, replace all non-SLIC SCCP cards to SLIC 64-bit SCCP cards. Change stpopts:EPAPX ON.
3. On the connecting Non-Prov, change the mode from COMPACT to eXtreme. Refer to [section 4.3](#) to change DB Architecture to eXtreme. The StandalonePDB should remain in COMPACT mode at this stage.
4. Restore RTDB on Non-Prov EPAP-A (refer to [Procedure A.10](#)) and after successfully restored RTDB on EPAP-A (refer to [Procedure A.11](#)), perform reload from mate on Non-Prov EPAP-B. Reload the Eagle from EPAP. Check that the DB downloads and EPAP-Eagle network work normally. Live provisioning flows all the way to Eagle. Let the node soak for some \*time-period.

### **Phase 3: Change the Mode from COMPACT mode to eXtreme mode for whole network:**

At this stage, we have seen that EPAP and Eagle are working fine in eXtreme mode. All the remaining Non-PROVs and StandAlone PDBs will be converted to eXtreme mode now. All the remaining Non-PROVs will be converted to eXtreme mode first. After all Non-PROVs are converted to eXtreme, the StandalonePDBs will be converted to eXtreme. For every site, before converting the EPAPs, connected eagles will have EPAPx feature ON.

1. First on the EAGLE, replace all non-SLIC SCCP cards to SLIC 64-bit SCCP cards. Change stpopts:EPAPX ON. Upgrade/Installation Guide 33 of 292 February 2023
2. On the connected Non-Prov, change the mode from Compact to eXtreme. Refer to [section 4.3](#) to change DB Architecture to eXtreme.
3. Reload the RTDB from already converted eXtreme mode RTDB in phase 1. Refer to [Procedure A.11](#).
4. Reload the Eagle SM cards from the EPAP.
5. Repeat steps 1 to 4 for all remaining Non-PROVs in the Customers network

6. Convert the StandalonePDBs to eXtreme mode.

## Change DB Architecture from COMPACT to eXtreme to support EAGLE release 46.7.0.0.0(eXtreme feature)

The following table illustrates the progression of the movement of DB Architecture from COMPACT to eXtreme by procedure with estimated times and may vary due to differences in operator input speed and system configuration. The procedures outlined in Table 21 below are to be followed in the order they are listed.

Before proceeding with the change DB Architecture process, refer to section 4 and section 5 to get the overview of the DB Architecture and upgrade order.

- Notes:**
1. Skip this section for mixed EPAP as eXtreme feature not supported on mixed EPAP.
  2. DB Architecture cannot be reverted to COMPACT once moved to eXtreme architecture.

### 4.1.1 Phases to change DB Architecture to eXtreme (Standalone PDB)

**Table 20: Phases to change DB Architecture to eXtreme (Standalone PDB)**

| Phase  | Elapsed Time (Minutes) |      | Activity  | Procedure                    |
|--|------------------------|------|---|------------------------------|
|  | This Step              | Cum. |   |                              |
| Check database before changing DB architecture to eXtreme. | 40                     | 40   | Check 9dig counts for all DN/IMSI and IMEI before changing DB architecture to eXtreme.  | <a href="#">Procedure 17</a> |
| Change DB Architecture to eXtreme                          | 40                     | 80   | <p><b>Note: Skip this procedure on Mixed EPAP.</b></p> <p>Change DB Architecture from COMPACT to eXtreme.</p> <p>Note: If parsing gets failed at this stage then user needs to run it manually. Check 0 to Run it manually.</p> | <a href="#">Procedure 13</a> |

| Phase   | Elapsed Time (Minutes) |                                | Activity  | Procedure                    |
|---|------------------------|--------------------------------|---|------------------------------|
|   | This Step              | Cum.                           |   |                              |
| Accept the upgrade after successful soak period | 5                      | This is done in a separate MTC | Accept the upgrade after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure 21</a> |

#### 4.1.2 Phases to change DB architecture to eXtreme (First Non-Prov site)

Table 21: Phases to change DB Architecture to eXtreme (First Non-prov site)

| Phase  | Elapsed Time (Minutes) |                   | Activity   | Procedure                      |
|--|------------------------|-------------------|--|--------------------------------|
|  | This Step              | Cum.              |  |                                |
| Check database before changing DB architecture to eXtreme. | *see notes below       | *see notes below  | <b>NOTE: Run this step on attached PDBonly EPAP if not already executed.</b><br><br>Check 9dig counts for all DN/IMSI and IMEI before changing DB architecture to eXtreme. | <a href="#">Procedure 17</a>   |
| Take backup before moving to eXtreme architecture          | **See notes below      | **See notes below | Take RTDB backup if not already taken, before moving to eXtreme architecture.<br><br><b>Note: Skip this step for PDBonly.</b>  | <a href="#">Procedure A.7</a>  |
| Change DB Architecture to eXtreme                          | 5                      | 5                 | Change DB Architecture from COMPACT to eXtreme<br><br><b>Note:</b> EPAPX feature must be "ON" on the connected eagle before procedure 13                                   | <a href="#">Procedure 13</a>   |
| Restore RTDB backup on Non-prov.                           | 240                    | 245               | Restore RTDB backup on Non-prov MPS A.   | <a href="#">Procedure A.36</a> |

| Phase   | Elapsed Time (Minutes) |                                | Activity  | Procedure                      |
|---|------------------------|--------------------------------|---|--------------------------------|
|   | This Step              | Cum.                           |   |                                |
| Reload RTDB from mate                           | 10                     | 255                            | Reload RTDB from mate on Non-prov MPS B.  | <a href="#">Procedure A.11</a> |
| Accept the upgrade after successful soak period | 5                      | This is done in a separate MTC | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade. | <a href="#">Procedure 21</a>   |

**\*NOTE:** The time for checking database will be added for attached PDBonly EPAP(Added in section 4.2.1).

**\*\*NOTE:** The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.

#### 4.1.3 Phases to change DB architecture to eXtreme (Remaining Non-Prov sites)

Table 22: Phases to change DB Architecture to eXtreme (Remaining Non-Prov sites)

| Phase   | Elapsed Time (Minutes) |                  | Activity  | Procedure |
|---|------------------------|------------------|---|-----------|
|   | This Step              | Cum.             |   |           |
| Take backup before moving to eXtreme architecture | *See notes below       | *See notes below | Take RTDB backup if not already taken, before moving to eXtreme architecture.<br><b>Note: Skip this step for PDBonly.</b> | <b>0</b>  |

| Phase   | Elapsed Time (Minutes) |                                | Activity  | Procedure                    |
|---|------------------------|--------------------------------|---|------------------------------|
|   | This Step              | Cum.                           |   |                              |
| Change DB Architecture to eXtreme               | 5                      | 5                              | Change DB Architecture from COMPACT to eXtreme<br><br><b>Note:</b> EPAPX feature must be “ON” on the connected eagle before procedure 13  | <a href="#">Procedure 13</a> |
| Reload RTDB from remote                         | 10                     | 15                             | Reload the RTDB from remote(already in eXtreme mode)<br><br><b>Note: Remote Non-Prov EPAP must be in eXtreme mode.</b> (Which may be the first Non-Prov site converted in table 19 or any other remote EPAP which is already in eXtreme mode) | 0                            |
| Reload RTDB from mate                           | 10                     | 25                             | Reload RTDB from mate on Non-prov MPS B.  | 0                            |
| Accept the upgrade after successful soak period | 5                      | This is done in a separate MTC | Accept the upgrade on both MPS-A and MPS-B after sufficient soak period of around 1-7 days (depending upon customer provisioning volume) to see that everything works fine after the upgrade.   | <a href="#">Procedure 21</a> |

**\*NOTE:** The time needed to backup application data is dependent on the amount of application data. This procedure cannot specify an exact length of time since different customers have different amounts of application data.

## 5 UPGRADE PREPARATION

### Setting up the upgrade environment

#### Procedure 1: Setting up the upgrade environment

|                                  |   |  |
|----------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure sets up the upgrade environment. Windows are opened for both MPS servers.</p> <p><b>NOTE: Call My Oracle Support for assistance if modem access is the method use for upgrade.</b></p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND <b>ASK FOR <u>UPGRADE ASSISTANCE</u></b>.</p> |  |
| 1.                               | <p>Upgrade can be done in two ways:</p> <p>A. Remotely</p> <p>B. Locally</p>  | <p>Refer to Step 2 to 6 for running remotely.</p> <p>Refer to Step 7 to 19 for running locally.</p>  |
| 2.<br><input type="checkbox"/>   | <p><b>Ensure MPS X:</b></p> <p>All the console/PuTTY Sessions.</p>  | <p>On all the console/PuTTY sessions, make sure that the logging in enabled and logs are written to a file. For example, on a PuTTY session, do the following.</p> <ol style="list-style-type: none"> <li>1. Right click on the top bar in the PuTTY and choose “change setting”.</li> <li>2. Click on “Logging”.</li> <li>3. Select “Printable output”.</li> <li>4. Click on “Browse” and choose where you want the logs to be written so that you can collect those later, if needed. Put a name which will serve better on a later date to understand, for example, name of the log file can be <b>&lt;server name&gt;_active_pdba_A_server_puttylog_ddmmyyyy</b>.</li> <li>5. Click on “Save”.</li> <li>6. Type a text “Putty Logging starts” in the PuTTY session and check that above text is logged in the PuTTY log file.</li> </ol> <p>Repeat the above six steps on every console/PuTTY session that will be used to enter commands or Run procedure of this document.</p> |

## Procedure 1: Setting up the upgrade environment

|    |  |  |
|----|--|--|
|    |  |  |
| 3. | <p>Access to the MPS servers is available through an IP network.</p> <p>Step 3 and 4 provide console access to MPS-B from a remote location.</p> <p><b>MPS A:</b> Log in to the server as user "admusr".</p> | <p>If not already logged-in, then log in.</p> <pre>&lt;hostname&gt; console login: admusr Password: &lt;password&gt;</pre>   |
| 4. | <p><b>MPS A:</b> Start screen session</p> <p><b>MPS A:</b> Connect to the console of MPS B.</p>  | <p>Run the following commands to start screen and establish a console session to MPS B.</p> <pre>\$ screen -L</pre> <p>Run the following command on E5-APP-B:</p> <pre>\$ sudo minicom mate</pre> <p><b>Note:</b> Now user is connected to the console of MPS-B from a remote location.</p>  |
| 5. | <p>Step 5 and 6 provide console access to MPS-A from a remote location.</p> <p><b>MPS B:</b> Log in to the server as user "admusr".</p>  | <p>If not already logged-in, then log in.</p> <pre>&lt;hostname&gt; console login: admusr Password: &lt;password&gt;</pre>   |
| 6. | <p><b>MPS B:</b> Start screen session</p> <p><b>MPS B:</b> Connect to the console of MPS A.</p> <p>Note down the timestamp in log.</p>   | <p>Run the following commands to start screen and establish a console session to MPS A.</p> <pre>\$ screen -L</pre> <p>Run the following command on E5-APP-B:</p> <pre>\$ sudo minicom mate</pre> <p>Run the following command:</p> <pre>\$ date</pre> <p><b>Note:</b> Now user is connected to the console of MPS-A from a remote location.</p> |

## Procedure 1: Setting up the upgrade environment

|     |  |  |
|-----|--|--|
|     |  | <p><b>Note:</b> If upgrade is to be performed from a remote location skip rest of the procedure.</p> <p>If upgrade is to be performed locally then follow step 7 to 19.</p>  |
| 7.  | <p><b>Ensure MPS X:</b><br/>All the console/PuTTY Sessions.</p>  | <p>On all the console/PuTTY sessions, make sure that the logging is enabled and logs are written to a file. For example, on a PuTTY session, do the following.</p> <ol style="list-style-type: none"> <li>1. Right click on the top bar in the PuTTY and choose “change setting”.</li> <li>2. Click on “Logging”.</li> <li>3. Select “Printable output”.</li> <li>4. Click on “Browse” and choose where you want the logs to be written so that you can collect those later, if needed. Put a name which will serve better on a later date to understand, for example, name of the log file can be <b>&lt;server name&gt;_active_pdba_A_server_puttylog_ddmmyyyy</b>.</li> <li>5. Click on “Save”.</li> <li>6. Type a text “Putty Logging starts” in the PuTTY session and check that above text is logged in the PuTTY log file.</li> </ol> <p>Repeat the above six steps on every console/PuTTY session that will be used to enter commands or Run procedure of this document.</p> |
| 8.  | <p>Establish a connection to MPS A.</p>  | <p>Access to the MPS servers is not available through an IP network, Connect to the E5-APP-B card via the serial port</p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B B card’s adapter and use it for serial access by connecting the serial cable to the customer laptop’s serial port. Cable part numbers - 830-1220-xx</p>   |
| 9.  | <p><input type="checkbox"/> Create a terminal window for MPS A.<br/><b>Note:</b> Steps 9 to 12 make the serial connection to MPS-A</p> | <p>Create a terminal window e.g. open a putty session on the workstation and give it a title of <b>“MPS A”</b></p>   |
| 10. | <p><input type="checkbox"/> <b>MPS A:</b> Enable capture file and verify the correspondent file is created.</p>                        | <p>Enable the data capture and verify that the data capture file is created at the path specified.</p>   |
| 11. | <p><input type="checkbox"/> Log into MPS A.</p>  | <p><b>&lt;hostname&gt; console login: admusr<br/>password: &lt;password&gt;</b></p>  |

### Procedure 1: Setting up the upgrade environment

|                                 |   |   |
|---------------------------------|---|---|
| 12.<br><input type="checkbox"/> | <b>MPS A:</b> Start screen Session.   | Run the following command to start screen and establish a console session with MPS A.<br><b>\$ screen -L</b><br><br>If for Standalone PDB, the procedure is complete. Otherwise, continue with the next step.   |
| 13.<br><input type="checkbox"/> | Establish a connection to MPS B.<br><br><b>Note:</b> Steps 13 to 17 make the serial connection to MPS-B | Access to the MPS servers is not available through an IP network, connect to the E5-APP-B card via the serial port.<br><br>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B A card's adapter and use it for serial access by connecting the serial cable to the customer laptop's serial port. <b>Cable part numbers - 830-1220-xx</b> |
| 14.<br><input type="checkbox"/> | Create a terminal window for MPS B.   | Create a terminal window e.g. open a putty session on the workstation and give it a title of " <b>MPS B</b> "   |
| 15.<br><input type="checkbox"/> | <b>MPS B:</b> Enable capture file and verify a correspondent file is created.                           | Enable the data capture and verify that the data capture file is created at the path specified.   |
| 16.<br><input type="checkbox"/> | Log into MPS B.   | <b>&lt;hostname&gt; console login: admusr<br/>password: &lt;password&gt;</b>  |
| 17.<br><input type="checkbox"/> | <b>MPS B:</b> Start screen Session.   | Run the following command to start screen and establish a console session with MPS B.<br><b>\$ screen -L</b>  |
| 18.<br><input type="checkbox"/> | <b>MPS A and B:</b> Procedure Complete.   | This procedure is complete.   |
| 19.<br><input type="checkbox"/> | Note down the timestamp in log.   | Run the following command:<br><b>\$ date</b>  |

### Determine if upgrade or installation is required

#### Procedure 2: Determine if upgrade or installation is required

|                                  |   |  |
|----------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure Runs the steps required to determine if an upgrade of the system is required or an initial application installation is required.<br>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.<br><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR UPGRADE ASSISTANCE.</b> |  |
|                                  | 1.  | <b>MPS A:</b> Log in to MPS A. If not already logged-in, login at MPS A as 'admusr'. |

**Procedure 2: Determine if upgrade or installation is required**

|                          |   |   |
|--------------------------|---|---|
| <input type="checkbox"/> |   | <pre>&lt;hostname&gt; console login: admusr password: &lt;password&gt;</pre>  |
| <input type="checkbox"/> | <p>2. <b>MPS B:</b> Log in to MPS B.</p>  | <p>If not already logged-in, login at MPS B as 'admusr'.</p> <pre>&lt;hostname&gt; console login: admusr password: &lt;password&gt;</pre>   |
| <input type="checkbox"/> | <p>3. <b>MPS B:</b> Determine if the application is currently installed on the servers.</p> <p>(MPS B will be used to determine the current state of the servers. We will assume that the state of the A server is the same).</p> | <p>Run an rpm query command and examine the output:</p> <pre>\$ rpm -qi TKLCepap</pre> <pre>Name      : TKLCepap Version   : 180.0.2 Release   : 18.0.0.0.0_180.2.0 Architecture: x86_64 Install Date: Mon 30 Mar 2026 07:59:03 AM EDT Group     : Development/Build Size      : 192759935 License   : TEKELEC 2005-2024 Signature : (none) Source RPM : TKLCepap-180.0.2-18.0.0.0.0_180.2.0.src.rpm Build Date : Wed 25 Mar 2026 08:32:59 AM EDT Build Host : epap-appd-dev-tpd-150-22-0 Relocations : (not relocatable) Packager  : &lt;@tekelec.com&gt; Vendor    : Tekelec URL       : http://www.tekelec.com/ Summary   : Oracle Communications EPAP Package Description :</pre> <p>This is the Oracle Communications EAGLE Application Processor(EPAP) Package. The Package installs EPAP software. EPAP provides Provisioning Database Application (PDBA) and Real Time Database (RTDB).<br/> In case of PDBOnly, there will be no RTDB, only PDB will reside on A side.<br/> In case of Mixed server, both PDB and RTDB will reside on A side and only RTDB will reside on B side.<br/> In case of Non-Prov server, only RTDB will reside on both A and B side.</p> |

## Procedure 2: Determine if upgrade or installation is required

|                                    |  |  |
|------------------------------------|--|--|
| <p>4. <input type="checkbox"/></p> | <p><b>MPS B:</b> Observe the output from the rpm query.</p>  | <p>The following is an example of what the output may look like:</p> <pre>\$ appRev  Install Time: Mon Mar 30 08:14:39 2026 Product Name: EPAP Product Release: 18.0.0.0_180.2.0 Base Distro Product: TPD Base Distro Release: 8.10.1.11.0_150.25.0 Base Distro ISO: TPD.install-8.10.1.11.0_150.25.0-OracleLinux8.10-x86_64.iso ISO name: EPAP-18.0.0.0_180.2.0-x86_64.iso OS: OracleLinux 8.10</pre> <p>If the output similar-to the above example is displayed, then skip to step 6. Otherwise, proceed to the next step.</p> |
| <p>5. <input type="checkbox"/></p> | <p><b>MPS B:</b> Installation is required if the application is not present on the server, else upgrade is required.</p> | <p>If the application is not currently installed, output similar-to the example below will be returned from the <b>rpm -qi</b> command in step-3. If this is the case, then an application <b>installation</b> is required. Refer to <a href="#">section 3.1.1</a> to perform EPAP installation.</p> <pre>\$ rpm -qi TKLCepap package TKLCepap is not installed</pre> <p>Skip to step 10.</p>  |
| <p>6. <input type="checkbox"/></p> | <p><b>MPS B:</b> Determine which version of the application is present.</p>  | <p>Write Down the Release Number:</p> <p>Release Number: _____</p> <p>If the release number on the MPS is less than the release number on the upgrade media, then an upgrade is required.</p>  |
| <p>7. <input type="checkbox"/></p> | <p>Determine if Full Upgrade is required.</p>  | <p>If the current release is 16.3.1/16.4.1/17.0.0.5 or lower and target release is 18.0.0.x, it is a <b>FULL UPGRADE</b>.</p>  |
| <p>8. <input type="checkbox"/></p> | <p>Determine if an Dual Image Upgrade is required.</p>   | <p>If the current release is 18.0.0.x/17.1.x/17.0.0.6.0 or higher, and the target release is 18.0.0.y.y, it is a <b>Dual Image Upgrade</b>.</p>  |
| <p>9. <input type="checkbox"/></p> | <p><b>MPS A:</b> Determine if it is Provisionable (either mixed-EPAP or PDBonly) or Non-Provisionable EPAP setup.</p>    | <p>Run the following command to determine if the EPAP is Provisionable(either mixed-EPAP or PDBonly) or Non-Provisionable.</p> <pre>\$ uiEdit   grep "PROVISIONABLE"</pre>   |

## Procedure 2: Determine if upgrade or installation is required

|                                 |  |   |
|---------------------------------|--|---|
|                                 |  | <p>"PROVISIONABLE_MPS" is set to "YES"</p> <p>If the above output contains "YES", then the EPAP is Provisionable (either mixed-EPAP or PDBonly). Otherwise, the EPAP is Non-Provisionable. Write down this information.</p> <p>EPAP setup type: _____</p>   |
| 10.<br><input type="checkbox"/> | <p><b>MPS B:</b> Determine if the current DB Architecture is compact or extreme.</p> <p>(MPS B will be used to determine the current state of the servers. We will assume that the state of the A server is the same).</p> | <p>Run the following command to determine if the EPAP DB Architecture is Extreme or Compact.</p> <pre>\$ uiEdit   grep "DB_ARCHITECTURE"</pre> <p>"DB_ARCHITECTURE" is set to "COMPACT"</p> <p>If the above output contains "COMPACT" or no output is displayed, then the EPAP DB Architecture is Compact.</p> <p>If the above output contains "EXTREME", then the EPAP DB Architecture is Compact. Write down this information.</p> <p>EPAP DB Architecture type: _____</p> <p>Based on this information DB converter will be run.</p> |
| 11.<br><input type="checkbox"/> | <p><b>MPS A and B:</b><br/>Procedure Complete.</p>   | <p>This procedure is complete.</p>  |
| 12.<br><input type="checkbox"/> | <p>Note down the timestamp in log.</p>   | <p>Run the following command:</p> <pre>\$ date</pre>  |

## Pre-upgrade requirements

### Procedure 3: Verifying Pre-Upgrade Requirements and Capturing Upgrade Data

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure verifies that all pre-upgrade requirements have been met.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</b></p> |   |
| 1.<br><input type="checkbox"/>   | <p>Verify all required materials are present.</p>  | <p>Verify that the materials listed in Upgrade Material List (<a href="#">Section 3.2</a>) are present.</p> |
| 2.<br><input type="checkbox"/>   | <p>Verify the availability of passwords for MPS systems.</p>   | <p>Refer to <a href="#">Table 6</a> for the list of users.</p>  |

| 3.<br><input type="checkbox"/> | Review provisioning rules.  | Please review the Provisioning information as defined in <a href="#">Section 3.1</a> . If you do not understand the information provided in this section, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section   |           |            |               |                     |       |         |             |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |
|--------------------------------|---|--|-----------|------------|---------------|---------------------|-------|---------|-------------|-----------------------|----|----|----------|-----|---------------|---------------------|-----------------------|----|----|----------|-----|---------------|---------------------|-----------------------|----|----|----------|-----|---------------|---------------------|
| 4.<br><input type="checkbox"/> | Verify and close active GUI Sessions.<br><br>On the menu, click User Administration->HTTP(s) Support->Terminate UI Sessions | <p><b>Skip this step for fresh install.</b></p> <p>Login to EPAP GUI as uiaadmin user. Terminate all the active GUI sessions from EPAP GUI.</p> <p>A <span style="float: right;">Terminate Active UI Sessions</span></p> <table border="1"> <thead> <tr> <th>Delete?</th> <th>Session Id</th> <th>User Id</th> <th>User Name</th> <th>Admin</th> <th>IP Addr</th> <th>Last Access</th> </tr> </thead> <tbody> <tr> <td><input type="radio"/></td> <td>44</td> <td>99</td> <td>uiaadmin</td> <td>YES</td> <td>10.250.32.216</td> <td>2017-06-20 07:04:11</td> </tr> <tr> <td><input type="radio"/></td> <td>45</td> <td>99</td> <td>uiaadmin</td> <td>YES</td> <td>10.250.32.216</td> <td>2017-06-20 07:04:20</td> </tr> <tr> <td><input type="radio"/></td> <td>46</td> <td>99</td> <td>uiaadmin</td> <td>YES</td> <td>10.250.32.216</td> <td>2017-06-20 07:04:33</td> </tr> </tbody> </table> <p><input type="button" value="Delete Selected Active Session"/></p> <p>Select all sessions and click on “Delete Selected Active Session” to delete all active sessions.</p> | Delete?   | Session Id | User Id       | User Name           | Admin | IP Addr | Last Access | <input type="radio"/> | 44 | 99 | uiaadmin | YES | 10.250.32.216 | 2017-06-20 07:04:11 | <input type="radio"/> | 45 | 99 | uiaadmin | YES | 10.250.32.216 | 2017-06-20 07:04:20 | <input type="radio"/> | 46 | 99 | uiaadmin | YES | 10.250.32.216 | 2017-06-20 07:04:33 |
| Delete?                        | Session Id  | User Id  | User Name | Admin      | IP Addr       | Last Access         |       |         |             |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |
| <input type="radio"/>          | 44  | 99   | uiaadmin  | YES        | 10.250.32.216 | 2017-06-20 07:04:11 |       |         |             |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |
| <input type="radio"/>          | 45  | 99   | uiaadmin  | YES        | 10.250.32.216 | 2017-06-20 07:04:20 |       |         |             |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |
| <input type="radio"/>          | 46  | 99   | uiaadmin  | YES        | 10.250.32.216 | 2017-06-20 07:04:33 |       |         |             |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |
| 5.<br><input type="checkbox"/> | Procedure Complete.   | This procedure is complete.  |           |            |               |                     |       |         |             |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |
| 6.<br><input type="checkbox"/> | Note down the timestamp in log.   | Run the following command:<br><br><b>\$ date</b>   |           |            |               |                     |       |         |             |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |                       |    |    |          |     |               |                     |

## System Health check

### Procedure 4: System Health Check

|                                |   |  |
|--------------------------------|---|--|
| STEP #                         | <p>This procedure determines the health of the MPS System before beginning an upgrade.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR UPGRADE ASSISTANCE.</p> |  |
| 1.<br><input type="checkbox"/> | <b>MPS A:</b> Verify health of MPS A.   | Run 0 on MPS A to verify the health of MPS A.  |
| 2.<br><input type="checkbox"/> | <b>MPS B:</b> Verify health of MPS B.   | Run 0 on MPS B to verify the health of MPS B.  |
| 3.<br><input type="checkbox"/> | Check disk size for Active and Standby PDBA.  | <p>Active and Standby PDBA should have the same disk size i.e. 300G or 480G. If the disk sizes are not the same, please contact Oracle Support before proceeding further.</p> <p>Run the following command:</p> <pre># fdisk -l   grep disk -i Disk /dev/sda: 447.1 GiB, 480103981056 bytes, 937703088 sectors Disklabel type: gpt</pre> |

#### Procedure 4: System Health Check

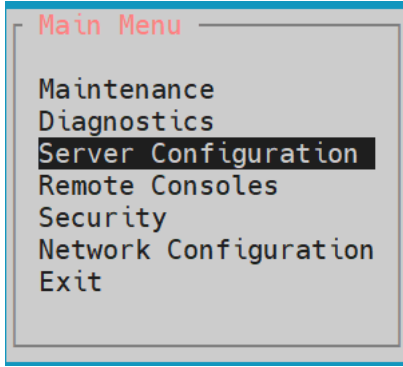
|                                |                                 |   |
|--------------------------------|---------------------------------|---|
|                                |                                 | Disk identifier: 7BCD8D33-BF69-421C-BB2B-D0BDA8CB97C8<br>Disk /dev/sdb: 447.1 GiB, 480103981056 bytes, 937703088 sectors<br>Disklabel type: gpt |
| 4.<br><input type="checkbox"/> | Procedure Complete.             | This procedure is complete.   |
| 5.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><b>\$ date</b>  |

## 6. SOFTWARE INSTALLATION PROCEDURES

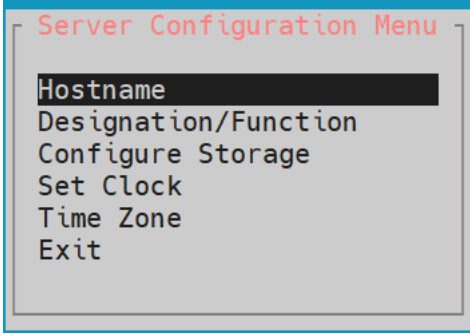
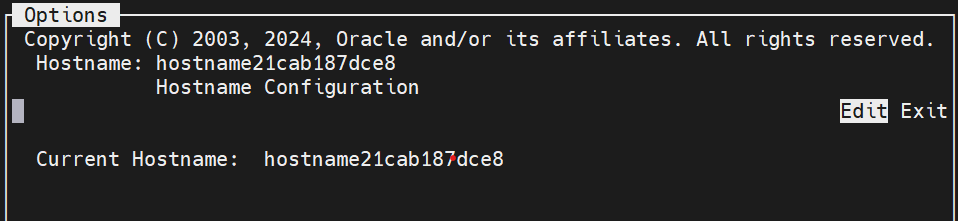
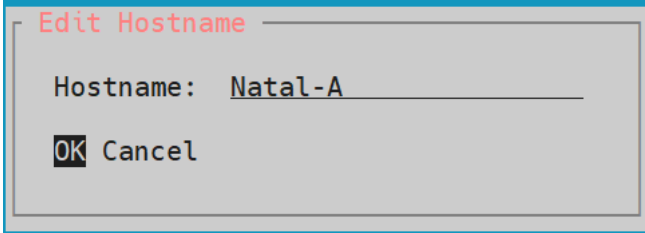
Pre install configuration and initial installation of EPAP can be done on any of the server in the mated pair in any order. These operations can be done simultaneously on both the servers.

### Pre-Install configuration on server A


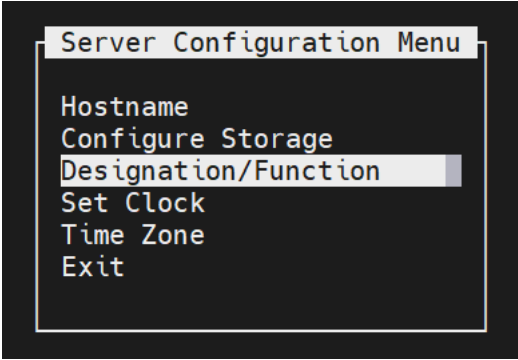
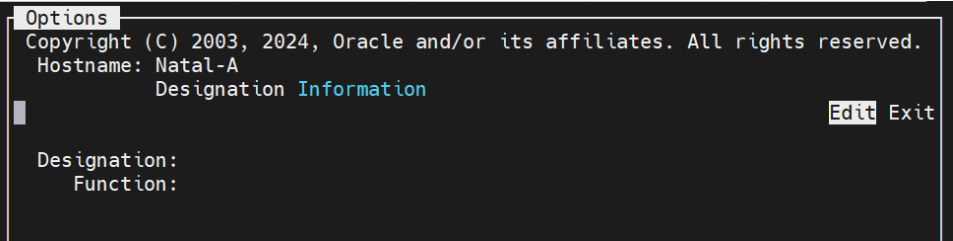
#### Procedure 5: Pre-Install Configuration on Server A

|  |  |  |
|--|--|--|
| S<br>T<br>E<br>P<br>#  | <p>This procedure provides instructions to perform pre-configuration for an initial install of the application.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p> |  |
| <p><b>IMPORTANT: Installation of the Operating System on an Oracle Application Server should be completed before starting installation procedure. Refer to <a href="#">Procedure A.13</a> or [4] for TPD installation guide.</b></p> |  |  |
| 1.<br><input type="checkbox"/>   | Connect to the Server.   | <p>If not already connected, connect to the E5-APP-B card via the serial port.</p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B B card's adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p> |
| 2.<br><input type="checkbox"/>   | Log in as "admusr" user.   | <p>If not already logged in, then login as "admusr":</p> <pre>[hostname] consolelogin: admusr password: password</pre>   |
| 3.<br><input type="checkbox"/>   | Start platcfg utility.   | <pre>\$ sudo su - platcfg</pre>  |
| 4.<br><input type="checkbox"/>   | Navigate to the <b>Server Configuration</b> screen.  | <p>Select <b>Server Configuration</b> and press [ENTER]</p>  <p>The screenshot shows a terminal window titled 'Main Menu' with the following options: Maintenance, Diagnostics, Server Configuration (highlighted with a black bar), Remote Consoles, Security, Network Configuration, and Exit.</p>                                 |

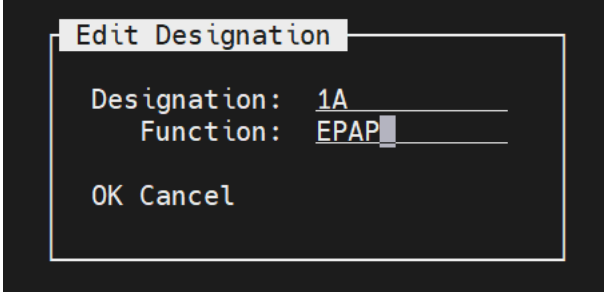
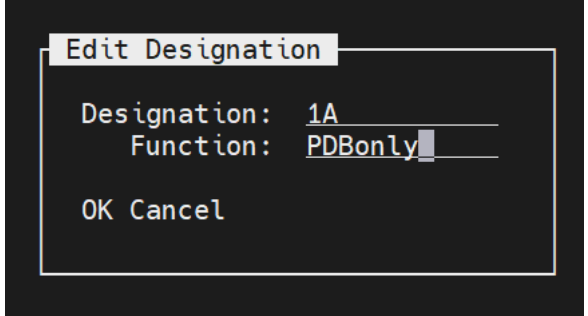
**Procedure 5: Pre-Install Configuration on Server A**

|                                    |  |   |
|------------------------------------|--|---|
| <p>5. <input type="checkbox"/></p> | <p>Navigate to the <b>Hostname</b> screen.</p>     | <p>Select <b>Hostname</b> and press [ENTER]</p>   |
| <p>6. <input type="checkbox"/></p> | <p>Select <b>Edit</b> to edit the hostname.</p>    | <p>Select <b>Edit</b> and press [ENTER]</p>   |
| <p>7. <input type="checkbox"/></p> | <p>Enter the hostname and press ok.</p>            | <p>Delete the default entry and enter the Hostname as mps-xxxx-a where xxxx is the last 4 digits of server serial number. Press OK when done.</p>  <p>While connected to the serial console, some console output might come when the user is using the serial console to configure the EPAP. Those serial output are harmless and can be ignored.</p> |
| <p>8. <input type="checkbox"/></p> | <p>Exit Back to the Server Configuration Menu.</p> | <p>Press any key to exit back to the Server Configuration Menu. Verify that the hostname has been properly set.</p>   |

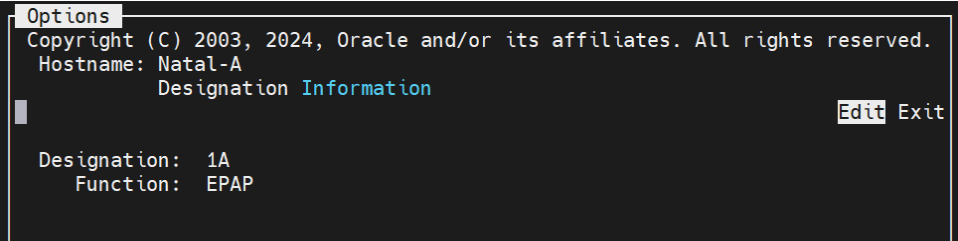
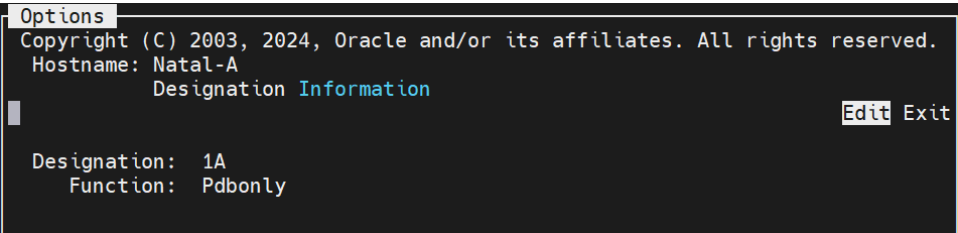
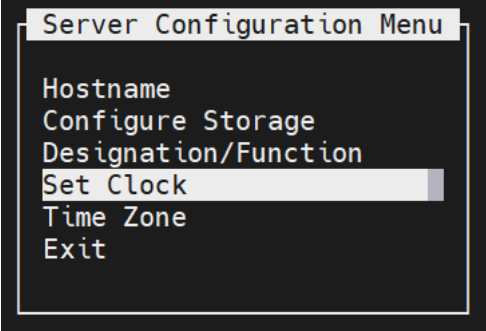
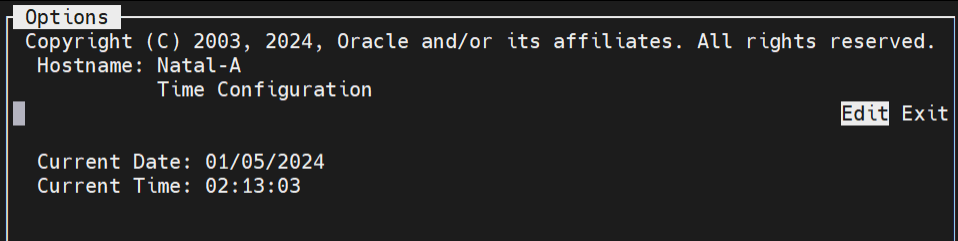
**Procedure 5: Pre-Install Configuration on Server A**

|                                     |   |  |
|-------------------------------------|---|--|
|                                     |   |    |
| <p>9. <input type="checkbox"/></p>  | <p>Navigate to the <b>Designation/Function</b> menu option.</p> | <p>Select <b>Designation/Function</b> and press [ENTER]</p>   |
| <p>10. <input type="checkbox"/></p> | <p>View the current designation and function.</p>               | <p>The screen will show the current designation and function setting. On initial install, these fields are blank.</p>  |

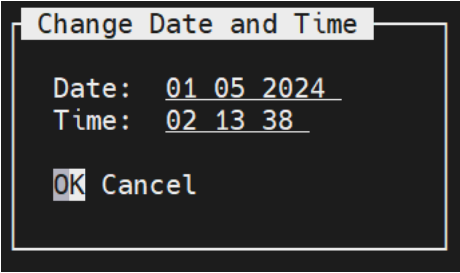
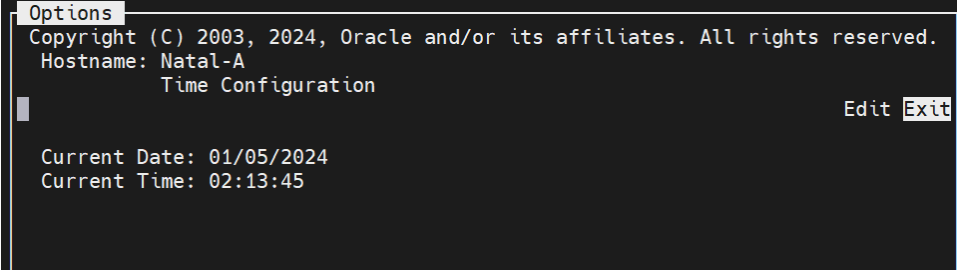
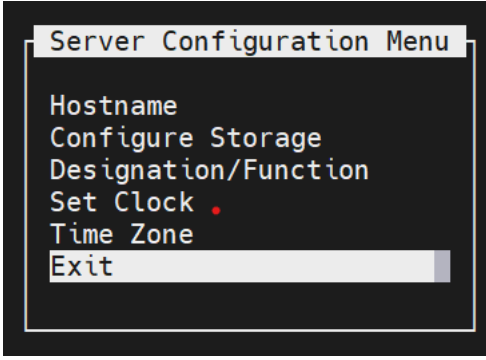
**Procedure 5: Pre-Install Configuration on Server A**

|                                     |   |   |
|-------------------------------------|---|---|
|                                     |   | <p>If not blank, the values should be as follows for Mixed EPAP and Non-Provisional EPAP:</p> <ol style="list-style-type: none"> <li>1. The Designation is "1A" for the A server</li> <li>2. The Function field should be set to EPAP.</li> </ol> <p>If not blank, the values should be as follows for Standalone PDB.</p> <ol style="list-style-type: none"> <li>1. The Designation is "1A" for the A server</li> <li>2. The Function field should be set to PDBonly.</li> </ol> <p>If both the fields are blank or either value is not correct, then select <b>Edit</b> and press [ENTER].</p> <p>If both values are correct, select <b>Exit</b>, press [ENTER] and skip the next step.</p> |
| <p>11. <input type="checkbox"/></p> | <p>View the current designation and function.</p> | <p>Skip to Step 13 if Exit was selected in the previous step, otherwise if Edit was selected, delete the current designation and function if already set, and type in the desired values. Enter the appropriate designation in the Designation field (Note: the designation must be capitalized).</p> <p>Select OK and press [ENTER].</p> <p>For Mixed EPAP or Non-Provisional EPAP, the following is a correct example:</p>  <p>For Standalone PDB, the following is a correct example:</p>                          |
| <p>12. <input type="checkbox"/></p> | <p>Verify that the Designation and</p>            | <p>For Mixed EPAP or Non-Provisional EPAP, the following is a correct example:</p>  |

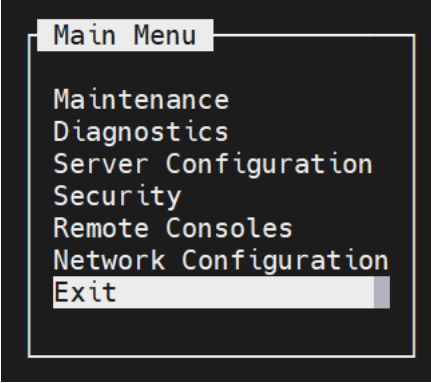
**Procedure 5: Pre-Install Configuration on Server A**

|                                     |  |  |
|-------------------------------------|--|--|
|                                     | <p>Function information is correct then select and press "Exit".</p>   |  <p>For Standalone PDB, the following is a correct example:</p>  |
| <p>13. <input type="checkbox"/></p> | <p>Select "Set Clock" Menu.</p>  |   |
| <p>14. <input type="checkbox"/></p> | <p>1) Select "Edit" from the options dialogue box.</p> <p>2) Using an NTP source, set the Date/Time to be correct for the Eastern Time zone (GMT -5) and press "OK".</p> <p>NOTE: All systems default to Eastern time post IPM. It is important to set the</p> |    |

**Procedure 5: Pre-Install Configuration on Server A**

|                                     |   |  |
|-------------------------------------|---|--|
|                                     | <p>time for the Eastern Time zone at this time.</p>                           |    |
| <p>15. <input type="checkbox"/></p> | <p>Verify that the Date and Time is correct then select and press "Exit".</p> |   |
| <p>16. <input type="checkbox"/></p> | <p>Exit from platcfg menu.</p>  | <p>Select <b>EXIT</b> until the platcfg menu is closed and the command line is displayed.</p>  |

### Procedure 5: Pre-Install Configuration on Server A

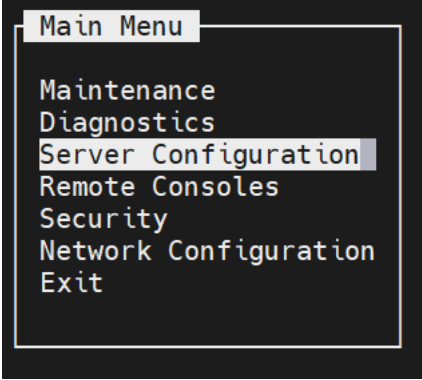
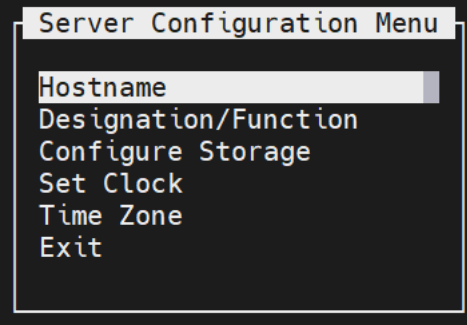

|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
|                                 |                                 |  |
| 17.<br><input type="checkbox"/> | Reboot the Server.              | <b>\$ sudo reboot</b>  |
| 18.<br><input type="checkbox"/> | Procedure complete.             | Procedure is complete.   |
| 19.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><b>\$ date</b>                                       |

### Pre-Install configuration on server B

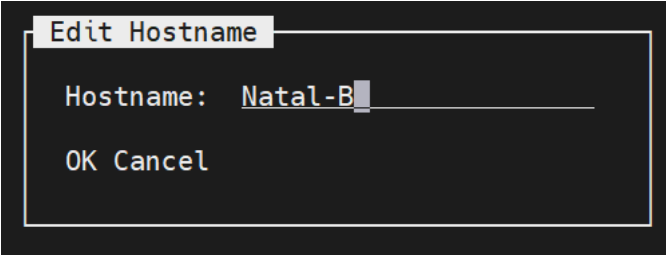
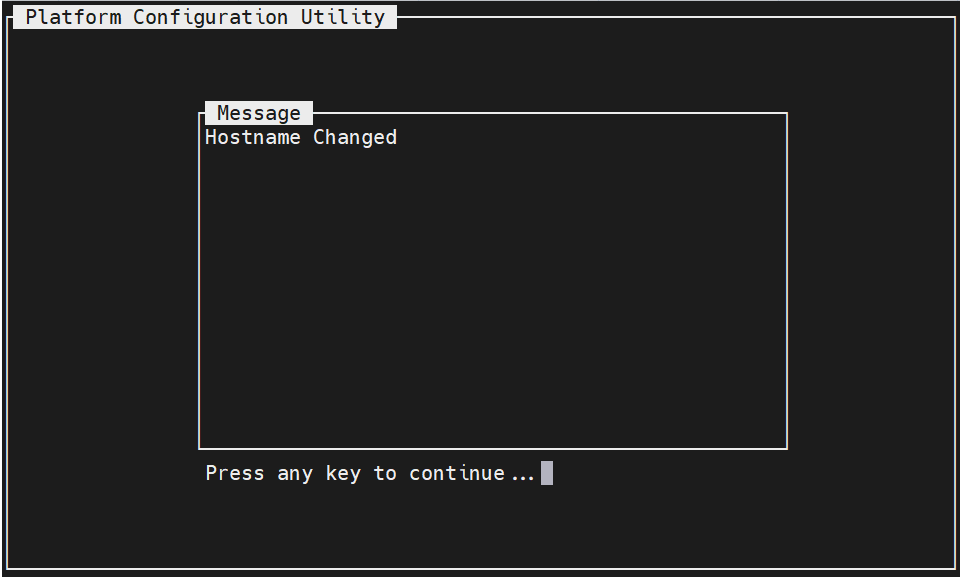
#### Procedure 6: Pre-Install Configuration on Server B

|   |   |   |
|---|---|---|
| S<br>T<br>E<br>P<br>#   | This procedure provides instructions to perform pre configuration for an initial install of the application.  |   |
|   | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |   |
| IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.  |   |   |
| <b>IMPORTANT: Installation of the Operating System on an Oracle Application Server should be completed before starting installation procedure. Refer to <a href="#">Procedure A.13</a> or [4] for TPD installation.</b> |   |   |
| 1.<br><input type="checkbox"/>  | Connect to the Server.  | If not already connected, connect to the E5-APP-B card via the serial port.<br><br>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B A cards' adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b> |
| 2.<br><input type="checkbox"/>  | Log in as "admusr" user.  | If not already logged in, then login as 'admusr':<br><b>[hostname] consolelogin: admusr</b><br><b>password: <i>password</i></b>   |

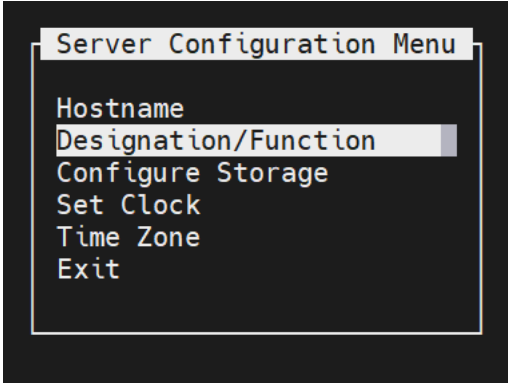
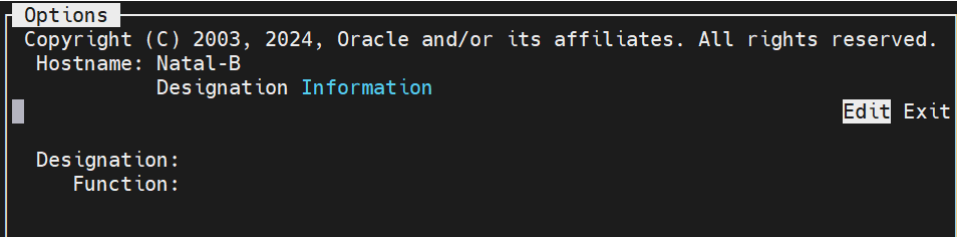
### Procedure 6: Pre-Install Configuration on Server B

|                                |   |  |
|--------------------------------|---|--|
| 3.<br><input type="checkbox"/> | Start platcfg utility.                              | <code>\$ sudo su - platcfg</code>  |
| 4.<br><input type="checkbox"/> | Navigate to the <b>Server Configuration</b> screen. | Select <b>Server Configuration</b> and press [ENTER]     |
| 5.<br><input type="checkbox"/> | Navigate to the <b>Hostname</b> screen.             | Select <b>Hostname</b> and press [ENTER]                |
| 6.<br><input type="checkbox"/> | Select <b>Edit</b> to edit the hostname.            | Select <b>Edit</b> and press [ENTER]                   |
| 7.<br><input type="checkbox"/> | Enter the hostname and press ok.                    | Delete the default entry and enter the Hostname as mps-xxxx-b where xxxx is the last 4 digits of server serial number. Press OK when done. |

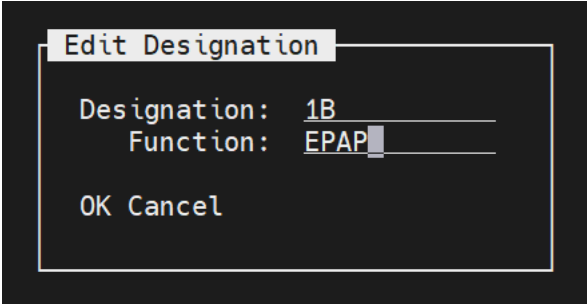
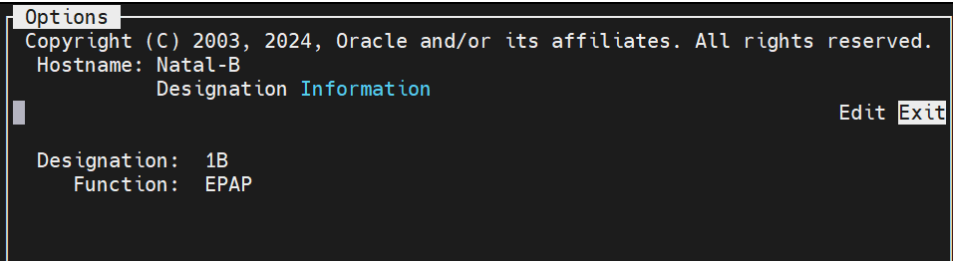
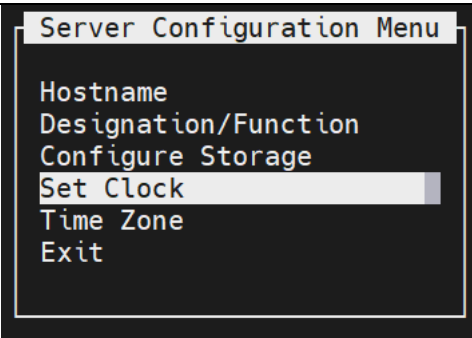
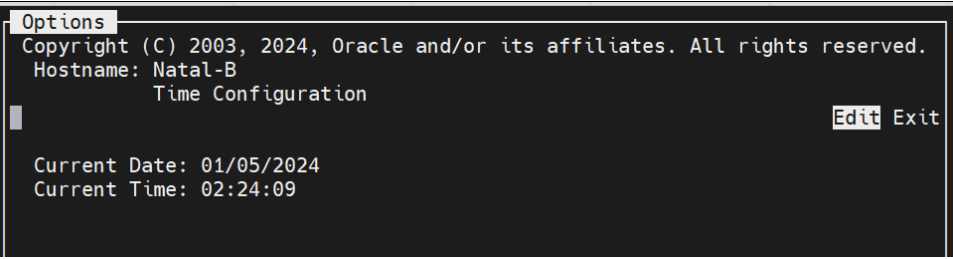
**Procedure 6: Pre-Install Configuration on Server B**

|                                    |   |   |
|------------------------------------|---|---|
|                                    |   |  <p>While connected to the serial console, some console output might come when the user is using the serial console to configure the EPAP. Those serial output are harmless and can be ignored.</p> |
| <p>8. <input type="checkbox"/></p> | <p>Exit Back to the Server Configuration Menu.</p>              | <p>Press any key to exit back to the Server Configuration Menu. Verify that the hostname has been properly set.</p>    |
| <p>9. <input type="checkbox"/></p> | <p>Navigate to the <b>Designation/Function</b> menu option.</p> | <p>Select <b>Designation/Function</b> and press [ENTER]</p>   |

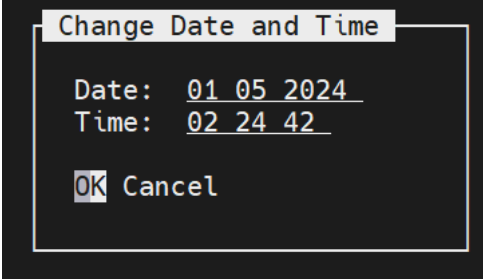
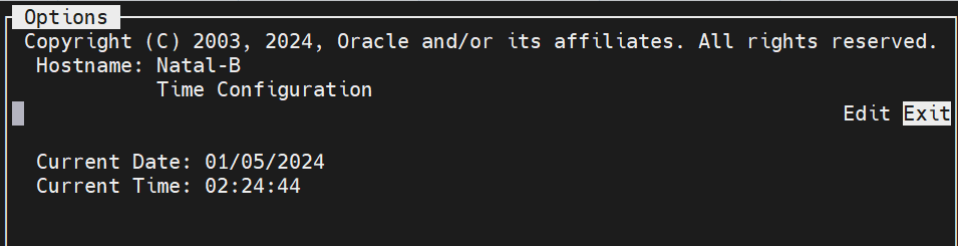
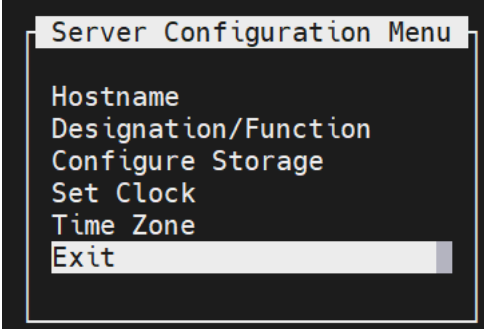
**Procedure 6: Pre-Install Configuration on Server B**

|                                     |   |   |
|-------------------------------------|---|---|
|                                     |   |   |
| <p>10. <input type="checkbox"/></p> | <p>View the current designation and function.</p> | <p>The screen will show the current designation and function setting. On initial install, these fields are blank.</p>  <p>If not blank the values should be as follows for Mixed EPAP and Non-Provisional EPAP:</p> <ol style="list-style-type: none"> <li>1. The Designation is "1B" for the B server</li> <li>2. The Function field should be set to EPAP.</li> </ol> <p>If either value is not correct, then select <b>Edit</b> and press [ENTER].<br/>         If both values are correct, select <b>Exit</b>, press [ENTER] and skip the next step.</p> |
| <p>11. <input type="checkbox"/></p> | <p>View the current designation and function.</p> | <p>Skip to Step 13 if Exit was selected in the previous step, otherwise if Edit was selected, delete the current designation and function if already set, and type in the desired values. Enter the appropriate designation in the Designation field (Note: The designation must be capitalized).<br/>         Select <b>OK</b> and press [ENTER].</p>  |

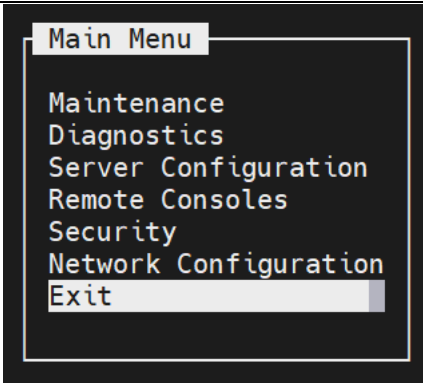
**Procedure 6: Pre-Install Configuration on Server B**

|                                     |  |  |
|-------------------------------------|--|--|
|                                     |  |    |
| <p>12. <input type="checkbox"/></p> | <p>Verify that the Designation and Function information is correct then select and press "Exit".</p>   |    |
| <p>13. <input type="checkbox"/></p> | <p>Select "Set Clock" Menu.</p>  |   |
| <p>14. <input type="checkbox"/></p> | <p>1) Select "Edit" from the options dialogue box.</p> <p>2) Using an NTP source, set the Date/Time to be correct for the Eastern Time zone (GMT -5) and press "OK".</p> <p>NOTE: All systems default to Eastern time post IPM. It is important to set the</p> |  |

**Procedure 6: Pre-Install Configuration on Server B**

|                                     |   |  |
|-------------------------------------|---|--|
|                                     | <p>time for the Eastern Time zone at this time.</p>                           |    |
| <p>15. <input type="checkbox"/></p> | <p>Verify that the Date and Time is correct then select and press "Exit".</p> |    |
| <p>16. <input type="checkbox"/></p> | <p>Exit from platcfg menu.</p>  | <p>Select <b>EXIT</b> until the platcfg menu is closed and the command line is displayed.</p>  |

## Procedure 6: Pre-Install Configuration on Server B

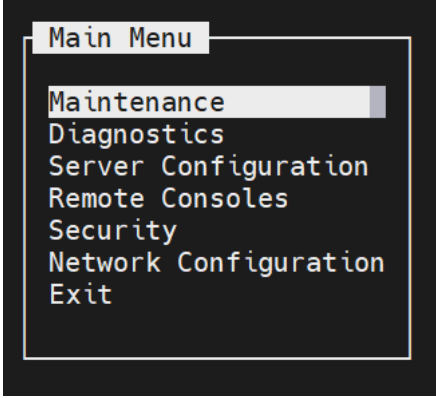
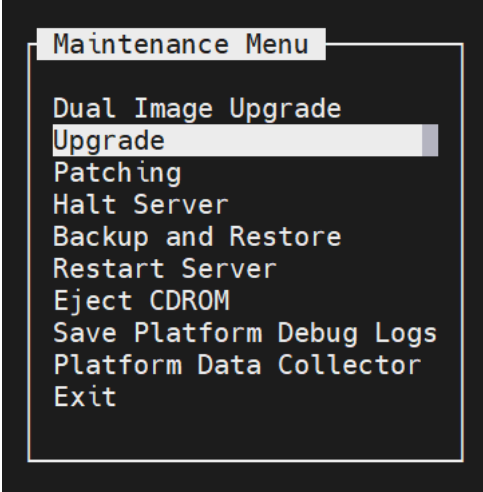
|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
|                                 |                                 |  |
| 17.<br><input type="checkbox"/> | Reboot the Server.              | <b>\$ sudo reboot</b>  |
| 18.<br><input type="checkbox"/> | Procedure complete.             | Procedure is complete.   |
| 19.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><br><b>\$ date</b>                                   |

## Install Application on server B

### Procedure 7: Install the Application on Server B

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure installs the application on the server.  |   |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.                     |   |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.  |   |
|                                  | 1.<br><input type="checkbox"/>  | <b>MPS B:</b> Install 1B. Perform Procedure A.12 or copy EPAP 16.3 ISO to /var/TKLC/upgrade directory.  |
|                                  | 2.<br><input type="checkbox"/>  | Create a terminal window log into MPS B.<br><br>If not already connected, connect to the E5-APP-B card via the serial port.<br><br>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B A card's adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b> |
| 3.<br><input type="checkbox"/>   | <b>MPS B:</b> Login prompt is displayed.<br><br><hostname> console login:<br><br>Note: Hit enter if no login prompt is displayed. |   |
| 4.<br><input type="checkbox"/>   | <b>MPS B:</b> log in as "admusr" user.<br><br>[hostname] consolelogin: admusr<br>password: password                               |   |

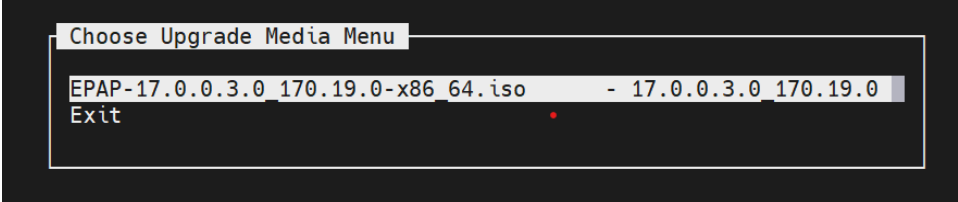
## Procedure 7: Install the Application on Server B

|    |  |  |
|----|--|--|
| 5. | <input type="checkbox"/> <b>MPS B:</b> Start platcfg utility.        | <pre>\$ sudo su - platcfg</pre>  |
| 6. | <input type="checkbox"/> <b>MPS B:</b> Navigate to the Upgrade menu. | <p>The platcfg <b>Main Menu</b> appears.<br/>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p>  <p>Select the <b>Upgrade</b> menu and press [ENTER].</p>  |
| 7. | <input type="checkbox"/> <b>MPS X:</b> Validate ISO file.            | Validate ISO file using <a href="#">Procedure A.2</a> .  |
| 8. | <input type="checkbox"/> <b>MPS A:</b> Select Early Upgrade Checks   | Select the “Early Upgrade Checks” menu to verify that the system is ready for upgrade.   |

**Procedure 7: Install the Application on Server B**

|                                    |  |   |
|------------------------------------|--|---|
|                                    |  | <div> </div> <p>If the Early Upgrade Checks fail due to the ongoing syncing of raid mirrors, then wait until the resync is completed and run the “Early Upgrade Checks” again.</p> <pre> Early Checks failed for the next upgrade Look at earlyChecks.log for more info tarting Early Upgrade Checks at 1011413059 Running earlyUpgradeChecks() for Upgrade::EarlyPolicy::TPDEarlyChecks upgrade policy... Verified server is not pending accept of previous upgrade ERROR: Raid mirrors are syncing! ERROR: md2 is syncing! ERROR: earlyUpgradeChecks() code failed for Upgrade::EarlyPolicy::TPDEarlyChecks ERROR: Failed running earlyUpgradeChecks() code Hardware architectures match Install products match. No Application installed yet.. Skip alarm check! ERROR: Early Upgrade Checks Failed! User has requested just to run early checks. No upgrade will be performed... Early Upgrade Checks finished at 1011413059  [adminr@epappri ~]\$ cat /proc/mdstat Personalities : [raid1] md1 : active raid1 sdb2[1] sda2[0]       262080 blocks super 1.0 [2/2] [UU]  md2 : active raid1 sda1[0] sdb1[1]       468447232 blocks super 1.1 [2/2] [UU] [=====.....] resync = 29.7% (139377920/468447232) finish=73.0min speed=75060K/sec bitmap: 4/4 pages [16KB], 65536KB chunk  unused devices: &lt;none&gt; </pre> <p>Contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section, if the early upgrade checks fail due to any other reason.</p> |
| <p>9. <input type="checkbox"/></p> | <p><b>MPS A:</b> Navigate to the Initiate Upgrade menu</p> | <p>Select the <b>Initiate Upgrade</b> menu and press [ENTER].</p> <div> </div>  |

## Procedure 7: Install the Application on Server B

|   |  |   |
|---|--|---|
| <p>10.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Select the Upgrade Media.</p> | <p>The screen displays a message that it is searching for upgrade media. When the upgrade media is found, an Upgrade Media selection menu appears similar-to the example below.</p> <p>Select the desired upgrade media and press [ENTER].</p>    |
| <p>11.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Upgrade proceeds.</p>         | <p>The screen displays the following, indicating that the upgrade software is first validating the media, and then proceeding with the upgrade.</p> <pre>No Application installed yet.. Skip alarm check! Verified all raid mirrors are synced. Early Upgrade Checks Have Passed! Early Upgrade Checks finished at 1447429031 Initializing upgrade information...</pre>   |
| <p>12.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Upgrade proceeds.</p>         | <p>Many informational messages appear on the terminal screen as the upgrade proceeds. The messages are not shown here for the sake of clarity.</p> <p>When installation is complete, the server reboots.</p>  |
| <p>13.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Upgrade completed.</p>        | <p>After the final reboot, the screen displays the login prompt as in the example below.</p> <pre>Starting atd: [ OK ] ~~ /etc/rc4.d/S98ExQueue start ~~ ExQueue started. Starting TKLCe5appb: [ OK ] Checking network config files: [ OK ] Daemon is not running... AlarmMgr daemon is not running, delaying by 1 minute ~~ /etc/rc4.d/S99Epap start ~~ EPAP configuration data not found. Exiting... ~~ /etc/rc4.d/S99Pdba start ~~ EPAP configuration data not found. Exiting... Starting smartd: [ OK ] Daemon is not running... AlarmMgr daemon is not running, delaying by 1 minute TPDhpDiskStatus stop/pre-start, process 5527 TKLChwmgmtcli stop/pre-start, process 5508</pre> |

## Procedure 7: Install the Application on Server B

|                                 |   |  |
|---------------------------------|---|--|
|                                 |   | Oracle Linux Server release 6.9<br>Kernel 2.6.32-642.6.2.el6prere17.4.0.0.0_88.32.0.x86_64 on an x86_64  |
| 14.<br><input type="checkbox"/> | <b>MPS B:</b> log in as "epapdev" user. | <b>[hostname] console login: epapdev</b><br><b>password: password</b>  |
| 15.<br><input type="checkbox"/> | <b>MPS B:</b> Check the Upgrade log.    | <p>Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.</p> <pre>\$ grep -i error /var/TKLC/log/upgrade/upgrade.log</pre> <p>Check the output of the upgrade log. Contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section, if the output contains any error except the following:</p> <pre>[root@Salta-B core]# grep -i error /var/TKLC/log/upgrade/upgrade.log 1673985608::ERROR: run-r1841b65093e14801be5696ea62d92ac2 is not recognized as a systemd service! 1673985608::ERROR: Could not stop run- r1841b65093e14801be5696ea62d92ac2! 1673985608::ERROR: service_conf reconfig failed! [root@Salta-B core]#</pre> <pre>\$ grep -i warning /var/TKLC/log/upgrade/upgrade.log</pre> <p>Examine the output of the above command to determine if any warnings were reported.<br/>Contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section, if the output contains any warnings beside the following:</p> <pre>[root@Salta-B core]# grep -i error /var/TKLC/log/upgrade/upgrade.log 1673985608::ERROR: run-r1841b65093e14801be5696ea62d92ac2 is not recognized as a systemd service! 1673985608::ERROR: Could not stop run- r1841b65093e14801be5696ea62d92ac2! 1673985608::ERROR: service_conf reconfig failed! [root@Salta-B core]# grep -i warning /var/TKLC/log/upgrade/upgrade.log 1673985030::* write: WARNING:: Could not find configured path "/var/TKLC/epap/db". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/logs".</pre> |

## Procedure 7: Install the Application on Server B

|     |   |  |
|-----|---|--|
|     |   | <pre> 1673985031:* write: WARNING:: Could not find configured path "/var/TKLC/epap/free". 1673985031:* write: WARNING:: Could not find configured path "/var/TKLC/epap/db". 1673985031:* write: WARNING:: Could not find configured path "/var/TKLC/epap/logs". 1673985031:* write: WARNING:: Could not find configured path "/var/TKLC/epap/free". 1673985033::useradd: warning: the home directory already exists. 1673985476::2023-01-17T19:57:57.683121Z 0 [Warning] [MY-013746] [Server] A deprecated TLS version TLSv1 is enabled for channel mysql_main 1673985478::2023-01-17T19:57:57.683144Z 0 [Warning] [MY-013746] [Server] A deprecated TLS version TLSv1.1 is enabled for channel mysql_main 1673985478::2023-01-17T19:57:57.808924Z 6 [Warning] [MY-010453] [Server] root@localhost is created with an empty password ! Please consider switching off the --initialize-insecure option. 1673985551::WARNING: A new file was added to xml alarm files...reparsing xml... 1673985551::WARNING: FILE: /usr/TKLC/plat/etc/alarms/alarms_mps.xml 1673985571::TKLCepap-HA #####warning: group root} does not exist - using root [root@Salta-B core]# </pre> |
| 16. | <input type="checkbox"/> <b>MPS B:</b> Check that the upgrade completed successfully.   | <pre> \$ grep "Upgrade returned success" /var/TKLC/log/upgrade/upgrade.log </pre>  |
| 17. | <input type="checkbox"/> <b>MPS B:</b> Check that the upgrade completed successfully.   | <p>Verify that the message “Upgrade returned success!” is displayed. If it is not, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section.</p> <pre> 1399367207:: Upgrade returned success! </pre>   |
| 18. | <p>Login to MPS B via epapdev user and go to directory /usr/TKLC/epap/bin and Run the following command:<br/>./mysql_setup.pl</p> | <pre> [epapdev@Salta-B ~]# ./mysql_setup.pl </pre>   |
| 19. | <b>MPS B:</b>   | <pre> Switch to root user., \$su - </pre>  |

## Procedure 7: Install the Application on Server B

|                                     |   |   |
|-------------------------------------|---|---|
| <input type="checkbox"/>            | <p>Login to MPS B via root user and update ssh_config to disable MD5 and MAC algorithm for security</p> | <p>&lt;root Password&gt;</p> <p>Perform following steps to disable unsecure algorithm for ssh:</p> <ol style="list-style-type: none"> <li>1. <code>\$ grep "MACs hmac-md5,hmac-md5-96," /etc/ssh/ssh_config</code><br/>If output contains "MACs hmac-md5,hmac-md5-96", Run the below steps 2, 3 and 4. Else go to step 5.</li> <li>2. <code>\$ rcstool co /etc/ssh/ssh_config</code></li> <li>3. <code>\$ sed -i -e '/MACs hmac-md5,hmac-md5-96,hmac-sha1-96/d' /etc/ssh/ssh_config</code></li> <li>4. <code>\$ rcstool ci /etc/ssh/ssh_config</code></li> <li>5. <code>\$ grep "MACs hmac-sha2-256,hmac-sha2-512" /etc/ssh/sshd_config</code><br/>If no output is displayed for above command continue to next command in steps else skip these steps</li> <li>6. <code>\$ rcstool co /etc/ssh/sshd_config</code></li> <li>7. <code>\$ sed -i '\$ a \\tMACs hmac-sha2-256,hmac-sha2-512' /etc/ssh/sshd_config</code></li> <li>8. <code>\$ rcstool ci /etc/ssh/sshd_config</code></li> <li>9. <code>\$ systemctl restart sshd</code></li> </ol> |
| <p>20.</p> <input type="checkbox"/> | <p>Update the httpd.conf file to disable the Cache control no-store policy.</p>                         | <p>Perform the following steps to disable Cache control no-store policy:</p> <ol style="list-style-type: none"> <li>1. <code>\$ grep "Header set Cache-Control no-store" /etc/httpd/conf/httpd.conf</code><br/>If the output contains "Header set Cache-Control no-store", Run the below steps. If no output is displayed for the above command, skip the steps mentioned below.</li> <li>2. <code>\$ sudo sed -i '/Cache-Control no-store/c\#Header set Cache-Control no-store' /etc/httpd/conf/httpd.conf</code></li> <li>3. <code>\$ grep "Header set Cache-Control no-store" /etc/httpd/conf/httpd.conf</code></li> </ol> <p>The output should be "#Header set Cache-Control no-store" showing that the line has been commented.</p>  |
| <p>21.</p> <input type="checkbox"/> | <p><b>MPS B:</b> Install Complete.</p>  | <p>Install Procedure is complete.</p>   |

### Procedure 7: Install the Application on Server B

|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
| 22.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><br><b>\$ date</b> |
|---------------------------------|---------------------------------|--|

### Procedure 8 Install Application on server A

#### Procedure 8: Install the Application on Server A

|                                  |   |  |
|----------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure installs the application on the server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</b></p> |  |
| 1.<br><input type="checkbox"/>   | <b>MPS A:</b> Install EPAP on 1A.   | Perform Procedure A.12 or copy EPAP 16.4 ISO to /var/TKLC/upgrade directory.   |
| 2.<br><input type="checkbox"/>   | Create a terminal window and log into MPS A.  | <p>If not already connected, connect to the E5-APP-B card via the serial Port.</p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B B card's adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p> |
| 3.<br><input type="checkbox"/>   | <b>MPS A:</b> Login prompt is displayed.  | <p>&lt;hostname&gt; console login:</p> <p>Note: Hit enter if no login prompt is displayed.</p>   |
| 4.<br><input type="checkbox"/>   | <b>MPS A:</b> log in as "admusr" user.  | <p><b>[hostname] console login: admusr</b></p> <p><b>password: password</b></p>  |
| 5.<br><input type="checkbox"/>   | <b>MPS A:</b> Start platcfg utility.  | <b>\$ sudo su - platcfg</b>  |
| 6.<br><input type="checkbox"/>   | <b>MPS A:</b> Navigate to the Upgrade menu.   | <p>The platcfg <b>Main Menu</b> appears.</p> <p>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p>  |

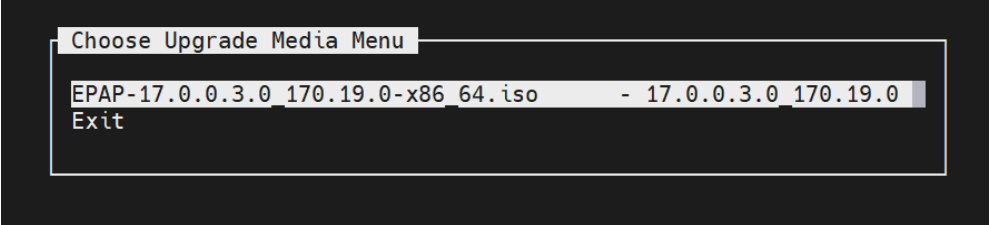
**Procedure 8: Install the Application on Server A**

|                                    |  |  |
|------------------------------------|--|--|
|                                    |  | <div> </div> <p>Select the <b>Upgrade</b> menu and press [ENTER].</p> <div> </div> |
| <p>7.</p> <input type="checkbox"/> | <p><b>MPS X:</b> Validate ISO file.</p>          | <p>Validate ISO file using <a href="#">Procedure A.2.</a></p>  |
| <p>8.</p> <input type="checkbox"/> | <p><b>MPS A:</b> Select Early Upgrade Checks</p> | <p>Select the “Early Upgrade Checks” menu to verify that the system is ready for upgrade.</p>  |

**Procedure 8: Install the Application on Server A**

|                                    |  |   |
|------------------------------------|--|---|
|                                    |  | <div> <p>The image shows a terminal window with a black background and white text. At the top, a white box contains the text 'Upgrade Menu'. Below it, a list of options is displayed: 'Validate Media', 'Early Upgrade Checks' (highlighted with a white bar), 'Initiate Upgrade', 'Copy USB Upgrade Image', 'Non Tekelec RPM Management', and 'Exit'.</p> </div> <p>If the Early Upgrade Checks fail due to the ongoing syncing of raid mirrors, then wait until the resync is completed and run the “Early Upgrade Checks” again.</p> <pre> Early Checks failed for the next upgrade Look at earlyChecks.log for more info Starting Early Upgrade Checks at 1011413059 Running earlyUpgradeChecks() for Upgrade::EarlyPolicy::TPDEarlyChecks upgrade policy... Verified server is not pending accept of previous upgrade ERROR: Raid mirrors are syncing! ERROR: md2 is syncing! ERROR: earlyUpgradeChecks() code failed for Upgrade::EarlyPolicy::TPDEarlyChecks ERROR: Failed running earlyUpgradeChecks() code Hardware architectures match Install products match. No Application installed yet.. Skip alarm check! ERROR: Early Upgrade Checks Failed! User has requested just to run early checks. No upgrade will be performed... Early Upgrade Checks finished at 1011413059  [admin@ppp1 ~]\$ cat /proc/mdstat Personalities : [raid1] md1 : active raid1 sdb2[1] sda2[0]       262080 blocks super 1.0 [2/2] [UU]  md2 : active raid1 sda1[0] sdb1[1]       468447232 blocks super 1.1 [2/2] [UU] [====&gt;.....] resync = 29.7% (139377920/468447232) finish=73.0min speed=75060K/sec bitmap: 4/4 pages [16KB], 65536KB chunk  unused devices: &lt;none&gt; </pre> <p>Contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section if the early upgrade checks fail due to any other reason</p> |
| <p>9. <input type="checkbox"/></p> | <p><b>MPS A:</b> Navigate to the Initiate Upgrade menu</p> | <p>Select the <b>Initiate Upgrade</b> menu and press [ENTER].</p> <div> <p>The image shows a terminal window with a black background and white text. At the top, a white box contains the text 'Upgrade Menu'. Below it, a list of options is displayed: 'Validate Media', 'Early Upgrade Checks', 'Initiate Upgrade' (highlighted with a white bar), 'Copy USB Upgrade Image', 'Non Tekelec RPM Management', and 'Exit'.</p> </div>  |

## Procedure 8: Install the Application on Server A

|                                     |  |   |
|-------------------------------------|--|---|
| <p>10. <input type="checkbox"/></p> | <p><b>MPS A:</b> Select the Upgrade Media.</p> | <p>The screen displays a message that it is searching for upgrade media. When the upgrade media is found, an Upgrade Media selection menu appears similar-to the example below.</p> <p>Select the desired upgrade media and press [ENTER].</p>    |
| <p>11. <input type="checkbox"/></p> | <p><b>MPS A:</b> Upgrade proceeds.</p>         | <p>The screen displays the output like following, indicating that the upgrade software is first running the upgrade checks, and then proceeding with the upgrade.</p> <pre>No Application installed yet.. Skip alarm check! Verified all raid mirrors are synced. Early Upgrade Checks Have Passed! Early Upgrade Checks finished at 1447429031 Initializing upgrade information...</pre>   |
| <p>12. <input type="checkbox"/></p> | <p><b>MPS A:</b> Upgrade proceeds.</p>         | <p>Many informational messages appear on the terminal screen as the upgrade proceeds. The messages are not shown here for clarity sake.</p> <p>When installation is complete, the server reboots.</p>   |
| <p>13. <input type="checkbox"/></p> | <p><b>MPS A:</b> Upgrade completed.</p>        | <p>After the final reboot, the screen displays the login prompt as in the example below.</p> <pre>Starting atd: [ OK ] ~~ /etc/rc4.d/S98ExQueue start ~~ ExQueue started. Starting TKLCe5appb: [ OK ] Checking network config files: [ OK ] Daemon is not running... AlarmMgr daemon is not running, delaying by 1 minute ~~ /etc/rc4.d/S99Epap start ~~ EPAP configuration data not found. Exiting... ~~ /etc/rc4.d/S99Pdba start ~~ EPAP configuration data not found. Exiting... Starting smartd: [ OK ] Daemon is not running... AlarmMgr daemon is not running, delaying by 1 minute TPDhpDiskStatus stop/pre-start, process 5527 TKLChwmgmtcli stop/pre-start, process 5508</pre> |

## Procedure 8: Install the Application on Server A

|                                 |   |   |
|---------------------------------|---|---|
|                                 |   | Oracle Linux Server release 6.9<br>Kernel 2.6.32-642.6.2.el6prere17.4.0.0.0_88.32.0.x86_64 on an x86_64   |
| 14.<br><input type="checkbox"/> | <b>MPS A:</b> log in as "epapdev" user. | <b>[hostname] consolelogin: epapdev</b><br><b>password: <i>password</i></b>   |
| 15.<br><input type="checkbox"/> | <b>MPS A:</b> Check the Upgrade log.    | Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.<br><br><b>\$ grep -i error /var/TKLC/log/upgrade/upgrade.log</b><br><br>Check the output of the upgrade log. Contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section, if the output contains any errors beside the following:<br><br>[root@Salta-B core]# grep -i error /var/TKLC/log/upgrade/upgrade.log<br>1673985608::ERROR: run-r1841b65093e14801be5696ea62d92ac2 is not recognized as a systemd service!<br>1673985608::ERROR: Could not stop run-r1841b65093e14801be5696ea62d92ac2!<br>1673985608::ERROR: service_conf reconfig failed!<br>[root@Salta-B core]#<br><br><b>\$ grep -i warning /var/TKLC/log/upgrade/upgrade.log</b><br><br>Examine the output of the above command to determine if any warnings were reported.<br>Contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section, if the output contains any warnings beside the following:<br><br>[root@Salta-B core]# grep -i error /var/TKLC/log/upgrade/upgrade.log<br>1673985608::ERROR: run-r1841b65093e14801be5696ea62d92ac2 is not recognized as a systemd service!<br>1673985608::ERROR: Could not stop run-r1841b65093e14801be5696ea62d92ac2!<br>1673985608::ERROR: service_conf reconfig failed!<br>[root@Salta-B core]# grep -i warning /var/TKLC/log/upgrade/upgrade.log<br>1673985030::* write: WARNING:: Could not find configured path "/var/TKLC/epap/db".<br>1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/logs". |

## Procedure 8: Install the Application on Server A

|     |   |  |
|-----|---|--|
|     |   | <pre> 1673985031:* write: WARNING:: Could not find configured path "/var/TKLC/epap/free". 1673985031:* write: WARNING:: Could not find configured path "/var/TKLC/epap/db". "/var/TKLC/epap/rt". 1673985031:* write: WARNING:: Could not find configured path 1673985031:* write: WARNING:: Could not find configured path "/var/TKLC/epap/logs". 1673985031:* write: WARNING:: Could not find configured path "/var/TKLC/epap/free". 1673985033::useradd: warning: the home directory already exists. 1673985476::2023-01-17T19:57:57.683121Z 0 [Warning] [MY-013746] [Server] A deprecated TLS version TLSv1 is enabled for channel mysql_main 1673985478::2023-01-17T19:57:57.683144Z 0 [Warning] [MY-013746] [Server] A deprecated TLS version TLSv1.1 is enabled for channel mysql_main 1673985478::2023-01-17T19:57:57.808924Z 6 [Warning] [MY-010453] [Server] root@localhost is created with an empty password ! Please consider switching off the --initialize-insecure option. 1673985551::WARNING: A new file was added to xml alarm files...reparsing xml... 1673985551::WARNING: FILE: /usr/TKLC/plat/etc/alarms/alarms_mps.xml 1673985571::TKLCepap-HA #####warning: group root} does not exist - using root [root@Salta-B core]#  In case of a PDB only setup, ignore the following:  1779905417::ERROR: Failed running cmd: /usr/sbin/ifup eth01. 1779905417::ERROR : [/etc/sysconfig/network-scripts/ifup-eth] Error, some other host (00:10:E0:65:24:E4) already uses address 192.168.61.104. 1779905417::ERROR: Failed to call inherited start function 1779905417::ERROR: Failed to start interface  Refer to <a href="#">section 3.7</a> to know more about logging. </pre> |
| 16. | <input type="checkbox"/> <b>MPS A:</b> Check that the upgrade completed successfully. | <b>\$ grep "Upgrade returned success" /var/TKLC/log/upgrade/upgrade.log</b>  |
| 17. | <input type="checkbox"/> <b>MPS A:</b> Check that the upgrade completed successfully. | Verify that the message "Upgrade returned success!" is displayed. If it is not, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section.<br>1399367207:: Upgrade returned success!  |
| 18. | Login to MPS A via epapdev user and   | [epapdev@Salta-A ~]# ./mysql_setup.pl  |

## Procedure 8: Install the Application on Server A

|                                     |  |   |
|-------------------------------------|--|---|
| <input type="checkbox"/>            | <p>go to directory /usr/TKLC/epap/bin and Run the following command:<br/><b>./mysql_setup.pl</b></p>             |   |
| <p>19.</p>                          | <p>MPS A: : Login to MPS A via root user and update ssh_config to disable MD5 and MAC algorithm for security</p> | <p><b>Switch to root user.,</b><br/><b>\$su -</b><br/>&lt;root Password&gt;</p> <p>Perform following steps to disable unsecure algorithm for ssh:</p> <ol style="list-style-type: none"> <li><b>1. \$ grep "MACs hmac-md5,hmac-md5-96," /etc/ssh/ssh_config</b><br/>If output contains "MACs hmac-md5,hmac-md5-96", Run the below steps 2, 3 and 4. Else go to step 5.</li> <li><b>2. \$ rcstool co /etc/ssh/ssh_config</b></li> <li><b>3. \$ sed -i -e '/MACs hmac-md5,hmac-md5-96,hmac-sha1-96/d' /etc/ssh/ssh_config</b></li> <li><b>4.\$ rcstool ci /etc/ssh/ssh_config</b></li> <li><b>5. \$ grep "MACs hmac-sha2-256,hmac-sha2-512" /etc/ssh/sshd_config</b><br/>If no output is displayed for above command continue to next command in steps else skip these steps</li> <li><b>6. \$ rcstool co /etc/ssh/sshd_config</b></li> <li><b>7. \$ sed -i '\$ a \\tMACs hmac-sha2-256,hmac-sha2-512' /etc/ssh/sshd_config</b></li> <li><b>8. \$ rcstool ci /etc/ssh/sshd_config</b></li> <li><b>9. \$ systemctl restart sshd</b></li> </ol> |
| <p>20.</p> <input type="checkbox"/> | <p>Update the httpd.conf file to disable the Cache control no-store policy</p>                                   | <p>Perform the following steps to disable Cache control no-store policy:</p> <ol style="list-style-type: none"> <li><b>1. \$ grep "Header set Cache-Control no-store" /etc/httpd/conf/httpd.conf</b></li> </ol> <p>If the output contains "Header set Cache-Control no-store", Run the below steps. If no output is displayed for the above command, skip the steps mentioned below.</p>  |

### Procedure 8: Install the Application on Server A

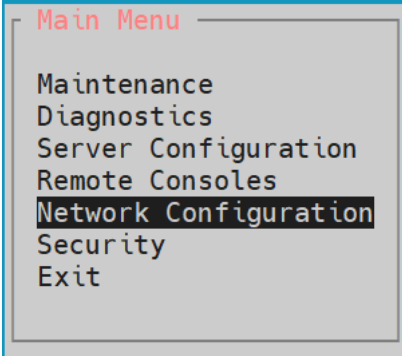
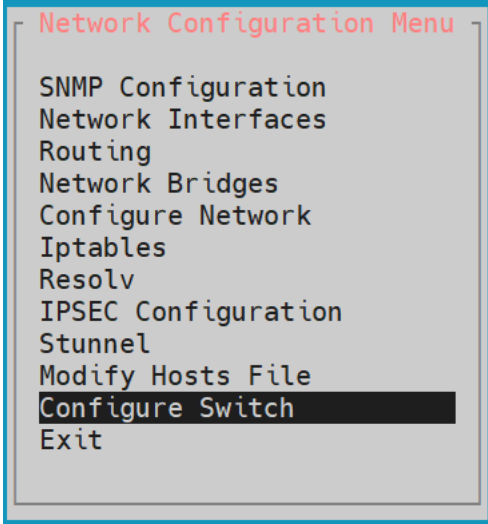
|     |  |  |
|-----|--|--|
|     |  | <p>2. <code>sudo sed -i '/Cache-Control no-store/c\#Header set CacheControl no-store' /etc/httpd/conf/httpd.conf</code></p> <p>3. <code>\$ grep "Header set Cache-Control no-store" /etc/httpd/conf/httpd.conf</code></p> <p>The output should be "#Header set Cache-Control no-store" showing that the line has been commented.</p> |
| 21. | <input type="checkbox"/> MPS A: Install Complete.        | Install Procedure is complete.   |
| 22. | <input type="checkbox"/> Note down the timestamp in log. | Run the following command:<br><br><code>\$ date</code>   |

### Procedure 9 Switch Configuration

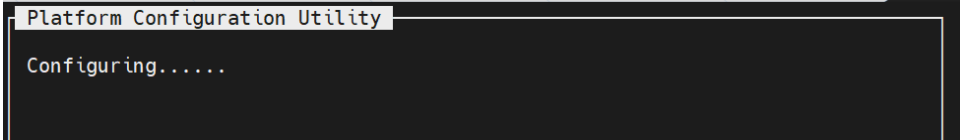
#### Procedure 9: Switch Configuration

|                       |  |  |
|-----------------------|--|--|
| S<br>T<br>E<br>P<br># | <p>This procedure Configures the Switches of a new Installed E5-APP-B EPAP Server Pair.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p> |  |
|                       | <p>1. <input type="checkbox"/> Make the cross-over cable connections.</p>  | <p><b>NOTE: THIS IS IMPORTANT</b></p> <p>CONNECT the cross-over cable from <b>Port 1 of Switch1A</b> to <b>Port 1 of Switch1B</b>.</p> <p>DISCONNECT the cross-over cable from <b>Port 2 of Switch1A</b> to <b>Port 2 of Switch1B</b>.</p> <p>Please make a note that the switch configuration should only be attempted by a skilled technician and not all.</p> <p>All uplinks should be removed while switch configuration.</p> <p>There should not be any loop in the switches during their configuration.</p> <p>Make sure to enable and start tftp service by using following commands if not started earlier :-<br/> <code>sudo systemctl start tftp</code><br/> <code>sudo systemctl enable tftp</code></p> |

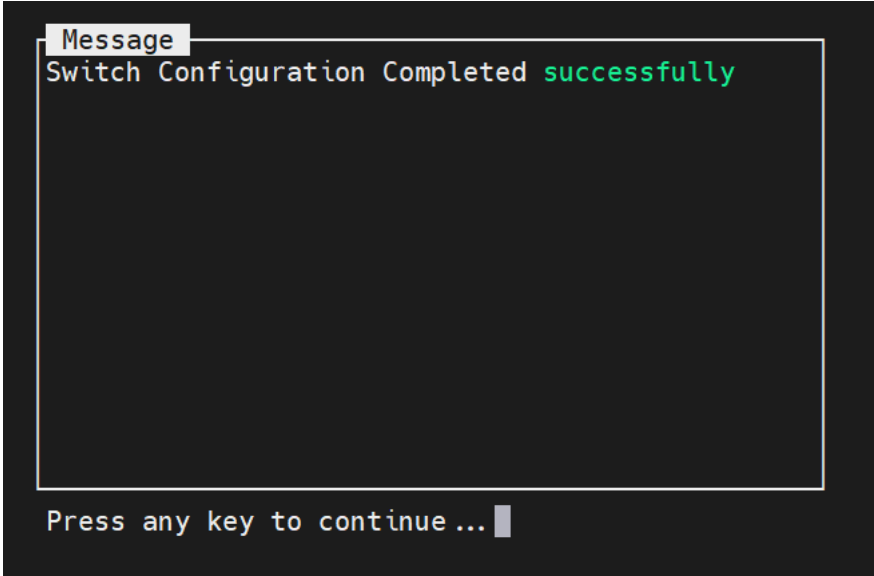
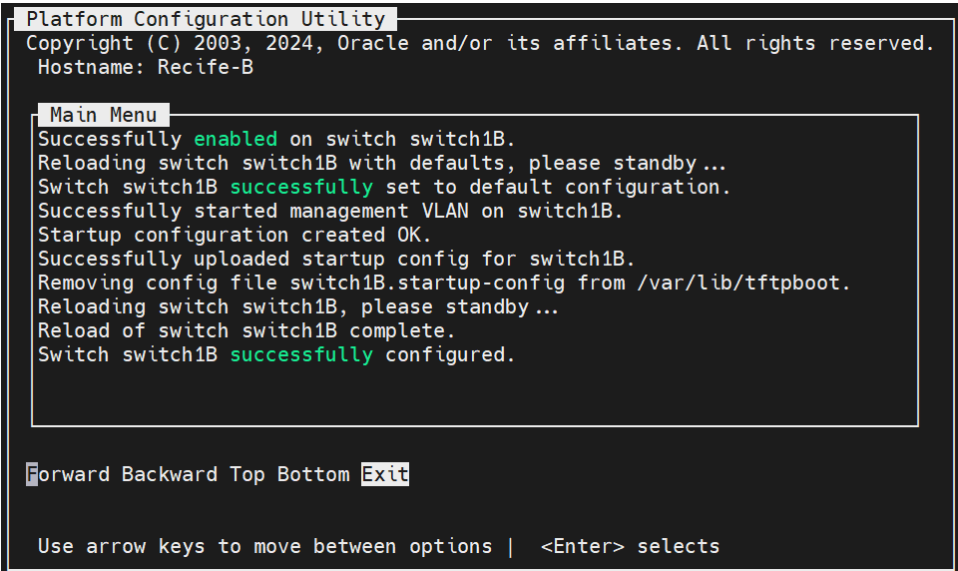
## Procedure 9: Switch Configuration

|                                |   |  |
|--------------------------------|---|--|
| 2.<br><input type="checkbox"/> | <b>MPS B:</b> log in as "admusr" user.                    | <code>[hostname] consolelogin: admusr<br/>password: <i>password</i></code>   |
| 3.<br><input type="checkbox"/> | <b>MPS B:</b> Set Telco Switch with non-default speed.    | Note: The default speed to be set on the switch is 1000Mbps. However, the recommended setting can be changed to 'auto', '1000/full' or '100/full'. At the EAGLE end, the operator can set the IP LINK to 'auto'. |
| 4.<br><input type="checkbox"/> | <b>MPS B:</b> Start platcfg utility.                      | <code>\$ sudo su - platcfg</code>  |
| 5.<br><input type="checkbox"/> | <b>MPS B:</b> Navigate to the Network Configuration Menu. | On the platcfg <b>Main Menu</b> , select <b>Network Configuration</b> and press [ENTER].<br>                                  |
| 6.<br><input type="checkbox"/> | <b>MPS B:</b> Navigate to the Configure Switch Menu.      | On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].<br>                                     |

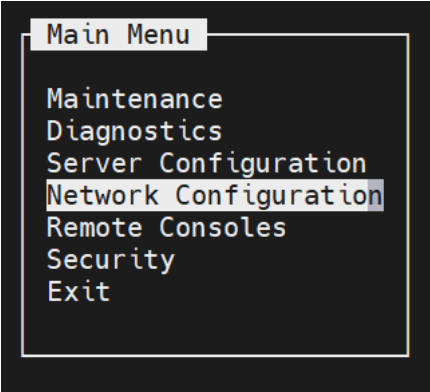
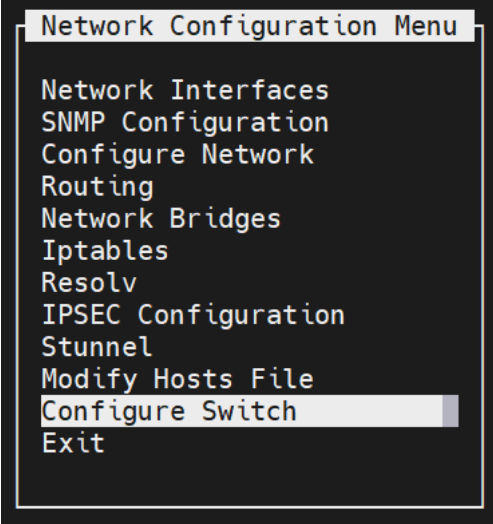
## Procedure 9: Switch Configuration

|                                    |   |  |
|------------------------------------|---|--|
| <p>7.</p> <input type="checkbox"/> | <p><b>MPS B:</b> Select Switch1B.</p>                 | <p>On the Select Switch Menu, select <b>Switch1B – Second Switch in Frame 1</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Select Switch Menu" with the following text:         <pre>switch1A - Upper Switch in Frame 1 switch1B - Second Switch in Frame 1 switch1C - Third Switch in Frame 1 switch1D - Lower Switch in Frame 1 All Switches Exit</pre>         The option "switch1B - Second Switch in Frame 1" is highlighted with a white background.       </p> |
| <p>8.</p> <input type="checkbox"/> | <p><b>MPS B:</b> Confirm Switch 1B Configuration.</p> | <p>Select <b>Yes</b> and press [ENTER] to configure Switch 1B.</p>  <p>The screenshot shows a terminal window with the text:         <pre>Really configure switch switch1B? Disrupt network connectivity?</pre>         At the bottom right, there are two options: "Yes" and "No". The "Yes" option is highlighted with a white background.       </p>   |
| <p>9.</p> <input type="checkbox"/> | <p><b>MPS B:</b> Switch Configuration Screen.</p>     | <p>Configuring the switch takes about 10 minutes, once completed press <b>any key</b> to continue and then click Exit.</p>  <p>The screenshot shows a terminal window titled "Platform Configuration Utility" with the text:         <pre>Configuring.....</pre> </p>  |

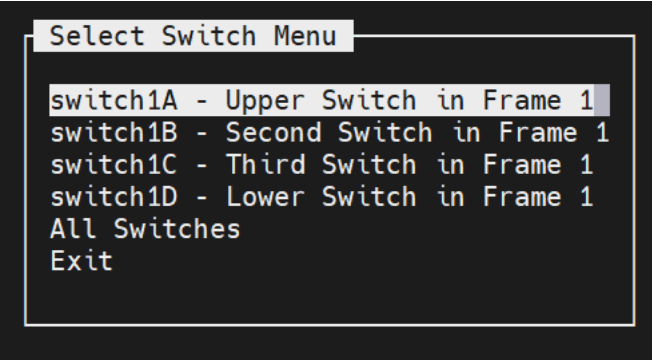
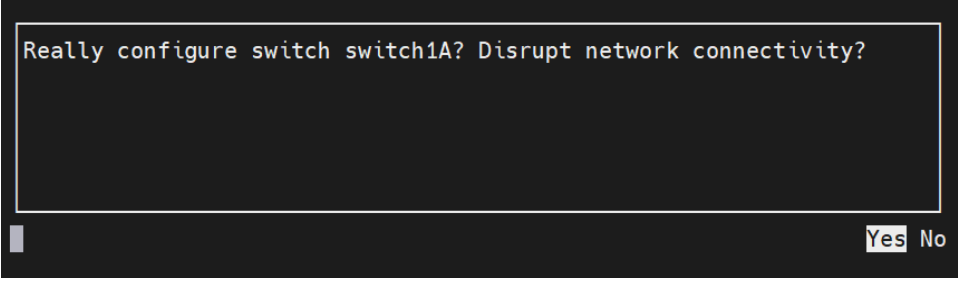
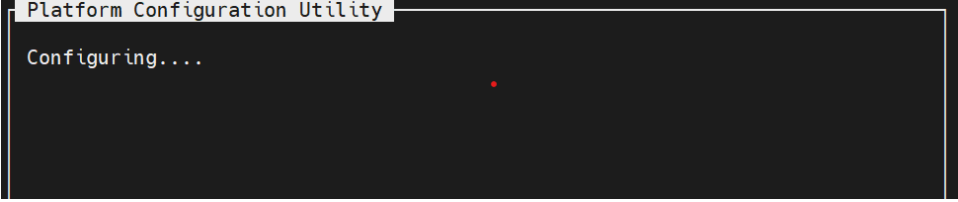
## Procedure 9: Switch Configuration

|                                     |  |   |
|-------------------------------------|--|---|
|                                     |  | <br>   |
| <p>10. <input type="checkbox"/></p> | <p><b>MPS B:</b> Exit out of platcfg.</p>  | <p>Select Exit and press [ENTER] to return to the Network Configuration Menu.<br/>         Select Exit and press [ENTER] to return to the Main Menu.<br/>         Select Exit and press [ENTER] to exit out of platcfg.</p> |
| <p>11. <input type="checkbox"/></p> | <p><b>MPS A:</b> Connect to Server 1A.</p> | <p>Now that Switch 1B is configured, we need to configure switch 1A. Connect to server 1A to configure switch 1A</p> <pre>[hostname] consolelogin: admusr password: <i>password</i></pre>                                   |

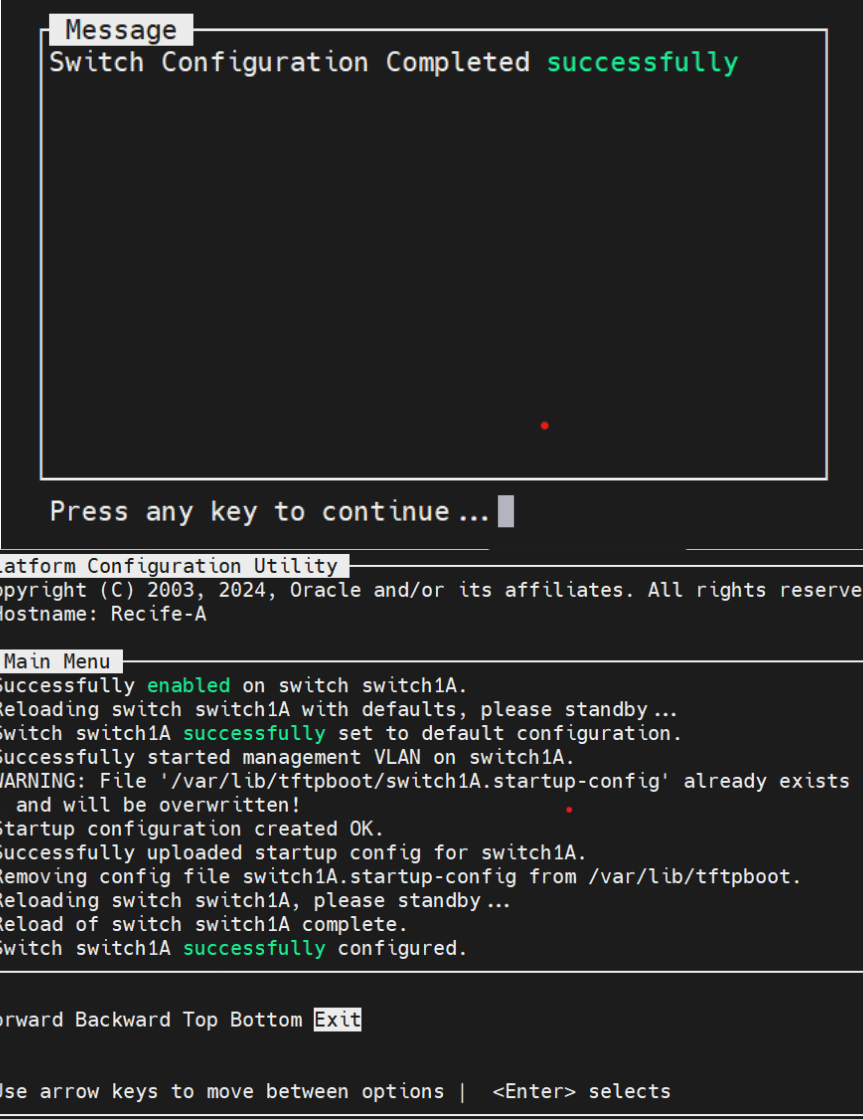
## Procedure 9: Switch Configuration

|                                     |  |   |
|-------------------------------------|--|---|
| <p>12. <input type="checkbox"/></p> | <p><b>MPS A:</b> Set Telco Switch with non-default speed.</p>    | <p>Note: The default speed to be set on the switch is 1000Mbps. However, the recommended setting can be changed to 'auto', '1000/full' or '100/full'.<br/>At the EAGLE end, the operator can set the IP LINK to 'auto'. Otherwise proceed to step 13.</p>   |
| <p>13. <input type="checkbox"/></p> | <p><b>MPS A:</b> Start platcfg. utility</p>                      | <p><b>\$ sudo su - platcfg</b></p>  |
| <p>14. <input type="checkbox"/></p> | <p><b>MPS A:</b> Navigate to the Network Configuration Menu.</p> | <p>On the platcfg <b>Main Menu</b>, select <b>Network Configuration</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a black background and white text. At the top, a white box contains the text 'Main Menu'. Below this, a list of options is displayed: Maintenance, Diagnostics, Server Configuration, Network Configuration (highlighted with a white bar), Remote Consoles, Security, and Exit.</p>  |
| <p>15. <input type="checkbox"/></p> | <p><b>MPS A:</b> Navigate to the Configure Switch Menu.</p>      | <p>On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a black background and white text. At the top, a white box contains the text 'Network Configuration Menu'. Below this, a list of options is displayed: Network Interfaces, SNMP Configuration, Configure Network, Routing, Network Bridges, Iptables, Resolv, IPSEC Configuration, Stunnel, Modify Hosts File, Configure Switch (highlighted with a white bar), and Exit.</p> |
| <p>16. <input type="checkbox"/></p> | <p><b>MPS A:</b> Select Switch1A.</p>                            | <p>On the Select Switch Menu, select <b>Switch1A – Upper Switch in Frame 1</b> and press [ENTER].</p>   |

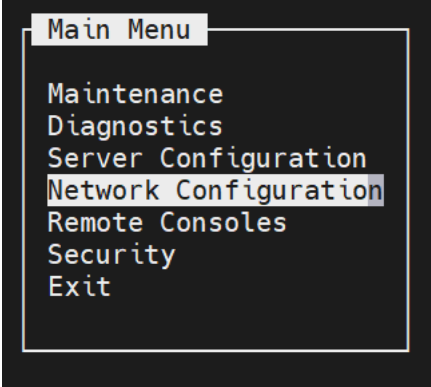
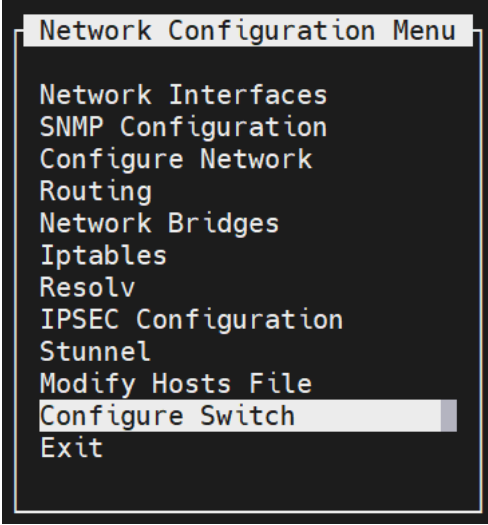
## Procedure 9: Switch Configuration

|                                     |   |   |
|-------------------------------------|---|---|
|                                     |   |   |
| <p>17. <input type="checkbox"/></p> | <p><b>MPS A:</b> Confirm Switch 1A Configuration.</p>       | <p>Select <b>Yes</b> and press <b>[ENTER]</b> to configure Switch 1A.</p>    |
| <p>18. <input type="checkbox"/></p> | <p><b>MPS A:</b> Navigate to the Configure Switch Menu.</p> | <p>Configuring the switch takes about 10 minutes, once completed press <b>any key</b> to continue and then click Exit.</p>  |

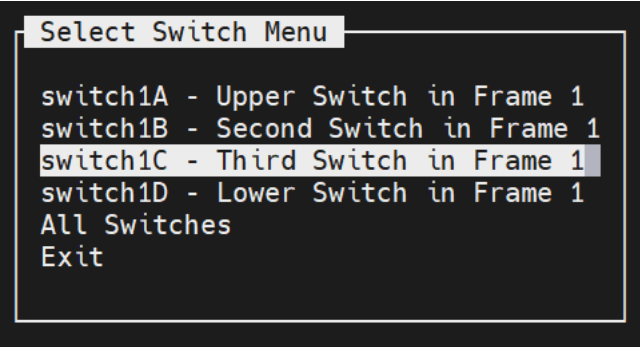
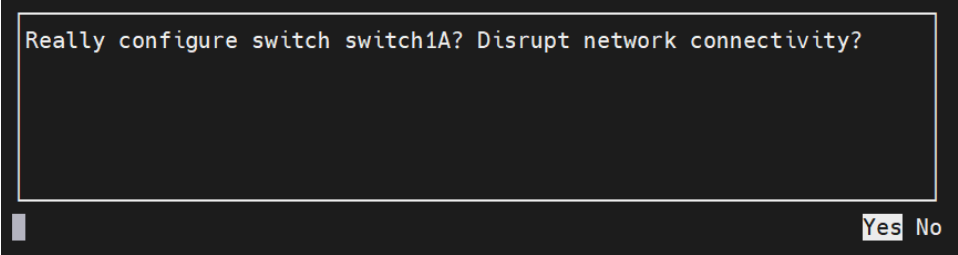
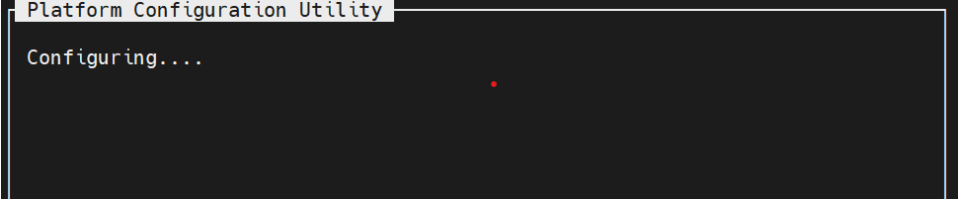
## Procedure 9: Switch Configuration

|                                     |   |   |
|-------------------------------------|---|---|
|                                     |   |  <p>The screenshot shows two terminal windows. The top window displays a 'Message' box with the text 'Switch Configuration Completed successfully' in green. Below it, it says 'Press any key to continue ...'. The bottom window shows the 'Platform Configuration Utility' interface. It includes a copyright notice for 2003, 2024, Oracle and/or its affiliates. The hostname is 'Recife-A'. A 'Main Menu' box contains the following text: 'Successfully enabled on switch switch1A. Reloading switch switch1A with defaults, please standby... Switch switch1A successfully set to default configuration. Successfully started management VLAN on switch1A. WARNING: File '/var/lib/tftpboot/switch1A.startup-config' already exists, and will be overwritten! Startup configuration created OK. Successfully uploaded startup config for switch1A. Removing config file switch1A.startup-config from /var/lib/tftpboot. Reloading switch switch1A, please standby... Reload of switch switch1A complete. Switch switch1A successfully configured.' At the bottom of the utility, there are navigation options: 'Forward Backward Top Bottom Exit' and a note: 'Use arrow keys to move between options   &lt;Enter&gt; selects'.</p> |
| <p>19. <input type="checkbox"/></p> | <p><b>MPS A:</b> Exit out of platcfg.</p>                 | <p>Select Exit and press [ENTER] to return to the Network Configuration Menu.<br/>         Select Exit and press [ENTER] to return to the Main Menu.<br/>         Select Exit and press [ENTER] to exit out of platcfg.</p>   |
| <p>20. <input type="checkbox"/></p> | <p><b>MPS A:</b> Optional Configuration of Switch 1C.</p> | <p>If the system is installed with 4 switches, proceed with the next step, otherwise skip to step 37.</p>   |
| <p>21. <input type="checkbox"/></p> | <p>Move Serial Cables.</p>                                | <p>On the front of switches 1A and 1B, unplug the serial cables connected to Console port and plug them in switches 1C and 1D Console port respectively.</p>  |

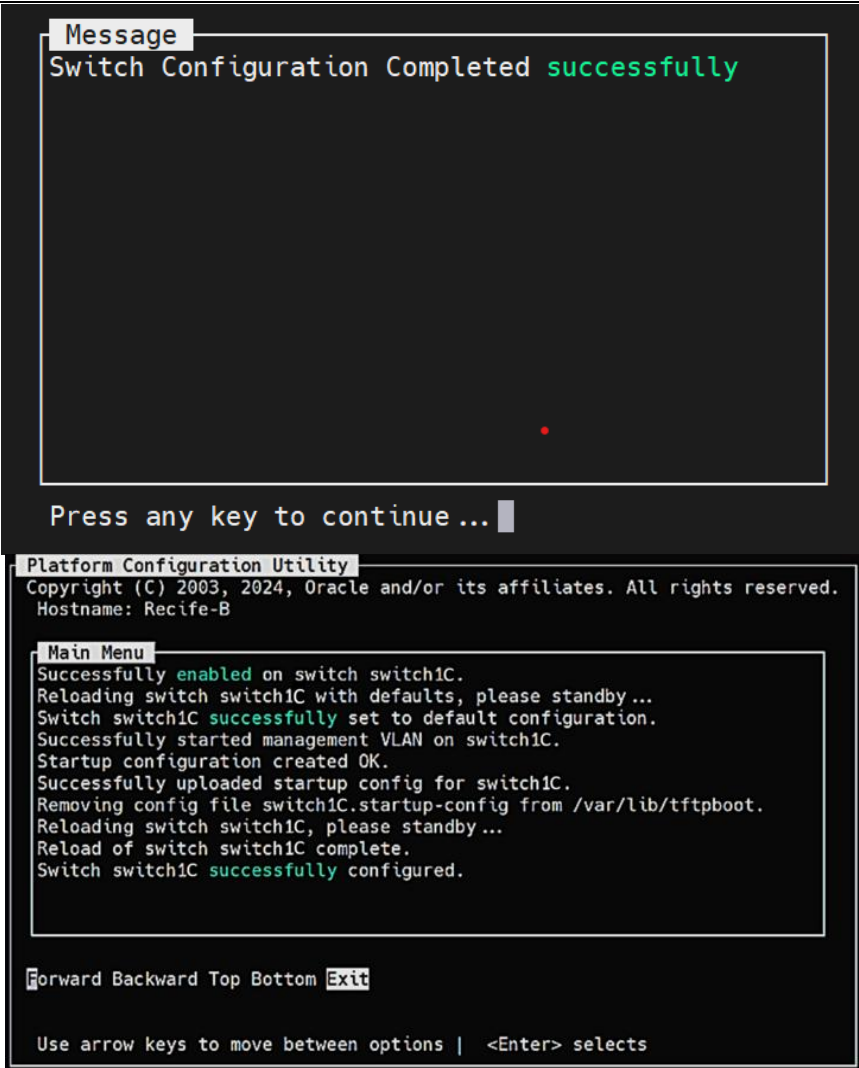
## Procedure 9: Switch Configuration

|                                 |   |  |
|---------------------------------|---|--|
| 22.<br><input type="checkbox"/> | <b>MPS A:</b> Start platcfg utility.                      | <code>\$ sudo su - platcfg</code>  |
| 23.<br><input type="checkbox"/> | <b>MPS A:</b> Navigate to the Network Configuration Menu. | <p>On the platcfg <b>Main Menu</b>, select <b>Network Configuration</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a black background and white text. The title bar reads 'Main Menu'. The menu items are: Maintenance, Diagnostics, Server Configuration, Network Configuration (highlighted with a white bar), Remote Consoles, Security, and Exit.</p>  |
| 24.<br><input type="checkbox"/> | <b>MPS A:</b> Navigate to the Configure Switch Menu.      | <p>On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a black background and white text. The title bar reads 'Network Configuration Menu'. The menu items are: Network Interfaces, SNMP Configuration, Configure Network, Routing, Network Bridges, Iptables, Resolv, IPSEC Configuration, Stunnel, Modify Hosts File, Configure Switch (highlighted with a white bar), and Exit.</p> |
| 25.<br><input type="checkbox"/> | <b>MPS A:</b> Select Switch1C.                            | On the Select Switch Menu, select <b>Switch1C – Third Switch in Frame 1</b> and press [ENTER].   |

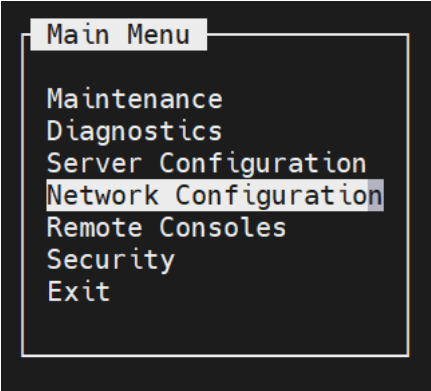
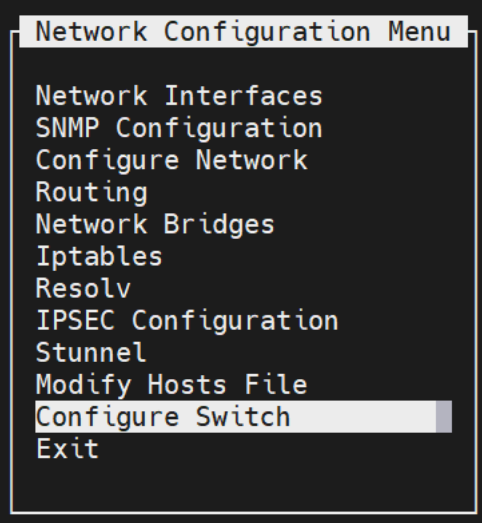
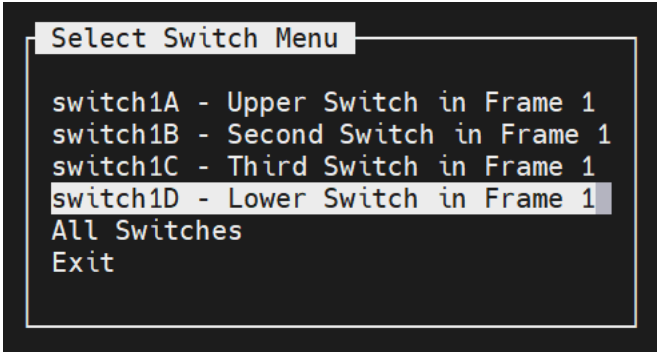
**Procedure 9: Switch Configuration**

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|                                     |   |   |
| <p>26. <input type="checkbox"/></p> | <p><b>MPS A:</b> Confirm Switch 1C Configuration.</p>       | <p>Select <b>Yes</b> and press <b>[ENTER]</b> to configure Switch 1C</p>    |
| <p>27. <input type="checkbox"/></p> | <p><b>MPS A:</b> Navigate to the Configure Switch Menu.</p> | <p>Configuring the switch takes about 10 minutes, once completed press <b>any key</b> to continue and then click Exit.</p>  |

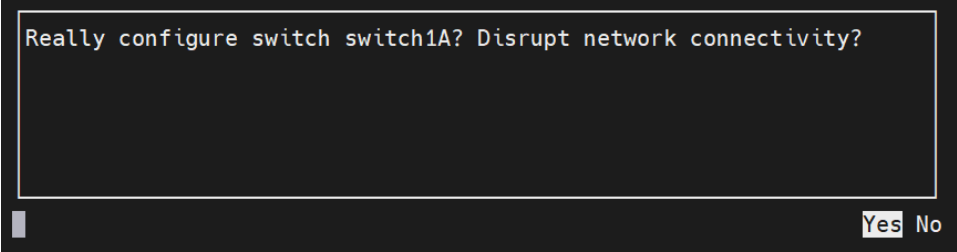
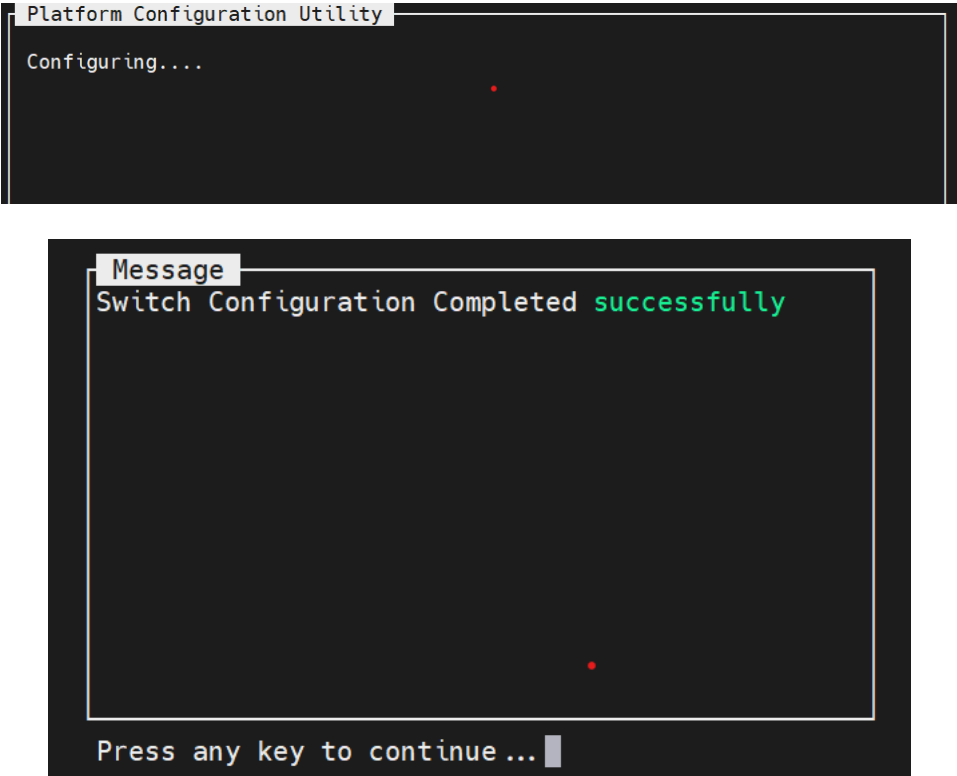
## Procedure 9: Switch Configuration

|                                     |  |  |
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|                                     |  |  <p>The screenshot shows the Platform Configuration Utility (platcfg) interface. At the top, a message box displays "Switch Configuration Completed successfully". Below this, it prompts "Press any key to continue ...". The main menu lists several options, including "Exit". The bottom of the screen shows navigation instructions: "Use arrow keys to move between options   &lt;Enter&gt; selects".</p> |
| <p>28. <input type="checkbox"/></p> | <p><b>MPS A:</b> Exit out of platcfg.</p>                        | <p>Select Exit and press [ENTER] to return to the Network Configuration Menu.<br/>         Select Exit and press [ENTER] to return to the Main Menu.<br/>         Select Exit and press [ENTER] to exit out of platcfg.</p>  |
| <p>29. <input type="checkbox"/></p> | <p><b>MPS B:</b> Connect to Server 1B.</p>                       | <pre>[hostname] consolelogin: admusr password: password</pre>  |
| <p>30. <input type="checkbox"/></p> | <p><b>MPS B:</b> Start platcfg utility.</p>                      | <pre>\$ sudo su - platcfg</pre>  |
| <p>31. <input type="checkbox"/></p> | <p><b>MPS B:</b> Navigate to the Network Configuration Menu.</p> | <p>On the platcfg <b>Main Menu</b>, select <b>Network Configuration</b> and press [ENTER].</p>   |

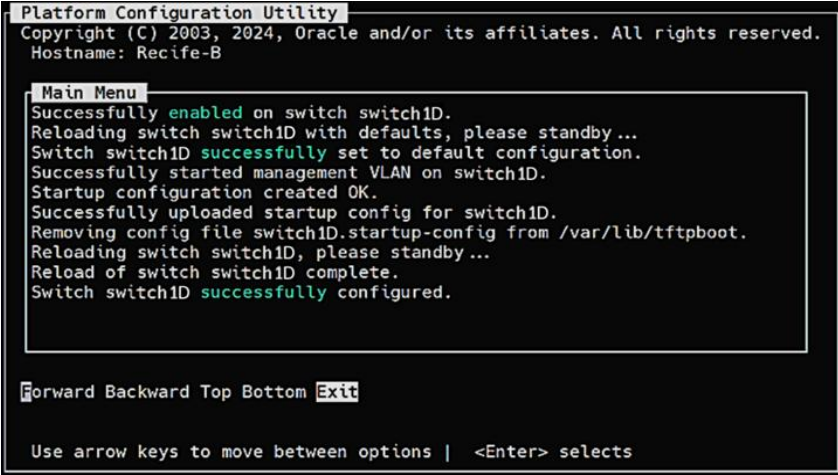
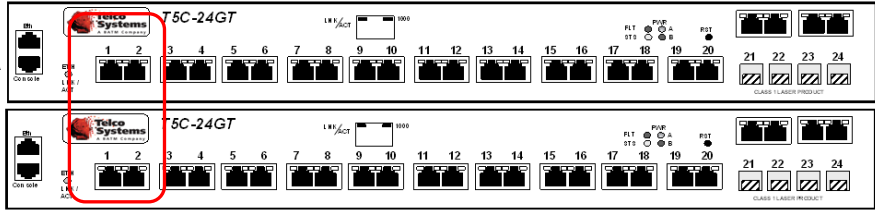
## Procedure 9: Switch Configuration

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|------------------------------|--|---|
|                              |  |  <pre>Main Menu Maintenance Diagnostics Server Configuration Network Configuration Remote Consoles Security Exit</pre>  |
| 32. <input type="checkbox"/> | <b>MPS B:</b> Navigate to the Configure Switch Menu. | On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].<br> <pre>Network Configuration Menu Network Interfaces SNMP Configuration Configure Network Routing Network Bridges Iptables Resolv IPSEC Configuration Stunnel Modify Hosts File Configure Switch Exit</pre> |
| 33. <input type="checkbox"/> | <b>MPS B:</b> Select Switch1D.                       | On the Select Switch Menu, select <b>Switch1D – Lower Switch in Frame 1</b> and press [ENTER].<br> <pre>Select Switch Menu switch1A - Upper Switch in Frame 1 switch1B - Second Switch in Frame 1 switch1C - Third Switch in Frame 1 switch1D - Lower Switch in Frame 1 All Switches Exit</pre>   |

## Procedure 9: Switch Configuration

|   |   |   |
|---|---|---|
| <p>34.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Confirm Switch 1D Configuration.</p> | <p>Select <b>Yes</b> and press <b>[ENTER]</b> to configure Switch 1D.</p>   |
| <p>35.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Switch Configuration Screen.</p>     | <p>Configuring the switch takes about 10 minutes, once completed press any key to continue and then click Exit.</p>  |

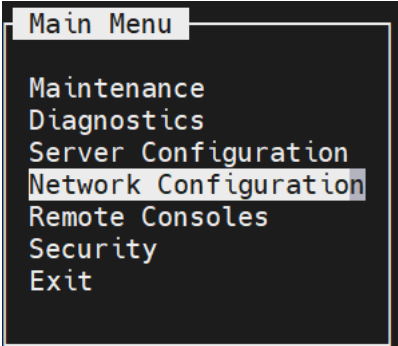
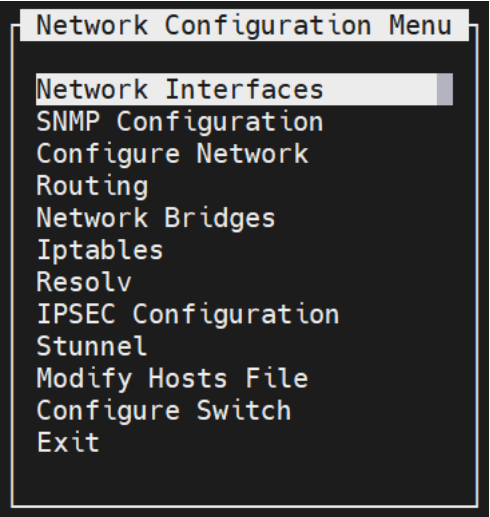
## Procedure 9: Switch Configuration

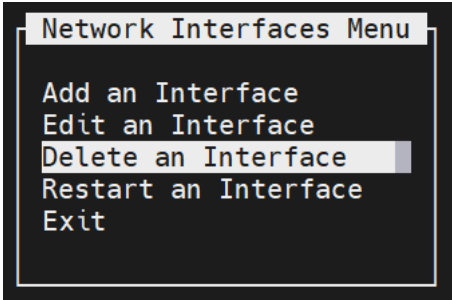
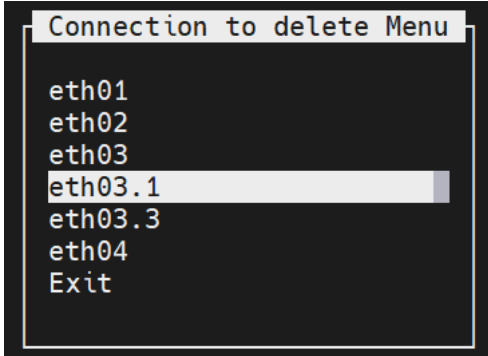
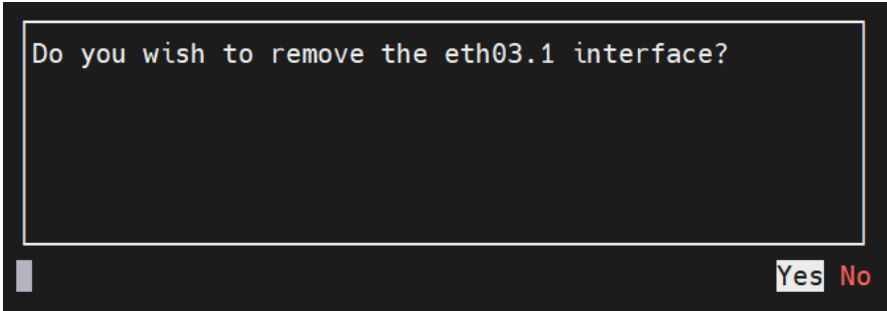
|                                     |  |  |
|-------------------------------------|--|--|
|                                     |  |  <pre> Platform Configuration Utility Copyright (C) 2003, 2024, Oracle and/or its affiliates. All rights reserved. Hostname: Recife-B  Main Menu Successfully enabled on switch switch1D. Reloading switch switch1D with defaults, please standby... Switch switch1D successfully set to default configuration. Successfully started management VLAN on switch1D. Startup configuration created OK. Successfully uploaded startup config for switch1D. Removing config file switch1D.startup-config from /var/lib/tftpboot. Reloading switch switch1D, please standby... Reload of switch switch1D complete. Switch switch1D successfully configured.  Forward Backward Top Bottom Exit  Use arrow keys to move between options   &lt;Enter&gt; selects         </pre> |
| <p>36. <input type="checkbox"/></p> | <p><b>MPS B:</b> Exit out of platcfg.</p>  | <p>Select Exit and press [ENTER] to return to the Network Configuration Menu.<br/>                 Select Exit and press [ENTER] to return to the Main Menu.<br/>                 Select Exit and press [ENTER] to exit out of platcfg.</p>  |
| <p>37. <input type="checkbox"/></p> | <p>Connect the cross-over cable from <b>Port 2 of Switch1A</b> to <b>Port 2 of Switch1B</b>.</p> |   |
| <p>38. <input type="checkbox"/></p> | <p>Procedure complete.</p>   | <p>Procedure is complete.</p>  |
| <p>39. <input type="checkbox"/></p> | <p>Note down the timestamp in log.</p>   | <p>Run the following command:<br/> <b>\$ date</b></p>  |

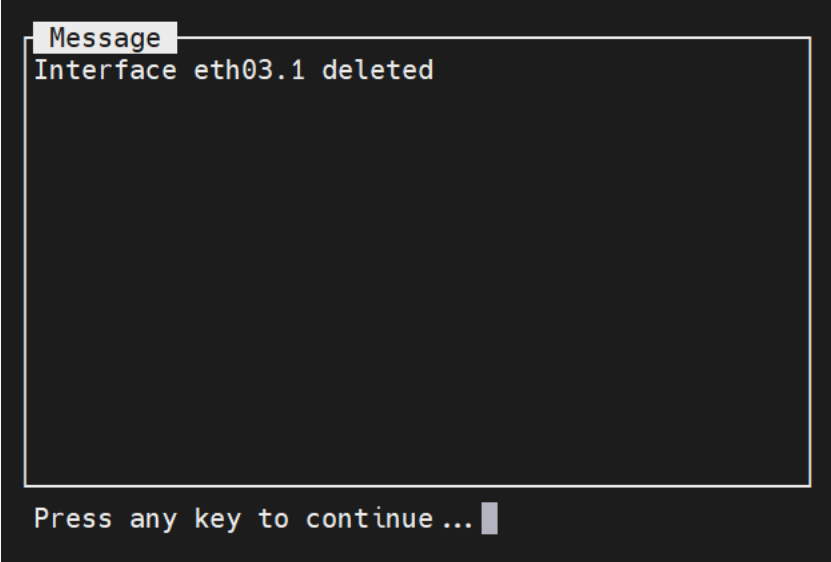
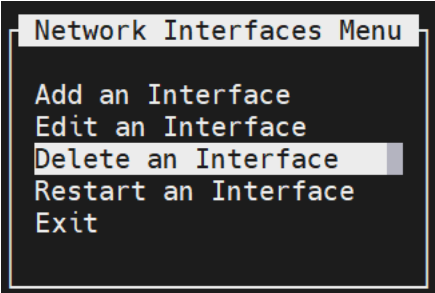
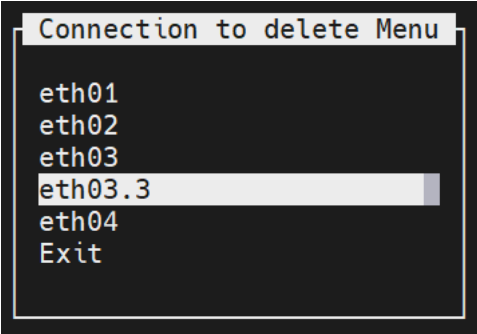
## Procedure 10 Configure Sync Network Redundancy

Note: This procedure will configure the E5-APP-B EPAP cards with the Sync Network Redundancy feature. This will use the Backup Provisioning Network ports, therefore the Backup Provisioning Network feature cannot be used.

## Procedure 10: Procedure to Configure Sync Network Redundancy

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| S<br>T<br>E<br>P<br>#          | <p>This procedure will sync network redundancy in place of backup provisioning network.</p> <p>Note: Estimated time of completion is 90 minutes.</p> |  |
| 1.<br><input type="checkbox"/> | <p><b>MPS A:</b> Log in as “admusr” user to the serial console of E5-APP-B card.</p>   | <pre>[hostname] consolelogin: admusr password: password</pre>  |
| 2.<br><input type="checkbox"/> | <p><b>MPS A:</b> Start platcfg utility.</p>  | <pre>\$ sudo su - platcfg</pre>  |
| 3.<br><input type="checkbox"/> | <p><b>MPS A:</b> Navigate to the Network Configuration Menu.</p>   | <p>On the platcfg <b>Main Menu</b>, select <b>Network Configuration</b> and press [ENTER].</p>  <pre> Main Menu ----- Maintenance Diagnostics Server Configuration Network Configuration Remote Consoles Security Exit </pre>   |
| 4.<br><input type="checkbox"/> | <p><b>MPS A:</b> Navigate to the Network Interfaces Menu.</p>  | <p>On the Network Configuration menu, select <b>Network Interfaces</b> and press [ENTER].</p>  <pre> Network Configuration Menu ----- Network Interfaces SNMP Configuration Configure Network Routing Network Bridges Iptables Resolv IPSEC Configuration Stunnel Modify Hosts File Configure Switch Exit </pre> |

|  |  |   |
|--|--|---|
| <p>5.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Navigate to the Delete an Interface Menu.</p> | <p>On the Network Interfaces Menu, select <b>Delete an Interface</b> and press <b>[ENTER]</b>.</p>  <p>The screenshot shows a terminal window titled "Network Interfaces Menu" with the following options: "Add an Interface", "Edit an Interface", "Delete an Interface" (highlighted with a white bar), "Restart an Interface", and "Exit".</p> |
| <p>6.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Select to delete eth03.1 and press Enter.</p> | <p>On the Connection to delete Menu, select <b>eth03.1</b> and press <b>[ENTER]</b>.</p>  <p>The screenshot shows a terminal window titled "Connection to delete Menu" with the following options: "eth01", "eth02", "eth03", "eth03.1" (highlighted with a white bar), "eth03.3", "eth04", and "Exit".</p>                                      |
| <p>7.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Confirm eth03.1 interface deletion.</p>       | <p>Select <b>Yes</b> and press <b>[ENTER]</b> to delete the eth03.1 interface.</p>  <p>The screenshot shows a terminal window with the text "Do you wish to remove the eth03.1 interface?" and a cursor at the bottom left. At the bottom right, the words "Yes" and "No" are displayed, with "Yes" highlighted by a white bar.</p>             |

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|                                    |  |    |
| <p>8. <input type="checkbox"/></p> | <p><b>MPS A:</b> Press any key to continue.</p> <p>Navigate to the Delete an Interface Menu.</p> | <p>On the Network Interfaces Menu, select <b>Delete an Interface</b> and press <b>[ENTER]</b>.</p>  |
| <p>9. <input type="checkbox"/></p> | <p><b>MPS A:</b> Select to delete eth03.3 and press Enter.</p>                                   | <p>On the Connection to delete Menu, select <b>eth03.3</b> and press <b>[ENTER]</b>.</p>           |

|   |   |   |
|---|---|---|
| <p>10.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Confirm eth03.3 interface deletion.</p>                | <p>Select <b>Yes</b> and press <b>[ENTER]</b> to delete the eth03.3 interface.</p>   |
| <p>11.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Press any key to continue and exit out of platcfg.</p> | <p>Select Exit and press <b>[ENTER]</b> to return to the Network Configuration Menu.</p> <p>Select Exit and press <b>[ENTER]</b> to return to the Main Menu.</p> <p>Select Exit and press <b>[ENTER]</b> to exit out of platcfg.</p>                      |
| <p>12.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Verify that eth03.1 and eth03.3 are deleted.</p>       | <pre>\$ sudo netAdm show eth01 eth02 eth03 eth04</pre> <p>The interfaces eth03.1 and eth03.3 should not be listed.</p>  |

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| 13.<br><input type="checkbox"/> | <b>MPS A:</b> Take the backup of original net.conf.                               | <pre>\$ sudo cp /usr/TKLC/plat/etc/net.conf /usr/TKLC/plat/etc/net.conf_orig</pre>   |
| 14.<br><input type="checkbox"/> | <b>MPS A:</b> Replace the network configuration file for sync network redundancy. | <pre>\$ sudo cp /usr/TKLC/plat/etc/net.sync.conf /usr/TKLC/plat/etc/net.conf</pre><br>cp: overwrite '/usr/TKLC/plat/etc/net.conf'? y   |
| 15.<br><input type="checkbox"/> | <b>MPS A A:</b> Take the backup of original vlan.conf.                            | <pre>\$ sudo cp /usr/TKLC/plat/etc/vlan.conf /usr/TKLC/plat/etc/vlan.conf_orig</pre>   |
| 16.<br><input type="checkbox"/> | <b>MPS A:</b> Replace the vlan configuration file for sync network redundancy.    | <p><u>E5-APP-B Card:</u></p> <p>Single Pair of Switch(18 SM Cards):<br/><b>vlan.sync.single_pair_switch.e5appb.conf</b></p> <p>(Ports 7 to 24 on switch 1A and ports 5 to 24 on switch 1B can be used for SM card connectivity)</p> <p>Two Pair of switches (40 SM Cards): <b>vlan.sync.e5appb.conf</b></p> <p>(Ports 7 to 22 on switch 1A and ports 5 to 22 on switch 1B can be used for SM card connectivity, no change for switch 1C and 1D)</p> <p>For e.g., on T1200 server for Single pair of switches:</p> <pre>\$ sudo cp /usr/TKLC/plat/etc/vlan.sync.single_pair_switch.t1200.conf /usr/TKLC/plat/etc/vlan.conf</pre><br>cp: overwrite '/usr/TKLC/plat/etc/vlan.conf'? y |
| 17.<br><input type="checkbox"/> | <b>MPS A:</b> Reconfigure the network interfaces.                                 | <pre>\$ sudo netAdm init</pre> <p>Interface bond0 added<br/>Interface eth01 added<br/>Interface eth02 added<br/>Interface bond0.3 added<br/>Interface eth03 added<br/>Interface eth04 added<br/>Interface bond0.1 added<br/>Successfully configured network</p>  |
| 18.<br><input type="checkbox"/> | <b>MPS A:</b> Restart network service.  | <pre>\$ sudo systemctl restart network</pre>   |
| 19.<br><input type="checkbox"/> | <b>MPS B</b>  | Repeat all the above steps on the MPS B.   |

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| 20.<br><input type="checkbox"/> | <b>Network Connectivity</b>  | Connect eth04 on MPS A to port 5 on Switch 1A and connect eth04 on MPS B to port 6 on Switch 1A.   |
| 21.<br><input type="checkbox"/> | Configure Switch 1B first and then Switch 1A using 0.  | Perform <a href="#">Procedure 9</a> – Switch1B and Switch1A Configuration to configure Switch1B and then Switch1A.   |
| 22.<br><input type="checkbox"/> | <b>MPS A:</b> Verify that ping mate is working.<br><br>Also ensure that the sync redundancy is working fine by turning off one switch and running ping mate. | <b>\$ ping -c 4 mate</b><br>PING mate (192.168.2.100) 56(84) bytes of data.<br>64 bytes from mate (192.168.2.100): icmp_seq=1 ttl=64 time=0.189 ms<br>64 bytes from mate (192.168.2.100): icmp_seq=2 ttl=64 time=0.188 ms<br>64 bytes from mate (192.168.2.100): icmp_seq=3 ttl=64 time=0.166 ms<br>64 bytes from mate (192.168.2.100): icmp_seq=4 ttl=64 time=0.143 ms<br><br>--- mate ping statistics ---<br>4 packets transmitted, 4 received, 0% packet loss, time 3001ms<br>rtt min/avg/max/mdev = 0.143/0.171/0.189/0.022 ms |
| 23.<br><input type="checkbox"/> | <b>MPS A:</b> Reconfigure EPAP using epapconfig menu if the configuration was done before configuring sync network redundancy.                               | <b>\$ su - epapconfig</b><br>Please follow the instructions written in 0.  |
| 24.<br><input type="checkbox"/> | Procedure complete.  | Procedure is complete.   |
| 25.<br><input type="checkbox"/> | Note down the timestamp in log.  | Run the following command:<br><b>\$ date</b>   |

## Procedure 11 Configuring the application

### Procedure 11: Configuring the Application

|                                  |   |
|----------------------------------|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure configures the application on the server.  |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.                                    |

## Procedure 11: Configuring the Application

**NOTE: This procedure configures the application in the IPv4 configuration. To configure the application in the IPv6 configuration, refer to [6].**

|                                |  |   |
|--------------------------------|--|---|
| 1.<br><input type="checkbox"/> | <b>MPS A:</b> Log on Server A.   | <code>[hostname] consolelogin: admusr<br/>password: <i>password</i></code>  |
| 2.<br><input type="checkbox"/> | <b>MPS A:</b> Switch user to epapconfig.   | <code>\$ sudo su - epapconfig</code><br><br>warning: smartmatch is experimental at<br>/usr/TKLC/plat/lib/Security/User.pm line 904.   |
| 3.<br><input type="checkbox"/> | <b>MPS A:</b> A note of caution appears. Evaluate the conditions listed. When all the conditions are satisfied, press Return to continue.    | Caution: This is the first login of the text user interface. Please review the following checklist before continuing. Failure to enter complete and accurate information at this time will have unpredictable results.<br><br><ol style="list-style-type: none"> <li>1. The mate MPS servers (MPS A and MPS B) must be powered on.</li> <li>2. "Initial Platform Manufacture" for the mate MPS servers must be complete.</li> <li>3. The sync network between the mate MPS servers must be operational.</li> <li>4. You must have the correct password for the epapdev user on the mate MPS server.</li> <li>5. You must be prepared to designate this MPS as provisionable or non-provisionable.</li> </ol><br>Press return to continue... |
| 4.<br><input type="checkbox"/> | <b>MPS A:</b> Upon pressing Return you can now abort or proceed with the initial configuration. To continue with the configuration, enter Y. | Are you sure you wish to continue? [N]:Y  |

## Procedure 11: Configuring the Application

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|------------------------------------|---|---|
| <p>5. <input type="checkbox"/></p> | <p><b>MPS A:</b><br/> <b>For Mixed EPAP or Non-Provisionable EPAP:</b> You are prompted for the <b>epapdev</b>, <b>root</b> and <b>admusr</b> user password on the mate MPS server in order to confirm the secure shell keys are successfully exchanged. The example shows the output generated when the correct password is entered, the secure shell keys are successfully exchanged, and the UI database is set up on <b>MPS A</b> and <b>MPS B</b> at this site.<br/> Type <b>Y</b> if this site is <b>Provisionable</b>(either mixed-EPAP or PDBonly), <b>otherwise</b> Type <b>N</b>.</p> <p><b>For Standalone PDB:</b><br/> You are prompted for the <b>System Number</b> and <b>Network Configuration Type</b>.</p> | <pre> Password of epapdev: ssh is working correctly. Password of root: ssh is working correctly. Password of admusr: ssh is working correctly. Password of root: ssh is working correctly. Building the initial database on side A.   Stopping local slave   Stopping remote slave EuiDB already exists. FIPS integrity verification test failed.   Starting local slave   Starting remote slave  The provisioning architecture of the EPAP software allows for exactly 2 customer provisionable sites.  Additional sites that are to receive the data provisioned to the provisionable sites should answer 'N' here.  If there are only 2 mated sites, it is safe to answer 'Y' here.  Is this site provisionable? [Y]: Y  Caution: This is the first login of the text user interface.  Press return to continue... Are you sure you wish to continue? [N]: Y Building the initial database on side A.   Stopping local slave No preexisting EuiDB database was detected. Set EPAP System Number: E312345678 Enter the Network Configuration Type (1 for Single, 2 for Segmented): 2 </pre> |
| <p>6. <input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 2, Configure Network Interfaces Menu.</p>  | <p><b>EPAP Configuration Menu for standalone PDB:</b></p>   |

## Procedure 11: Configuring the Application

|  |  |  |  |
|--|--|--|--|
|  |  | <pre>/-----EPAP Configuration Menu-----\<br/>/<br/>  1   Display Configuration  <br/> ----- <br/>  2   Configure Network Interfaces Menu  <br/> ----- <br/>  3   Set Time Zone  <br/> ----- <br/>  4   Exchange Secure Shell Keys  <br/> ----- <br/>  5   Change Password  <br/> ----- <br/>  6   Platform Menu  <br/> ----- <br/>  7   Configure NTP Server  <br/> ----- <br/>  8   PDB Configuration Menu  <br/> ----- <br/>  9   Security  <br/> ----- <br/>  10   SNMP Configuration  <br/> ----- <br/>  11   Configure Alarm Feed  <br/> ----- <br/>  12   Configure Query Server  <br/> ----- <br/>  13   Configure Query Server Alarm Feed  <br/> ----- <br/>  14   Configure SNMP Agent Community  <br/> ----- <br/>  15   DB Architecture Menu  <br/> ----- <br/>  e   Exit  <br/>\<br/><br/>EPAP Configuration Menu for NON-Prov EPAP:</pre> |  |
|--|--|--|--|

**Procedure 11: Configuring the Application**

|  |   |  |
|--|---|--|
|  |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration  -----    2   Configure Network Interfaces Menu  -----    3   Set Time Zone  -----    4   Exchange Secure Shell Keys  -----    5   Change Password  -----    6   Platform Menu  -----    7   Configure NTP Server  -----    8   PDB Configuration Menu  -----    9   Security  -----    10   SNMP Configuration  -----    11   Configure Alarm Feed  -----    12   Configure SNMP Agent Community  -----    13   Mate Disaster Recovery  -----    14   DB Architecture Menu  -----    e   Exit \-----\ </pre> <p>Enter Choice: 2</p> |
| <p>7.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The Configure Network Interfaces Menu is displayed. Select choice 1, Configure Provisioning Network.</p> | <p><b>Configuration Menu for Mixed EPAP and Non-Provisionable EPAP:</b></p> <pre> /-----Configure Network Interfaces Menu-----\ /-----\   1   Configure Provisioning Network  -----    2   Configure Sync Network  -----    3   Configure DSM Network  -----    4   Configure Backup Provisioning Network  -----    5   Configure Static NAT Addresses  -----    6   Configure Provisioning VIP Addresses  -----  </pre>   |

## Procedure 11: Configuring the Application

|                                    |  |  |
|------------------------------------|--|--|
|                                    |  | <pre> e   Exit \-----/  Enter Choice: 1  <b>Configuration Menu for Standalone PDB:</b>  /-----Configure Network Interfaces Menu-----\   1   Configure Provisioning Network   2   Configure Backup Provisioning Network   3   Configure Static NAT Addresses   e   Exit \-----/  Enter Choice: 1 </pre>   |
| <p>8. <input type="checkbox"/></p> | <p><b>MPS A:</b> The submenu for configuring communications networks and other information is displayed.</p> <p>Note: Enter choice "1" for IPv4 configuration. Otherwise, enter choice "2" for IPv6 configuration.</p> | <pre> /-----Configure Provisioning Network Menu-----\   1   IPv4 Configuration   2   IPv6 Configuration   e   Exit \-----/  Enter Choice: █ </pre> <p>Example output for Mixed EPAP and Non-Provisionable EPAP in IPv4 configuration:</p> <pre> Enter Choice: 1  Verifying connectivity with mate... EPAP A provisioning network IP Address: 10.75.141.47 EPAP B provisioning network IP Address: 10.75.141.48 EPAP provisioning network netmask: 255.255.255.128 EPAP provisioning network default router: 10.75.141.1 </pre> <p>Example output Standalone PDB in IPv4 configuration:</p> <pre> EPAP A provisioning network IP Address:10.75.141.47 EPAP provisioning network netmask:255.255.255.128 EPAP provisioning network default router:10.75.141.1 </pre> |
| <p>9. <input type="checkbox"/></p> | <p><b>MPS A:</b> The Configure Network Interfaces menu is displayed. Select choice e, Exit.</p>  | <p>Configuration Menu for Mixed EPAP and Non-Provisionable EPAP:</p> <pre> /-----Configure Network Interfaces Menu-----\   1   Configure Provisioning Network   2   Configure Sync Network   3   Configure DSM Network   4   Configure Backup Provisioning Network \-----/ </pre>  |

**Procedure 11: Configuring the Application**

|   |  |   |
|---|--|---|
|   |  | <pre> 5   Configure Static NAT Addresses ----- 6   Configure Provisioning VIP Addresses ----- e   Exit \-----/  Enter Choice: e  Configuration Menu for Standalone PDB:  /-----Configure Network Interfaces Menu-----\ /-----\ 1   Configure Provisioning Network ----- 2   Configure Backup Provisioning Network ----- 3   Configure Static NAT Addresses ----- e   Exit \-----/  Enter Choice: e </pre> |
| <p>10.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 3, Set Time Zone.</p> | <p><b>EPAP Configuration Menu for Non-prov EPAP:</b></p>  |

**Procedure 11: Configuring the Application**

|   |   |   |
|---|---|---|
|   |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration  -----    2   Configure Network Interfaces Menu  -----    3   Set Time Zone  -----    4   Exchange Secure Shell Keys  -----    5   Change Password  -----    6   Platform Menu  -----    7   Configure NTP Server  -----    8   PDB Configuration Menu  -----    9   Security  -----    10   SNMP Configuration  -----    11   Configure Alarm Feed  -----    12   Configure SNMP Agent Community  -----    13   Mate Disaster Recovery  -----    14   DB Architecture Menu  -----    e   Exit \-----/ </pre> <p>Enter Choice:3</p> |
| <p>11.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> An important Caution statement is displayed. After noting the caution, press Return to continue.</p> | <p>Caution: This action requires a reboot of the affected MPS servers to activate the change. Operation of the EPAP software before the MPS servers are rebooted may have unpredictable consequences.</p> <p>Press return to continue...&lt;return&gt;</p> <p>Are you sure you wish to change the timezone for MPS A and B? [N]: Y</p>  |

**Procedure 11: Configuring the Application**

|   |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
|---|---|--|-----------------------|---------------|--|---------------|--|--|-----------------|----------------------|--|-----------------|--|--|--------------------|--------------------|--|----------------|--|--|----------------------|---------------|-------------|------------------|-------------|-------------|-----------------|----------------|--------------|--------------|--|--|----------------|-----------------|--|---------------------|--|--|----------------|--------------|--|-------------------|--|--|--------------------|---------|-----------|-----------------------------------|--|--|-------------------------------|--|--|-----|---------|----|---------|-----|---------|--------|----------|-----|-----|-----------|--------|------|-----|--------|------|-------------|----------|----------|--------|---------|--------------|------------|---------|---------|---------|--------------|---------|-----|-------|
|   | <p>You are prompted for confirmation on setting the time zone for the MPS A and MPS B at this site for Mixed EPAP or Non-provisionable EPAP. For Standalone PDB, time zone for MPS A is prompted only. Enter y to confirm the change. (Pressing Return accepts the default of 'N' (no), cancels the action and you are returned to the EPAP Configuration Menu). Type Y to set the time zone.</p> |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| <p>12.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The following prompt is displayed. If the time zone is known, it can be entered at the prompt. If the exact time zone value is not known, press Return, and a list of the valid names is displayed.</p>  | <p>Enter a time zone:</p>  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| <p>13.<br/><input type="checkbox"/></p> | <p>If an incorrect time zone is entered or if only the Return key is pressed, a list of all available time zone values is displayed.</p> <p>Note: The time zone change does not take effect until the next time the MPS is rebooted.</p>  | <p>Valid time zone files are:</p> <table border="0"> <tr> <td>Australia/Broken_Hill</td> <td>Australia/LHI</td> <td></td> </tr> <tr> <td>Australia/NSW</td> <td></td> <td></td> </tr> <tr> <td>Australia/North</td> <td>Australia/Queensland</td> <td></td> </tr> <tr> <td>Australia/South</td> <td></td> <td></td> </tr> <tr> <td>Australia/Tasmania</td> <td>Australia/Victoria</td> <td></td> </tr> <tr> <td>Australia/west</td> <td></td> <td></td> </tr> <tr> <td>Australia/Yancowinna</td> <td>Australia/ACT</td> <td>Brazil/Acre</td> </tr> <tr> <td>Brazil/DeNoronha</td> <td>Brazil/East</td> <td>Brazil/West</td> </tr> <tr> <td>Canada/Atlantic</td> <td>Canada/Central</td> <td>Canada/East-</td> </tr> <tr> <td>Saskatchewan</td> <td></td> <td></td> </tr> <tr> <td>Canada/Eastern</td> <td>Canada/Mountain</td> <td></td> </tr> <tr> <td>Canada/Newfoundland</td> <td></td> <td></td> </tr> <tr> <td>Canada/Pacific</td> <td>Canada/Yukon</td> <td></td> </tr> <tr> <td>Chile/Continental</td> <td></td> <td></td> </tr> <tr> <td>Chile/EasterIsland</td> <td>Etc/GMT</td> <td>Etc/GMT+1</td> </tr> <tr> <td colspan="3">-----Sample Output continues-----</td> </tr> <tr> <td colspan="3">-----End of output below-----</td> </tr> <tr> <td>MST</td> <td>MST7MDT</td> <td>NZ</td> </tr> <tr> <td>NZ-CHAT</td> <td>PRC</td> <td>PST8PDT</td> </tr> <tr> <td>Poland</td> <td>Portugal</td> <td>ROC</td> </tr> <tr> <td>ROK</td> <td>Singapore</td> <td>Turkey</td> </tr> <tr> <td>W-SU</td> <td>WET</td> <td>africa</td> </tr> <tr> <td>asia</td> <td>australasia</td> <td>backward</td> </tr> <tr> <td>etcetera</td> <td>europa</td> <td>factory</td> </tr> <tr> <td>northamerica</td> <td>pacificnew</td> <td>solar87</td> </tr> <tr> <td>solar88</td> <td>solar89</td> <td>southamerica</td> </tr> <tr> <td>GB-Eire</td> <td>GMT</td> <td>GMT+0</td> </tr> </table> | Australia/Broken_Hill | Australia/LHI |  | Australia/NSW |  |  | Australia/North | Australia/Queensland |  | Australia/South |  |  | Australia/Tasmania | Australia/Victoria |  | Australia/west |  |  | Australia/Yancowinna | Australia/ACT | Brazil/Acre | Brazil/DeNoronha | Brazil/East | Brazil/West | Canada/Atlantic | Canada/Central | Canada/East- | Saskatchewan |  |  | Canada/Eastern | Canada/Mountain |  | Canada/Newfoundland |  |  | Canada/Pacific | Canada/Yukon |  | Chile/Continental |  |  | Chile/EasterIsland | Etc/GMT | Etc/GMT+1 | -----Sample Output continues----- |  |  | -----End of output below----- |  |  | MST | MST7MDT | NZ | NZ-CHAT | PRC | PST8PDT | Poland | Portugal | ROC | ROK | Singapore | Turkey | W-SU | WET | africa | asia | australasia | backward | etcetera | europa | factory | northamerica | pacificnew | solar87 | solar88 | solar89 | southamerica | GB-Eire | GMT | GMT+0 |
| Australia/Broken_Hill                   | Australia/LHI   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Australia/NSW                           |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Australia/North                         | Australia/Queensland  |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Australia/South                         |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Australia/Tasmania                      | Australia/Victoria  |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Australia/west                          |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Australia/Yancowinna                    | Australia/ACT   | Brazil/Acre  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Brazil/DeNoronha                        | Brazil/East   | Brazil/West  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Canada/Atlantic                         | Canada/Central  | Canada/East-   |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Saskatchewan                            |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Canada/Eastern                          | Canada/Mountain   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Canada/Newfoundland                     |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Canada/Pacific                          | Canada/Yukon  |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Chile/Continental                       |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Chile/EasterIsland                      | Etc/GMT   | Etc/GMT+1  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| -----Sample Output continues-----       |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| -----End of output below-----           |   |  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| MST                                     | MST7MDT   | NZ   |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| NZ-CHAT                                 | PRC   | PST8PDT  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| Poland                                  | Portugal  | ROC  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| ROK                                     | Singapore   | Turkey   |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| W-SU                                    | WET   | africa   |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| asia                                    | australasia   | backward   |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| etcetera                                | europa  | factory  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| northamerica                            | pacificnew  | solar87  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| solar88                                 | solar89   | southamerica   |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |
| GB-Eire                                 | GMT   | GMT+0  |                       |               |  |               |  |  |                 |                      |  |                 |  |  |                    |                    |  |                |  |  |                      |               |             |                  |             |             |                 |                |              |              |  |  |                |                 |  |                     |  |  |                |              |  |                   |  |  |                    |         |           |                                   |  |  |                               |  |  |     |         |    |         |     |         |        |          |     |     |           |        |      |     |        |      |             |          |          |        |         |              |            |         |         |         |              |         |     |       |

**Procedure 11: Configuring the Application**

|                                     |   |   |
|-------------------------------------|---|---|
|                                     |   | <pre> GMT+1          GMT+10          GMT+11 GMT+12         GMT+13          GMT+2 GMT+3          GMT+4           GMT+5 GMT+6          GMT+7           GMT+8 GMT+9          GMT-0           GMT-1 GMT-10         GMT-11          GMT-12 GMT-2          GMT-3           GMT-4 GMT-5          GMT-6           GMT-7 GMT-8          GMT-9           Greenwich Jamaica        Navajo           UCT UTC            Universal       Zulu  Enter a time zone file (relative to /usr/share/lib/zoneinfo): US/Eastern </pre>   |
| <p>14. <input type="checkbox"/></p> | <p><b>SERVER A: Enter choice 7, Configure NTP Server Menu.</b></p> <p><b>NOTE: If an NTP server does not need to be added at this time, you can skip all steps related to option 7 Configure NTP Server Menu, and proceed to the PDB Configuration Menu at step 20.</b></p> | <p><b>EPAP Configuration Menu for Non-prov EPAP:</b></p> <pre> /-----EPAP Configuration Menu-----\ /-----\    1    Display Configuration                 -----     2    Configure Network Interfaces Menu     -----     3    Set Time Zone                         -----     4    Exchange Secure Shell Keys           -----     5    Change Password                       -----     6    Platform Menu                         -----     7    Configure NTP Server                   -----     8    PDB Configuration Menu               -----     9    Security                               -----    10    SNMP Configuration                     -----    11    Configure Alarm Feed                    -----    12    Configure SNMP Agent Community        -----    13    Mate Disaster Recovery                 -----    14    DB Architecture Menu                  -----     e    Exit                                 \-----/  Enter Choice: 7 </pre> |

## Procedure 11: Configuring the Application

|   |   |   |
|---|---|---|
| <p>15.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configure NTP Server Menu is displayed. Enter choice 2, Add External NTP Server.</p> <p>Note: Enter choice "1" to configure IPv4 NTP server. Otherwise, enter choice "2" to configure IPv6 NTP server.</p>  | <pre> /-----EPAP Configure NTP Server Menu-----\  1   Display External NTP Server  2   Add External NTP Server  3   Remove External NTP Server  e   Exit \-----/  Enter Choice: 2  /-----Add External NTP Server Menu-----\  1   IPv4 Configuration  2   IPv6 Configuration  e   Exit \-----/  Enter Choice: █ </pre> |
| <p>16.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> You are prompted to confirm the action of adding a new NTP Server. (Pressing Return would accept the default of 'N' or 'no', and would cancel the action to add an external NTP server.) Type Y and press return.</p> <p><b>NOTE:</b> All NTP Server IP addresses shown are only examples.</p> | <pre> Are you sure you wish to add new NTP Server? [N]: Y Enter the EPAP NTP Server IP Address: &lt;NTP_server_IP_Addr&gt;  External NTP Server [&lt;NTP_server_IP_Addr&gt;] has been added.  Press return to continue...&lt;return&gt; </pre>  |
| <p>17.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configure NTP Server Menu is displayed.</p>   | <pre> /-----EPAP Configure NTP Server Menu-----\  1   Display External NTP Server  2   Add External NTP Server  3   Remove External NTP Server \-----/ </pre>   |

## Procedure 11: Configuring the Application

|                                     |   |   |
|-------------------------------------|---|---|
|                                     | <p>Enter choice 1, Display External NTP Server.</p>   | <pre> e   Exit ----- Enter Choice: 1 </pre>   |
| <p>18. <input type="checkbox"/></p> | <p><b>MPS A:</b> Verify the External NTP Server IP address is correct and press Return.</p> <p><b>NOTE:</b> All NTP Server IP addresses shown are only examples.</p>  | <pre> ntpserver1      &lt;Ipaddress&gt; Press return to continue...&lt;return&gt; </pre>  |
| <p>19. <input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configure NTP Server Menu is displayed. Select choice e, Exit.</p>  | <pre> /-----EPAP Configure NTP Server Menu-----\ 1   Display External NTP Server 2   Add External NTP Server 3   Remove External NTP Server e   Exit ----- Enter Choice: e </pre> |
| <p>20. <input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 8, PDB Configuration Menu.</p> <p><b>Note:</b> Run the step to do PDB Configuration Menu (except step 27) even if the EPAP is to be configured as Non-Provisionable.</p> | <p><b>PDB Configuration Menu for Non-prov EPAP:</b></p>   |

## Procedure 11: Configuring the Application

|  |  |  |  |
|--|--|--|--|
|  |  | <pre>/-----EPAP Configuration Menu-----\<br/>/-----\<br/>  1   Display Configuration  <br/> ----- <br/>  2   Configure Network Interfaces Menu  <br/> ----- <br/>  3   Set Time Zone  <br/> ----- <br/>  4   Exchange Secure Shell Keys  <br/> ----- <br/>  5   Change Password  <br/> ----- <br/>  6   Platform Menu  <br/> ----- <br/>  7   Configure NTP Server  <br/> ----- <br/>  8   PDB Configuration Menu  <br/> ----- <br/>  9   Security  <br/> ----- <br/>  10   SNMP Configuration  <br/> ----- <br/>  11   Configure Alarm Feed  <br/> ----- <br/>  12   Configure SNMP Agent Community  <br/> ----- <br/>  13   Mate Disaster Recovery  <br/> ----- <br/>  14   DB Architecture Menu  <br/> ----- <br/>  e   Exit  <br/> ----- <br/>\-----\<br/><br/>Enter choice: 8</pre> |  |
|--|--|--|--|



## Procedure 11: Configuring the Application

|   |  |   |
|---|--|---|
| <p>22.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The PDB Network Configuration Menu is displayed.</p> <p>Select choice 1.</p>  | <p><b>PDB Network Configuration menu:</b></p> <pre> /-----PDB Network Configuration Menu-\ /-----\   1   IPv4 Configuration  -----    2   IPv6 Configuration  -----    e   Exit \-----\ </pre> <p>Enter Choice: 1</p>   |
| <p>23.<br/><input type="checkbox"/></p> | <p><b>Note: Do not provide the remote PDBA IP address in case user is performing migration.</b></p> <p><b>MPS A:</b> Provide the IP address of the MPS A on EAGLE A and the IP address for the MPS A on EAGLE B where the remote PDBA database is to reside. Enter the password for MPS A on EAGLE B. If configuration of the PDB network is successful, the output confirms the secure shell keys are successfully exchanged, as shown in the output for Provisionable(mixed-EPAP and PDBonly) MPSS</p> <p>Note: If the default values shown are correct press return to accept them. Otherwise, enter the values and press Return.</p> | <p>Following is the output on Mixed EPAP.</p> <pre> Verifying connectivity with mate... This MPS is configured to be provisionable. The EPAP local PDBA IPv4 address is currently set to &lt;IP&gt;. The EPAP local PDBA IPv6 address is currently not configured. The EPAP local PDBA IPv4 Address is &lt;IP&gt;. EPAP remote PDBA IP Address [0.0.0.0]: &lt;A IP Address&gt; EPAP remote PDBA B machine IP Address [0.0.0.0]: &lt;B IP Address&gt; The server does not know the &lt;A IP Address&gt;. It will only exchange host keys for the name given. Password of epapdev: &lt;password&gt; </pre> <p>Following is the output on Non-Provisionable EPAP.</p> <pre> Verifying connectivity with mate... This MPS is configured to be non-provisionable. You will be prompted for both of the remote PDBA addresses. Order does not matter.  Enter one of the two PDBA IP addresses [0.0.0.0]: &lt;IP Address&gt; Enter the other of the two PDBA IP addresses [0.0.0.0]: &lt;IP Address&gt; </pre> <p>Following is the output on Standalone PDB.</p> <pre> This MPS is configured to be provisionable. The EPAP local PDBA IPv4 address is currently set to &lt;IP&gt; The EPAP local PDBA IPv6 address is currently not set. The EPAP local PDBA IPv4 Address is &lt;IP&gt;. </pre> |

## Procedure 11: Configuring the Application

|   |  |  |
|---|--|--|
|   | <p><b>In case of Non-Provisionable EPAP, provide the IP address of Active and Standby PDBA.</b></p>          | <p>EPAP remote PDBA IP Address [0.0.0.0]:</p>  |
| <p>24.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Press Return to return to the Configure PDB Menu.<br/>Enter choice 2, RTDB Homing Menu.</p> | <p>Skip this step if EPAP configured as Standalone PDB.</p> <pre> /-----Configure PDB Menu-----\ /-----\   1   Configure PDB Network    -----    2   RTDB Homing Menu    -----    3   Change MPS Provisionable State    -----    4   Create PDB    -----    5   Change Auto DB Recovery State    -----    6   Change PDBA Proxy State    -----    e   Exit   \-----/ </pre> <p>Enter Choice: 2</p>   |
| <p>25.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The RTDB Homing Menu is displayed. Enter choice 3, Configure Standby RTDB Homing.</p>       | <p>Skip this step for Standalone PDB.</p> <p><b>For Non-Prov Nodes:</b></p> <pre> /-----RTDB Homing Menu-----\ /-----\   1   Configure Specific RTDB Homing    -----    2   Configure Active RTDB Homing    -----    3   Configure Standby RTDB Homing    -----    e   Exit   \-----/ </pre> <p>Enter Choice: 2</p> <p>In the event that the Active PDB is unavailable, should updates be allowed to the RTDBs from the Standby PDBA? [Y]: N</p> <p>Caution: If this option is selected, the Standby PDB will not provision the RTDBs at this site in the event that the Active PDB is not available.</p> <p>Are you sure you want to disallow updates to the RTDBs from the Standby PDB? [N]: Y</p> <p>The RTDBs will home to the Active and will not allow updates from the Standby PDB.</p> <p>Press return to continue...^<input type="checkbox"/></p> |

**Procedure 11: Configuring the Application**

|                                     |   |  |
|-------------------------------------|---|--|
|                                     |   | <p><b>For Mixed EPAP :</b></p> <p>MPS Side A: hostname: Floater05 hostid: 4b0a6e8d<br/> Platform Version: 7.0.1-8.6.0.0.0_110.6.0<br/> Software Version: EPAP 170.0.12-17.0.0.0.0_170.12.0<br/> Wed Mar 29 05:59:19 EDT 2023</p> <pre> /-----RTDB Homing Menu-----\ /-----\   1   Configure Specific RTDB Homing    --- -----    2   Configure Active RTDB Homing     --- -----    3   Configure Standby RTDB Homing    --- -----    e   Exit                             \-----/ </pre> <p>Enter Choice: 1</p> <p>EPAP software and PDBA are running. Stop them? [N]: Y</p> <p>EPAP software is running on mate MPS. Stop it? [N]: Y<br/> Since this is an unpaired EPAP, specific homing will be directed to the local PDB.</p> <p>The RTDB Homing policy is set to 'specific' and will prefer updates from 10.75.141.110</p> <p>Press return to continue...</p> |
| <p>26. <input type="checkbox"/></p> | <p><b>MPS A:</b> The RTDB Homing Menu is displayed. Enter <b>e</b> to exit.</p> | <p>Skip this step for Standalone PDB.</p> <pre> /-----RTDB Homing Menu-----\   1   Configure Specific RTDB Homing    --- -----    2   Configure Active RTDB Homing     --- -----    3   Configure Standby RTDB Homing    --- -----    e   Exit                             \-----/ </pre> <p>Enter Choice: e</p>   |

## Procedure 11: Configuring the Application

27.



**MPS A:** Enter choice 3.  
Create PDB.

**Note:**

Stop the EPAP software by answering 'Y', if you get the message to stop it.

**Note:**

While creating PDB database using the Create PDB option of the EPAP Configuration Menu, ensure that the value for remote PDB IP is set to 0.0.0.0.

**Note:** Perform this step only for the Provisionable EPAP (Mixed EPAP or Standalone PDB). Skip this step if the EPAP is configured as Non-Provisionable.

The Menu for Mixed EPAP.

```
/-----Configure PDB Menu-----\  
/  
| 1 | Configure PDB Network  
|-----|  
| 2 | RTDB Homing Menu  
|-----|  
| 3 | Create PDB  
|-----|  
| 4 | Change Auto DB Recovery State  
|-----|  
| 5 | Change PDBA Proxy State  
|-----|  
| e | Exit  
\  
/-----|
```

Enter Choice:

Enter Choice: 3

The Menu for Standalone PDB(for default DB Architecture: COMPACT):

```
/-----Configure PDB Menu-----\  
/  
| 1 | Configure PDB Network  
|-----|  
| 2 | Create PDB  
|-----|  
| 3 | Change Auto DB Recovery State  
|-----|  
| e | Exit  
\  
/-----|
```

Enter Choice: 2

```
localIp = 10.75.141.47  
localName=Natal-47A  
remoteIp = 0.0.0.0  
There is no remote PDB  
  
remoteBip = 0.0.0.0  
There is no remote B PDB  
mysqld is alive  
Local PDB database does not exist.  
Creating the local database  
~~ /etc/init.d/Pdba stop ~~  
PDBA process is already stopped.  
Removing local pdba status file.
```

**Procedure 11: Configuring the Application**

|                                     |  |  |
|-------------------------------------|--|--|
|                                     |  | Creating the remote database   |
| <p>28. <input type="checkbox"/></p> | <p><b>NOTE:</b><br/>The example output to the right has been truncated for brevity.</p>  | <p><b>TRUNCATED OUTPUT</b></p> <pre>MyISAM file: /var/TKLC/epap/db/pdb/stats/pdbaStats.MYI is already checked Waiting for mysqlpdb to start done Removing local pdba status file. Removing remote pdba status file.</pre>  |
| <p>29. <input type="checkbox"/></p> | <p><b>MPS A:</b> The Configure PDB Menu is displayed. Enter choice <b>e</b>, Exit. The Configure PDB Menu is displayed. Enter choice <b>e</b>, Exit.</p> | <p><b>The Configure PDB Menu for Mixed EPAP:</b></p> <pre>/-----Configure PDB Menu-----\   1   Configure PDB Network              2   RTDB Homing Menu                    3   Change MPS Provisionable State      4   Create PDB                           5   Change Auto DB Recovery State       6   Change PDBA Proxy State             e   Exit                               \-----\</pre> <p>Enter Choice: e</p> <p>The Configure PDB Menu for Standalone PDB:</p> <pre>/-----Configure PDB Menu-----\   1   Configure PDB Network              2   Create PDB                           3   Change Auto DB Recovery State       e   Exit                               \-----\</pre> <p>Enter Choice: e</p> |
| <p>30. <input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Enter choice <b>1</b>, Display Configuration.</p>   |  |

**Procedure 11: Configuring the Application**

|                                     |   |   |
|-------------------------------------|---|---|
|                                     |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    10   SNMP Configuration    -----    11   Configure Alarm Feed    -----    12   Configure Query Server    -----    13   Configure Query Server Alarm Feed    -----    14   Configure SNMP Agent Community    -----    15   Mate Disaster Recovery    -----    e   Exit   \-----/ </pre> <p>Enter Choice: 1</p>   |
| <p>31. <input type="checkbox"/></p> | <p><b>MPS A:</b> The configuration information is displayed. Verify that the configuration data displayed is correct.</p> | <p><b>For Mixed EPAP and Non-Provisionable EPAP configured in IPv4 configuration, the configuration data shall look like:</b></p> <pre> EPAP A Provisioning Network IP Address = 10.75.141.55 EPAP A Provisioning Network IP Address v6 = Not configured EPAP B Provisioning Network IP Address = 10.75.141.56 EPAP B Provisioning Network IP Address v6 = Not configured Provisioning Network Netmask = 255.255.255.128 Provisioning Network Prefix = Not configured Provisioning Network Default Router = 10.75.141.1 Provisioning Network Default Router v6 = Not configured EPAP A Backup Prov Network IP Address = Not configured EPAP A Backup Prov Network IP Address v6 = Not configured EPAP B Backup Prov Network IP Address = Not configured EPAP B Backup Prov Network IP Address v6 = Not configured Backup Prov Network Netmask = Not configured </pre> |

## Procedure 11: Configuring the Application

|  |  |                    |
|--|--|--------------------|
|  | Backup Prov Network Prefix v6                                      | = Not configured   |
|  | Backup Prov Network Default Router                                 | = Not configured   |
|  | Backup Prov Network Default Router v6                              | = Not configured   |
|  | EPAP A Sync Network Address  | = 192.168.2.100    |
|  | EPAP B Sync Network Address  | = 192.168.2.200    |
|  | EPAP A Main DSM Network Address                                    | = 192.168.120.100  |
|  | EPAP B Main DSM Network Address                                    | = 192.168.120.200  |
|  | EPAP A Backup DSM Network Address                                  | = 192.168.121.100  |
|  | EPAP B Backup DSM Network Address                                  | = 192.168.121.200  |
|  | EPAP IP Version  | = IPv4             |
|  | EPAP A HTTP Port   | = 80               |
|  | EPAP B HTTP Port   | = 80               |
|  | EPAP A HTTP SuExec Port  | = 8001             |
|  | EPAP B HTTP SuExec Port  | = 8001             |
|  | EPAP A Banner Connection Port                                      | = 8473             |
|  | EPAP B Banner Connection Port                                      | = 8473             |
|  | EPAP A Static NAT Address  | = Not configured   |
|  | EPAP B Static NAT Address  | = Not configured   |
|  | PDBI Port  | = 5873             |
|  | Remote MPS A Static NAT Address                                    | = Not configured   |
|  | Remote MPS A HTTP Port   | = 80               |
|  | Local Provisioning VIP   | = Not configured   |
|  | Remote Provisioning VIP  | = Not configured   |
|  | Local PDBA Address   | = 10.75.141.55     |
|  | Local PDBA Address v6  | =                  |
|  | 0000:0000:0000:0000:0000:0000:0000:0000                            | =                  |
|  | Remote PDBA Address  | = 0.0.0.0          |
|  | Remote PDBA B Address  | = 0.0.0.0          |
|  | Time Zone  | = America/New_York |
|  | PDB Database   | = Exists           |
|  | Preferred PDB  | = 10.75.141.55     |
|  | Allow updates from alternate PDB                                   | = Yes              |
|  | Auto DB Recovery Enabled   | = No               |
|  | PDBA Proxy Enabled   | = No               |
|  | Press return to continue...<return>                                |                    |
|  | <b>For Standalone PDB, the configuration data shall look like:</b> |                    |
|  | EPAP A Provisioning Network IP Address                             | = 10.250.51.130    |
|  | EPAP B Provisioning Network IP Address                             | = Not configured   |
|  | Provisioning Network Netmask                                       | = 255.255.255.128  |
|  | Provisioning Network Prefix  | = Not configured   |
|  | Provisioning Network Default Router                                | = 10.250.51.1      |
|  | Provisioning Network Default Router v6                             | = Not configured   |
|  | EPAP A Backup Prov Network IP Address                              | = Not configured   |
|  | EPAP A Backup Prov Network IP Address v6                           | = Not configured   |
|  | Backup Prov Network Netmask  | = Not configured   |
|  | Backup Prov Network Prefix v6                                      | = Not configured   |
|  | Backup Prov Network Default Router                                 | = Not configured   |
|  | Backup Prov Network Default Router v6                              | = Not configured   |
|  | Network Configuration Type   | = SINGLE           |
|  | EPAP IP Version  | = IPv4             |
|  | EPAP A HTTP Port   | = 80               |
|  | EPAP A HTTP SuExec Port  | = 8001             |
|  | EPAP A Banner Connection Port                                      | = 8473             |
|  | EPAP A Static NAT Address  | = Not configured   |
|  | PDBI Port  | = 5873             |
|  | Remote MPS A Static NAT Address                                    | = Not configured   |
|  | Remote MPS A HTTP Port   | = Not configured   |
|  | Local PDBA Address   | = 10.250.51.130    |
|  | Local PDBA Address v6  | = Not configured   |
|  | Remote PDBA Address  | = 0.0.0.0          |
|  | Time Zone  | = US/Eastern       |
|  | PDB Database   | = Exists           |
|  | Auto DB Recovery Enabled   | = No               |

**Procedure 11: Configuring the Application**

|                                     |   |  |
|-------------------------------------|---|--|
|                                     |   | <p>Press return to continue... &lt;return&gt;</p>  |
| <p>32. <input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configuration Menu is displayed.<br/>Enter choice <b>e</b>, Exit.</p> | <pre> <b>EPAP Configuration Menu for Non-Provisional EPAP:</b> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    10   SNMP Configuration    -----    11   Configure Alarm Feed    -----    12   Configure SNMP Agent Community    -----    13   Mate Disaster Recovery    -----    14   DB Architecture Menu    -----    e   Exit   \-----/ </pre> <p>Enter Choice: <b>e</b></p> <p>For Non-Provisionable EPAP, the following is displayed.</p> <pre> INFO: Increasing rt volume size for Non-provisionable EPAP. Please wait... INFO: db space increased on 'A'. INFO: Stopping Epap, mysqlapp and mysqlpdb services... Done. INFO: Starting Epap, mysqlapp and mysqlpdb services... Done. </pre> |

## Procedure 11: Configuring the Application

|     |  |   |
|-----|--|---|
|     |  | INFO: Successfully configured Non-provisionable EPAP.   |
| 33. | <p><b>Move the pdba binary file on Mixed and PDBonly server</b></p> <p><b>Note:</b> This step is valid only when the user is performing migration.</p> | <pre>[epapdev@quito-a~]# cd /usr/TKLC/epap/bin [epapdev@quito-a bin]# mv pdba pdba_stopped [epapdev@quito-a bin]#</pre>   |
| 34. | <p><input type="checkbox"/> <b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 6, Platform Menu.</p>                                | <p><b>EPAP Configuration Menu for mixed EPAP:</b></p> <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration                   ----- -----    2   Configure Network Interfaces Menu       ----- -----    3   Set Time Zone                           ----- -----    4   Exchange Secure Shell Keys              ----- -----    5   Change Password                         ----- -----    6   Platform Menu                           ----- -----    7   Configure NTP Server                     ----- -----    8   PDB Configuration Menu                   ----- -----    9   Security                                 ----- -----   10   SNMP Configuration                       ----- -----   11   Configure Alarm Feed                     ----- -----   12   Configure Query Server                   ----- -----   13   Configure Query Server Alarm Feed        ----- -----   14   Configure SNMP Agent Community           ----- -----   15   Mate Disaster Recovery                   ----- -----    e   Exit                                  \-----\ </pre> <p>Enter Choice: 6</p> |

## Procedure 11: Configuring the Application

|   |   |  |
|---|---|--|
| <p>35.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The Platform Menu is displayed. Enter Choice 2, Reboot MPS.</p>  | <p>Menu for Mixed EPAP and Non-Provisionable EPAP:</p> <pre> /-----EPAP Platform Menu-----\   1   Initiate Upgrade     2   Reboot MPS          3   MySQL Backup        4   RTDB Backup         5   PDB Backup          e   Exit              \-----\ </pre> <p>Enter Choice: 2</p> <p>CAUTION: Rebooting this MPS will stop all EPAP processes will prevent updating of the RTDB until the EPAP software is automatically re-started when the system comes back up. Are you sure you want to reboot the MPS? [N]:</p> <p>Menu for Standalone PDB:</p> <pre> /-----EPAP Platform Menu-----\   1   Initiate Upgrade     2   Reboot MPS          3   MySQL Backup        4   PDB Backup          e   Exit              \-----\ </pre> <p>Enter Choice: 2</p> <p>CAUTION: Rebooting this MPS will stop all EPAP processes will prevent updating of the RTDB until the EPAP software is automatically re-started when the system comes back up.</p> |
| <p>36.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> For Mixed EPAP and Non-Provisionable EPAP you are prompted whether MPS A, MPS B or BOTH sides are to be rebooted. Select the default value of <b>BOTH</b> by pressing Return.</p> <p><b>Note: In case of the Standalone PDB, no prompt is given and the server goes down for a reboot.</b></p> | <p>For Mixed EPAP and Non-Provisionable EPAP, a prompt is displayed:</p> <p>Reboot MPS A, MPS B or [BOTH]: &lt;return&gt;</p> <p>For Standalone PDB, the following is displayed.</p> <pre> Reboot local MPS... Broadcast message from root (pts/1) (Thu May 29 16:13:51 2014): The system is going down for reboot NOW! </pre>   |

## Procedure 11: Configuring the Application

|                                 |   |  |
|---------------------------------|---|--|
| 37.                             | Move the pdba_stopped binary file on Mixed and PDBOnly server<br><br><b>Note: This step is valid only when user is performing migration</b> | <pre>[epapdev@Quito-a bin]# mv pdba_stopped pdba [epapdev@Quito-a bin]#</pre>  |
| 38.<br><input type="checkbox"/> | <b>MPS A:</b> The console logon appears at the system prompt signifying the EPAP initial configuration is completed.                        | <pre>&lt;hostname&gt; login: admusr Password:</pre><br>Note: The console logon will be preceded by many lines of reboot output.  |
| 39.<br><input type="checkbox"/> | <b>Connected PDBOnly:</b> Configure DSM Min Mem Size  | Run 0 only if the Non-Prov EPAP is installed and is connected to Standalone PDB server. Otherwise, skip this step if –<br>a. This is Mixed EPAP<br>b. This is non-prov EPAP and connected to mixed EPAP.   |
| 40.<br><input type="checkbox"/> | Reconnect console cables.   | On E5-APP-B card, reconnect the console cable between the serial port labeled 'S0' on E5-APP-B B card's adapter and the serial port labeled 'S1' on the E5-APP-B A card's adapter and the console cable between the serial port labeled 'S0' on E5-APP-B A card's adapter and the serial port labeled 'S1' on the E5-APP-B B card's adapter. <b>Cable part numbers - 830-1220-xx</b> |
| 41.<br><input type="checkbox"/> | Procedure complete.   | Procedure is complete.   |
| 42.<br><input type="checkbox"/> | Note down the timestamp in log.   | Run the following command:<br><br><b>\$ date</b>   |

## Procedure 12 Provision data from GUI

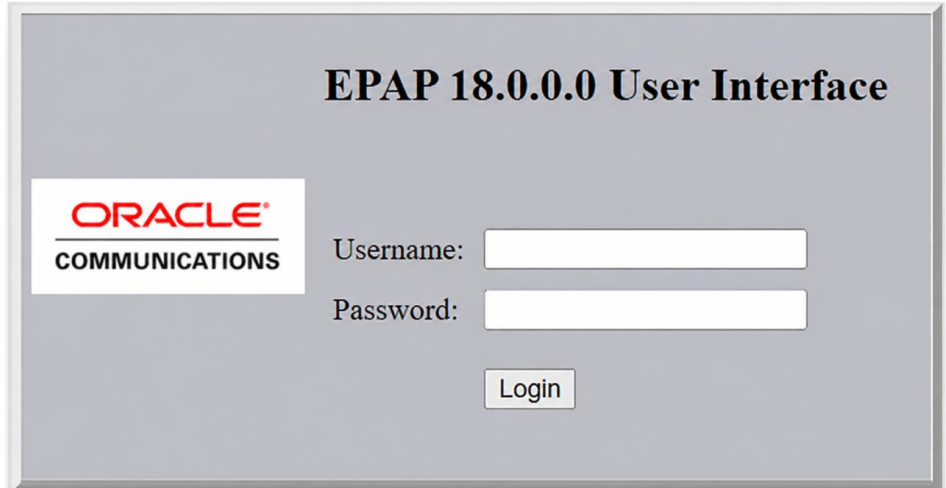
### Procedure 12: Provision data from GUI (Active Provisionable(mixed-EPAP or PDBOnly) Site as designated by customer)

|                                  |  |
|----------------------------------|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure provision 1 NE and 1 DN from GUI on Active Site.<br><br>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.<br><br>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE. |
|----------------------------------|--|

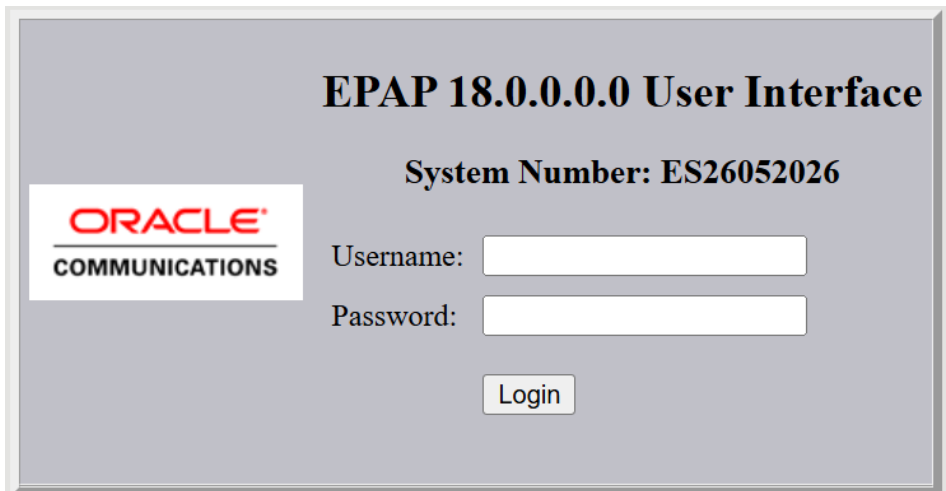
**Procedure 12: Provision data from GUI (Active Provisionable(mixed-EPAP or PDBonly) Site as designated by customer)**

1.  Access the EPAP GUI by opening a web browser (Preferably Microsoft Edge) via HTTPS and providing the IP address of Server A.
- The EPAP LOGIN screen should appear.

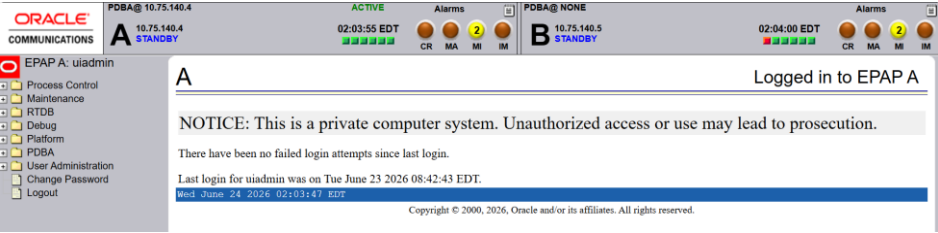
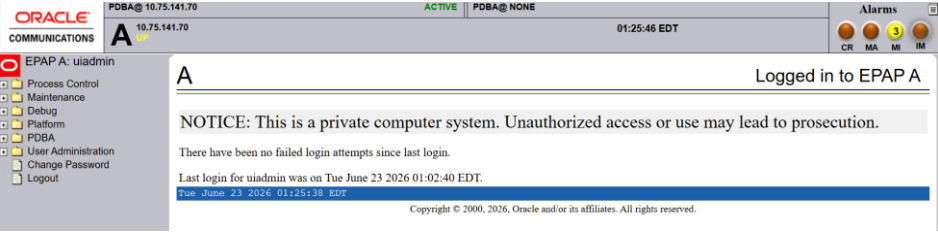
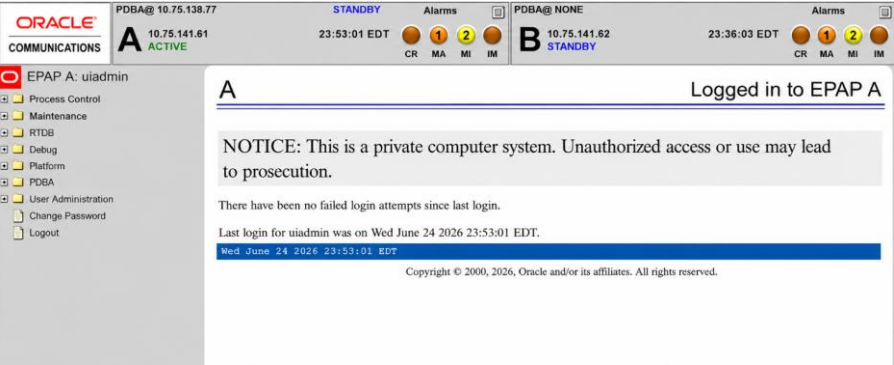
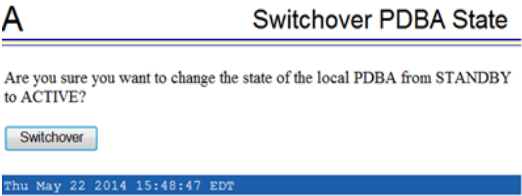
The GUI screen on Mixed EPAP should look like:



The GUI screen on Standalone PDB should look like:

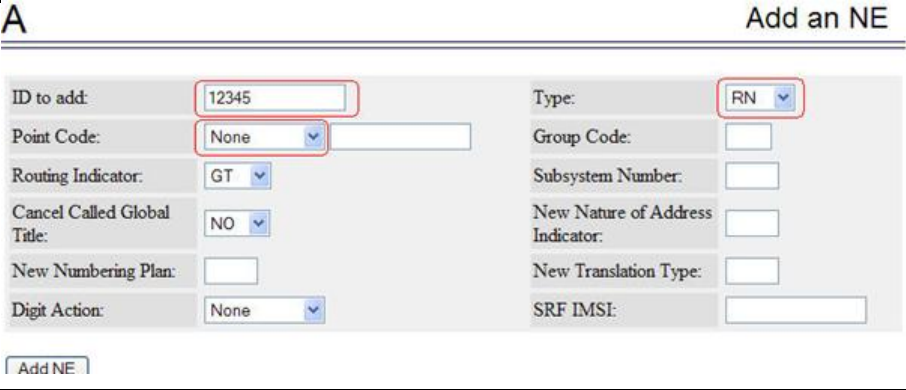

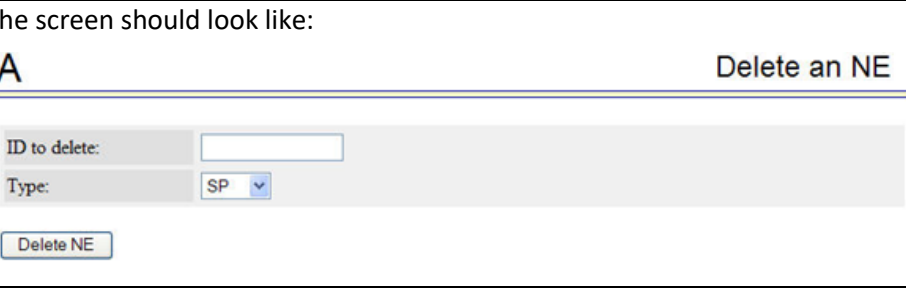
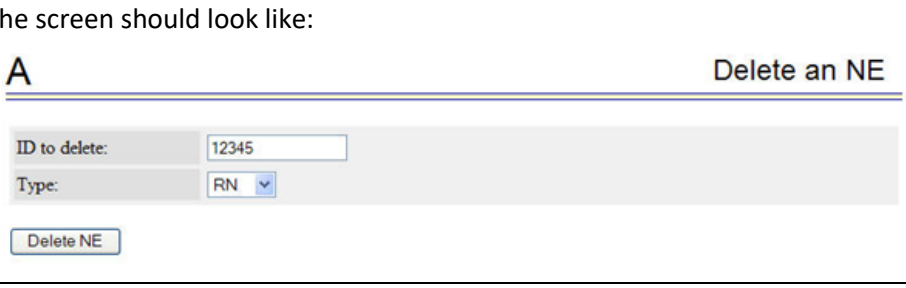
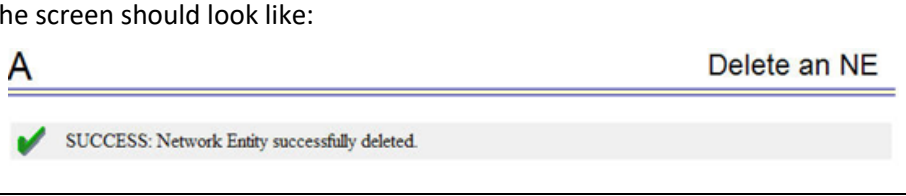


**Procedure 12: Provision data from GUI (Active Provisionable(mixed-EPAP or PDBonly) Site as designated by customer)**

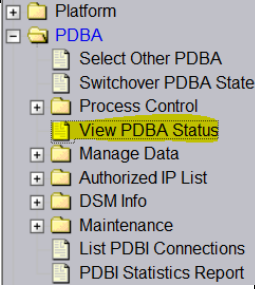
|   |  |   |
|---|--|---|
| <p>2.</p> <p><input type="checkbox"/></p> | <p>Login as uiadmin.</p>   | <p>The GUI screen on Mixed EPAP should look like:</p>  <p>The GUI screen on Standalone PDB should look like:</p>  <p>The GUI screen on Non-Prov EPAP should look like:</p>  |
| <p>3.</p> <p><input type="checkbox"/></p> | <p>On the Site designated by the customer Active PDB GUI select "Switchover PDBA State" to make the PDBA Active.</p> | <p>The screen should look like:</p>   |



**Procedure 12: Provision data from GUI (Active Provisionable(mixed-EPAP or PDBonly) Site as designated by customer)**

|                                     |  |  |
|-------------------------------------|--|--|
|                                     |  |                                        |
| <p>8. <input type="checkbox"/></p>  | <p>Click on the “Add NE” button. Network Entity should be successfully added.</p>      | <p>The screen should look like:</p>    |
| <p>9. <input type="checkbox"/></p>  | <p>Select PDBA→Manage Data→Network Entity→Delete</p>                                   | <p>The screen should look like:</p>   |
| <p>10. <input type="checkbox"/></p> | <p>Enter ID as “12345” and select Type “RN”.</p>                                       | <p>The screen should look like:</p>  |
| <p>11. <input type="checkbox"/></p> | <p>Click on the “Delete NE” button. Network Entity should be successfully deleted.</p> | <p>The screen should look like:</p>  |
| <p>12. <input type="checkbox"/></p> | <p>View PDBA Status</p>  | <p>The screen should look like:</p>  |

**Procedure 12: Provision data from GUI (Active Provisionable(mixed-EPAP or PDBonly) Site as designated by customer)**

|               |  | <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: right;">View PDBA Status</p> <hr/> <p style="text-align: center;"><b>PDBA@10.253.103.18 Status</b></p> <table border="0"> <tr> <td>Status:</td> <td>ACTIVE</td> <td>Version:</td> <td>1.0</td> </tr> <tr> <td>Level:</td> <td>2</td> <td>Birthday:</td> <td>07/23/2009 15:56:51 GMT</td> </tr> <tr> <td>DN Prefix:</td> <td></td> <td>IMSI Prefix:</td> <td></td> </tr> <tr> <td>Counts:</td> <td colspan="3">IMSI=0, DN=0, DN Blocks=0, NES=0, IMEI=0, IMEI Blocks=0, ASD=0, DN_DN=0, DNB_DN=0</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>RTDB Clients:</th> <th>Address</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td></td> <td>10.253.103.18</td> <td>2</td> </tr> <tr> <td></td> <td>192.168.2.200 (mate)</td> <td>2</td> </tr> </tbody> </table> <hr/> <p style="text-align: center;"><b>PDB@10.253.103.18 Status</b></p> <table border="0"> <tr> <td>Status:</td> <td>Database daemon is running</td> </tr> <tr> <td>Counts:</td> <td>IMSI=0, DN=0, DNBlocks=0, NES=0, IMEI=0, IMEIBlocks=0, ASD=0, DN_DN=0, DNB_DN=0</td> </tr> </table> </div> | Status:                 | ACTIVE | Version: | 1.0 | Level: | 2 | Birthday: | 07/23/2009 15:56:51 GMT | DN Prefix: |  | IMSI Prefix: |  | Counts: | IMSI=0, DN=0, DN Blocks=0, NES=0, IMEI=0, IMEI Blocks=0, ASD=0, DN_DN=0, DNB_DN=0 |  |  | RTDB Clients: | Address | Level |  | 10.253.103.18 | 2 |  | 192.168.2.200 (mate) | 2 | Status: | Database daemon is running | Counts: | IMSI=0, DN=0, DNBlocks=0, NES=0, IMEI=0, IMEIBlocks=0, ASD=0, DN_DN=0, DNB_DN=0 |
|---------------|---|--|-------------------------|--------|----------|-----|--------|---|-----------|-------------------------|------------|--|--------------|--|---------|---|--|--|---------------|---------|-------|--|---------------|---|--|----------------------|---|---------|----------------------------|---------|---|
| Status:       | ACTIVE  | Version:   | 1.0                     |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
| Level:        | 2   | Birthday:  | 07/23/2009 15:56:51 GMT |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
| DN Prefix:    |   | IMSI Prefix:   |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
| Counts:       | IMSI=0, DN=0, DN Blocks=0, NES=0, IMEI=0, IMEI Blocks=0, ASD=0, DN_DN=0, DNB_DN=0 |  |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
| RTDB Clients: | Address   | Level  |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
|               | 10.253.103.18   | 2  |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
|               | 192.168.2.200 (mate)  | 2  |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
| Status:       | Database daemon is running  |  |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
| Counts:       | IMSI=0, DN=0, DNBlocks=0, NES=0, IMEI=0, IMEIBlocks=0, ASD=0, DN_DN=0, DNB_DN=0   |  |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
| 13.           | <input type="checkbox"/> Procedure complete                                       | Procedure is complete.   |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |
| 14.           | <input type="checkbox"/> Note down the timestamp in log.                          | Run the following command:<br><b>\$ date</b>   |                         |        |          |     |        |   |           |                         |            |  |              |  |         |   |  |  |               |         |       |  |               |   |  |                      |   |         |                            |         |   |

**Procedure 13 Change DB Architecture**

**Procedure 13: Change the DB Architecture**

**NOTE:** Skip this procedure in following two cases:

1. EPAP 18.0 is a Mixed EPAP.
2. Extreme architecture is not required

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure changes the DB Architecture from COMPACT to eXtreme.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p> |   |
| 1.                               | <b>MPS A:</b> Log in as epapdev user.   | <pre>[hostname] console login: epapdev password: password</pre>   |
| 2.                               | <b>MPS A:</b> Verify that DSM_MIN_MEM_SIZE is correctly set   | <p>Verify that DSM_MIN_MEM_SIZE is set correctly for the server to be converted into extreme architecture.</p> <p>To convert DB architecture of an EPAP installed with release 18.0 from compact to extreme, the value of DSM_MIN_MEM_SIZE should be set to either of these 4 values - 12046 or 24092 or 12370 or 24740.</p> <pre>[root@Cusco-a logs]# uiEdit   grep -i DSM_MIN_MEM_SIZE "DSM_MIN_MEM_SIZE" is set to "24092"</pre> |

|    |   |  |
|----|---|--|
|    |   | <p>If you don't get any output from the above command or the value in the output is set to something else other than 12046/24092/12370/24740, kindly set the needed value explicitly using the below command.</p> <pre>[epapdev@Cres-a ~]\$ viEdit "DSM_MIN_MEM_SIZE" 24092 "DSM_MIN_MEM_SIZE" is set to "24092"</pre> |
| 3. | MPS A: Log into epapconfig.   | <p>Switch to root user.,</p> <pre>\$su - &lt;root Password&gt;</pre> <p>\$ su - epapconfig</p> <p>warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904.</p>   |
| 4. | <p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 14 or 15, DB Architecture Menu</p> <p><b>Note: Select choice 14 on Non-provisionable EPAP and 15 on PDBonly.</b></p> | <p><b>Note: Start Pdba software before running this operation.</b></p> <p><b>EPAP Configuration Menu for Non-Provisionable:</b></p>  |

```

/-----EPAP Configuration Menu-----\
/-----\
| 1 | Display Configuration |
|-----|
| 2 | Configure Network Interfaces Menu |
|-----|
| 3 | Set Time Zone |
|-----|
| 4 | Exchange Secure Shell Keys |
|-----|
| 5 | Change Password |
|-----|
| 6 | Platform Menu |
|-----|
| 7 | Configure NTP Server |
|-----|
| 8 | PDB Configuration Menu |
|-----|
| 9 | Security |
|-----|
| 10 | SNMP Configuration |
|-----|
| 11 | Configure Alarm Feed |
|-----|
| 12 | Configure SNMP Agent Community |
|-----|
| 13 | Mate Disaster Recovery |
|-----|
| 14 | DB Architecture Menu |
|-----|
| e | Exit |
\-----\

Enter choice: 14

EPAP Configuration Menu for standalone PDB:

```

|    |   |  |
|----|---|--|
|    |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    10   SNMP Configuration    -----    11   Configure Alarm Feed    -----    12   Configure Query Server    -----    13   Configure Query Server Alarm Feed    -----    14   Configure SNMP Agent Community    -----    15   DB Architecture Menu    -----    e   Exit   \-----/ </pre> <p>Enter choice: 15</p> |
| 5. | <p><b>MPS A:</b> The DB Architecture Menu is displayed. Select choice 1, Display current DB Architecture</p> <p>Note: Default DB Architecture is displayed.</p> | <pre> /-----DB Architecture Menu-----\ /-----\   1   Display Current DB Architecture    -----    2   Change DB Architecture to eXtreme    -----    e   Exit   \-----/ </pre> <p>Enter Choice: 1</p>  |

|    |  |  |
|----|--|--|
|    |  | DB Architecture: COMPACT   |
| 6. | <p><b>MPS A:</b> The DB Architecture Menu is displayed. Select choice 2, Change DB Architecture to eXtreme</p> <p><b>NOTE:</b><br/>It may be asked to stop the EPAP software if it is running. Stop it by answering 'Y'.</p> | <p>Skip this step if DB Architecture already set to eXtreme.</p> <pre> /-----DB Architecture Menu-----\ /-----\    1   Display Current DB Architecture    ----- -----     2   Change DB Architecture to eXtreme    ----- -----     e   Exit                               \-----/ </pre> <p>Enter Choice: 2</p> <p><b>Example output Non-Provisionable EPAP:</b></p> <pre> Caution: If this option is selected, the DB Architecture shall be changed           from Compact to eXtreme and this architecture cannot be reverted. WARNING: In order to complete this change in DB Architecture, you must perform RTDB conversion.  Are you sure you want to change the DB Architecture from Compact to eXtreme? [N]: y EPAP software is running. Stop it? [N]: y EPAP software is running on mate MPS. Stop it? [N]: y  INFO: DB ARCHITECTURE changed to eXtreme. </pre> <p><b>Example output Standalone PDB:</b></p> |

|    |  |  |
|----|--|--|
|    |  | <p>Caution: If this option is selected, the DB Architecture shall be changed from Compact to eXtreme and this architecture cannot be reverted. Please verify that all connected Non-Provisional Sites are running on eXtreme Architecture.</p> <p>It will take 30 minutes or more to populate the PDB 9Dig tables.</p> <p>Are you sure you want to change the DB Architecture from Compact to eXtreme? [N]: Y<br/> EPAP software is running. Stop it? [N]: Y<br/> PDBA software is running. Stop it? [N]: Y</p> <p>INFO: Populating the DN 9 Digit tables...</p> <p>INFO: Populating the IMSI 9 Digit tables...</p> <p>INFO: Populating the IMEI 9 Digit tables...</p> <p>INFO: DB ARCHITECTURE changed to eXtreme.</p> <p>Press return to continue...</p> |
| 7. | <b>MPS A:</b> The DB Architecture Menu is displayed. Select choice e, Exit | <pre> /-----DB Architecture Menu-----\ /-----\    1    Display Current DB Architecture    ----- -----     2    Change DB Architecture to eXtreme    ----- -----     e    Exit                                 \-----/ </pre> <p>Enter Choice: e</p>  |
| 8. | <b>MPS A:</b> EPAP Configuration Menu is displayed. Select choice e, Exit  |  |

|     |   |   |
|-----|---|---|
|     |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    10   SNMP Configuration    -----    11   Configure Alarm Feed    -----    12   Configure Query Server    -----    13   Configure Query Server Alarm Feed    -----    14   Configure SNMP Agent Community    -----    15   DB Architecture Menu    -----    e   Exit   \-----/  Enter Choice: e </pre> |
| 9.  | <p><b>MPS A:</b> Start Epap and Pdba software.</p> <p><b>Note: Move to step 11 if it is configured as PDBonly. Otherwise continue to next step.</b></p> | <p>Start Epap and Pdba software to reflect the changes. Use the following command to start Epap:</p> <pre> \$ systemctl start Pdba  ~~ /etc/init.d/Epap start ~~ "EPAP_RELEASE" is set to "0.617" EPAP application start Successful.  \$ systemctl start Pdba  ~~ /etc/init.d/Pdba start ~~ PDBA application start Successful. </pre>   |
| 10. | <p><b>MPS B:</b> Log on Server B.</p>   | <pre> [hostname] consolelogin: epapdev password: <i>password</i> </pre>   |

|     |                                    |  |
|-----|------------------------------------|--|
| 11. | <b>MPS B:</b> Start Epap software. | <p>Start Epap software to reflect the changes.<br/>Use the following command to start Epap:</p> <pre><b>\$ sudo systemctl start Epap</b></pre> <pre>~~ /etc/init.d/Epap start ~~<br/>"EPAP_RELEASE" is set to "0.617"<br/>EPAP application start Successful.</pre> |
| 12. | Procedure complete.                | Procedure is complete.   |
| 13. | Note down the timestamp in log.    | <p>Run the following command:</p> <pre><b>\$ date</b></pre>  |

## 7 SOFTWARE UPGRADE PROCEDURES

### Procedure 14 Assess MPS server's readiness for upgrade

#### Procedure 14: Assess the MPS Server's Readiness for Upgrade

|                                  |   |  |
|----------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure Runs the steps required to assess the readiness of a system to be upgraded.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND <b>ASK FOR UPGRADE ASSISTANCE.</b></p> |  |
| 1.<br><input type="checkbox"/>   | <p><b>MPS B:</b> Log in as the user "admusr".</p>   | <p>If not already logged-in, then log in.</p> <pre>&lt;hostname&gt; console login: admusr password: &lt;password&gt;</pre>   |
| 2.<br><input type="checkbox"/>   | <p><b>MPS B:</b> Display the /etc/hosts configuration for the pdb entities.</p>   | <p>If upgrading the first MPS B of a Provisionable mated pair, Run the following command to display the configuration of pdb entries:</p> <pre>\$ grep pdb /etc/hosts</pre> <p>Otherwise, skip to step 4.</p>  |
| 3.<br><input type="checkbox"/>   | <p><b>MPS B:</b> Verify the correct configuration for pdb entities in the /etc/hosts file.</p>  | <p>Below is an example of the output of the grep command:</p> <pre>192.168.55.176      host1-a  pdba 192.168.61.76      host2-a  prova-ip  pddb</pre> <p>If the command output contains 2 entries (pdba and pddb are both configured), continue to the next step .</p> <p>If the command output does not contain unique entries for pdba and pddb, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section.</p>   |
| 4.<br><input type="checkbox"/>   | <p><b>MPS B:</b> Display the contents of the /var/TKLC/upgrade directory.</p>   | <p>Run the following command to display the presence of EPAP software ISO images:</p> <pre>\$ ls -la /var/TKLC/upgrade</pre> <p><b>Note:</b> The file permissions and ownership may vary due to the different methods used to transfer the file.</p> <p>Below is an example of the output of the 'ls -la' command for EPAP16.2:</p> <pre>[root@Natal-A upgrade]# ls -la total 1785996 drwxrwxr-x.  3 root admgrp   4096 Jun 23 01:19 . dr-xr-xr-x. 21 root root     4096 Jun 23 00:00 .. -r--r----- 1 root root   904644608 Jun 23 01:19 EPAP-16.2.0.0.1_162.26.0-x86_64.iso</pre> |

## Procedure 14: Assess the MPS Server's Readiness for Upgrade

|  |   |  |
|--|---|--|
| <p>5.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Delete old ISO images.</p>   | <p>Remove any ISO images that are not the target software ISO image using the following command:</p> <pre># sudo rm -f /var/TKLC/upgrade/&lt;filename&gt;</pre> <p>Refer to step 6 to display the content of /var/TKLC/upgrade directory. Removed ISO should not be displayed.</p>   |
| <p>6.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Determine when last reboot occurred.<br/>For any server up longer than 180 days would be a candidate for reboot during a maintenance window.</p> | <pre>\$ uptime</pre> <pre> 15:19:34 up 23 days,  3:05,  2 users,  load average: 0.10, 0.13, 0.09</pre>   |
| <p>7.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Disk Integrity step: Running self-test on the disk.</p>  | <p>Run the following command:</p> <pre>\$ sudo smartctl -t short /dev/sda</pre> <p>The output on E5-APP-B card would be:</p> <pre>smartctl 5.43 2012-06-30 r3573 [x86_64-linux-2.6.32-642.6.2.el6prere17.4.0.0_88.32.0.x86_64] (local build) Copyright (C)2002-12 by Bruce Allen, http://smartmontools.sourceforge.net  === START OF OFFLINE IMMEDIATE AND SELF-TEST SECTION === Sending command: "Run SMART Short self-test routine immediately in off-line mode". Drive command "Run SMART Short self-test routine immediately in off-line mode" successful. Testing has begun. Please wait 1 minutes for test to complete. Test will complete after Sat Feb 25 22:08:20 2017  Use smartctl -X to abort test.</pre> <p>Note: Please wait for 5 minutes for the test to complete.</p> |
| <p>8.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Disk Integrity step.<br/><br/>Contact My Oracle Support if the output shows any error/failure.</p>   | <p>Run the following command:</p> <pre>\$ sudo smartctl -l selftest /dev/sda</pre> <p>The output on E5-APP-B card would be like:</p> <pre>smartctl 5.43 2012-06-30 r3573 [x86_64-linux-2.6.32-642.6.2.el6prere17.4.0.0_88.32.0.x86_64] (local build) Copyright (C) 2002-12 by Bruce Allen, http://smartmontools.sourceforge.net  === START OF READ SMART DATA SECTION === SMART Self-test log structure revision number 1</pre>  |

## Procedure 14: Assess the MPS Server's Readiness for Upgrade

|     |  |   |
|-----|--|---|
|     |  | <pre> Num Test_Description Status Remaining LifeTime(hours) LBA_of_first_error # 1 Short offline Completed without error 00% 12435 </pre>   |
| 9.  | <input type="checkbox"/> <b>MPS B:</b> Disk Integrity step<br><br>Contact My Oracle Support if any output shows " <b>Completed: read failure</b> " or " <b>Error: UNC xxx sectors</b> ". | Run the following command:<br><b>\$ sudo smartctl -a /dev/sda   grep -i LBA</b><br><br>The output would be like:<br><br><pre> 241 Total_LBAs_Written 0x0032 100 100 000 Old_age Always - 340851 242 Total_LBAs_Read 0x0032 100 100 000 Old_age Always - 1689714 </pre> <pre> Num Test_Description Status Remaining LifeTime(hours) LBA_of_first_error SPAN MIN_LBA MAX_LBA CURRENT_TEST_STATUS </pre> |
| 10. | <input type="checkbox"/> <b>MPS B:</b> Disk Integrity Test.  | Repeat steps 9 to 11 for the /dev/sdb disk drive on E5-APP-B card:  |
| 11. | <input type="checkbox"/> <b>MPS B:</b> Log out from "admusr".  | Log out from the "admusr" user by running the following command:<br><br><b>\$ exit</b>  |
| 12. | <input type="checkbox"/> <b>MPS A:</b> Repeat checks on Server A.  | Repeat steps-1 to 13 on MPS A.  |
| 13. | <input type="checkbox"/> Procedure Complete.   | This procedure is complete.   |
| 14. | <input type="checkbox"/> Note down the timestamp in log.   | Run the following command:<br><br><b>\$ date</b>  |

## Procedure 15 Preupgrade Backups

### Procedure 15: Preupgrade Backups

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure performs the pre and post upgrade backups.   |   |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |   |
|                                  | <b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR UPGRADE ASSISTANCE.</b>                     |   |
| 1.                               | <input type="checkbox"/> <b>MPS A:</b> Backup system configuration on MPS A.                                  | Follow 0 to backup the system configuration on MPS A. |
| 2.                               | <input type="checkbox"/> <b>MPS B:</b> Backup system configuration on MPS B.                                  | Follow 0 to backup the system configuration on MPS B. |

### Procedure 15: Preupgrade Backups

| <p>3. <input type="checkbox"/></p> | <p><b>MPS B: Backup RTDB database.</b></p> <p><b>Note:</b> If migrating from 17.0.0.x, skip this step.</p>   | <p>Perform Procedure A.7 to backup the RTDB database on MPS B.</p> <p>Note: Perform this step only while upgrading Mixed and Non-Prov Nodes.</p>  |   |  |  |      |   |   |                  |    |                  |      |                                |    |      |      |   |
|------------------------------------|--|---|---|--|--|------|---|---|------------------|----|------------------|------|--------------------------------|----|------|------|---|
| <p>4. <input type="checkbox"/></p> | <p><b>MPS A: Backup EuiDB database..</b></p> <p><b>Note:</b> If migrating from 17.0.0.x, skip this step.</p>   | <p>Perform <a href="#">Procedure A.8</a> to backup the EuiDB database on MPS A.</p>   |   |  |  |      |   |   |                  |    |                  |      |                                |    |      |      |   |
| <p>5. <input type="checkbox"/></p> | <p><b>MPS A: Backup PDB database.</b></p> <p><b>Note:</b> Only perform this step if the MPS-A is configured as a Provisionable node. Check the output of <a href="#">Procedure 2</a>, step 9 to verify if MPS A is provisionable or not.</p> | <table border="1"> <thead> <tr> <th>Case</th> <th>Source Release (Server where Backup is taken)</th> <th>Destination Release (Server where backup is to be restored)</th> <th>Backup Procedure</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>17.0.x<br/>17.1.x</td> <td>18.x</td> <td><a href="#">Procedure A.50</a></td> </tr> <tr> <td>2.</td> <td>18.x</td> <td>18.y</td> <td> <a href="#">Procedure A.6</a><br/><br/>           NOTE: Read the notes given below in this step to verify the disk size.         </td> </tr> </tbody> </table> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>In a dual mixed/dual PDBonly server configuration, where both mixed/pdbonly servers have the same disk size (either 480GB or 300GB) and one of the provisioning sites has already been upgraded to EPAP 18.x, take the PDB backup from the GUI of the upgraded provisioning site. The other provisioning site will subsequently be upgraded to the same 18.x release. Hence, the backup from the already upgraded site will be compatible and can be used for this upgrade as well.</li> <li>Check disk size of both source and destination servers with “fdisk -l” command. If the source and destination servers are of different disk sizes, i.e one is E5-APPB-01 (300GB) and the other is E5-APPB-02 (480GB), contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section.</li> </ol> |   |  |  | Case | Source Release (Server where Backup is taken) | Destination Release (Server where backup is to be restored) | Backup Procedure | 1. | 17.0.x<br>17.1.x | 18.x | <a href="#">Procedure A.50</a> | 2. | 18.x | 18.y | <a href="#">Procedure A.6</a><br><br>NOTE: Read the notes given below in this step to verify the disk size. |
| Case                               | Source Release (Server where Backup is taken)  | Destination Release (Server where backup is to be restored)   | Backup Procedure  |  |  |      |   |   |                  |    |                  |      |                                |    |      |      |   |
| 1.                                 | 17.0.x<br>17.1.x   | 18.x  | <a href="#">Procedure A.50</a>  |  |  |      |   |   |                  |    |                  |      |                                |    |      |      |   |
| 2.                                 | 18.x   | 18.y  | <a href="#">Procedure A.6</a><br><br>NOTE: Read the notes given below in this step to verify the disk size. |  |  |      |   |   |                  |    |                  |      |                                |    |      |      |   |

## Procedure 15: Preupgrade Backups

|                                    |   |  |
|------------------------------------|---|--|
|                                    |   | <p><b>3. When upgrading a dual PDBonly or dual Mixed server, if one PDBA site is upgraded to EPAP 18.x, the peer PDBA site should also be upgraded to EPAP 18.x as soon as possible.</b></p> <p><b>EPAP 18.0 uses MySQL 8.4.9, which supports backup compatibility only for versions 8.4.3 through 8.4.9. As a result, direct PDB backup/restore from the EPAP GUI is not supported for:</b></p> <p><b>EPAP 17.0.0.5 and earlier (MySQL 8.0.35)</b><br/> <b>EPAP 17.0.0.6 and later, and EPAP 17.1.x (MySQL 8.4.0)</b></p> <p><b>For EPAP 17.0.x and 17.1.x systems, backups must be taken using <a href="#">Procedure A.50</a> and restored using <a href="#">Procedure A.51</a>.</b></p>   |
| <p>6. <input type="checkbox"/></p> | <p>Create tar of the free directory data and transfer the backup to remote server</p> <p><b>NOTE- This step needs to be skipped in Post upgrade backups</b></p> | <p>Before creating the tar archive, remove any unnecessary backup files or custom-generated files that are no longer required.</p> <p>Firstly switch to root user then proceed</p> <pre>\$ su -</pre> <p>1. Create the TAR file (with hostname + date/time in the filename)</p> <pre>\$ tar -C /var/TKLC/epap -czpf /var/TKLC/epap/free/free_\$(hostname -s)_\$(date +%F_%H%M%S).tgz --exclude='free/comco1' --exclude='free/free_*.tgz' free</pre> <p>2. Using SFTP (secure-FTP), transfer the backup tar to a remote, customer-provided computer. Enter “yes” when prompted if you want to continue to connect.</p> <p>Note- backup_file is the tar created from above step.</p> <pre>\$ cd /varTKLC/epap/free</pre> <pre>\$ sftp &lt;IP address of remote computer&gt; Connecting to &lt;IP address of remote computer&gt;... The authenticity of host '&lt;IP address of remote computer&gt;' can't be established. DSA key fingerprint is 58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24. Are you sure you want to continue connecting (yes/no)? <b>yes</b> Warning: Permanently added &lt;IP address of remote computer&gt;' (DSA) to the list of known hosts. root@&lt;IP address of remote computer&gt;'s password: sftp&gt; cd &lt;target directory&gt; sftp&gt; put backup_file</pre> |

## Procedure 15: Preupgrade Backups

|    |                                 |  |
|----|---------------------------------|--|
|    |                                 | <p>Note: put backups one by one</p> <pre>Uploading backup_file sftp&gt; bye</pre> <p>If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command:</p> <pre><b>\$ chmod 666 /var/TKLC/epap/free/&lt;backup_file&gt;</b> /var/TKLC/epap/free/&lt;backup_file&gt; epapdev@mate:/var/TKLC/epap/free/</pre> |
| 7. | Note down the timestamp in log. | <p>Run the following command:</p> <pre><b>\$ date</b></pre>  |
| 8. | Procedure Complete.             | This procedure is complete.  |

## Procedure 16 Preupgrade system time check

### Procedure 16: Pre-upgrade System Time Check

|   |   |   |
|---|---|---|
| <b>S</b>  | This procedure performs the pre-upgrade system time check.  |   |
| <b>T</b>  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |   |
| <b>E</b>  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u> .                    |   |
| <b>P</b>  |   |   |
| <b>#</b>  |   |   |
| <p><b>The MPS servers make use of NTP to keep time synchronized between servers. Under some circumstances, either at initial installation in the customer’s network or due to power interruption and battery failure, it is possible for an MPS server to have a system date/time value too large for NTP to correct. If the system time is 20 minutes or more off from the real time, NTP cannot correct it.</b></p> <p><b>Check the date/time on <i>both</i> MPS-A and MPS-B servers, and correct the system time on any server off by more than 15 minutes from the real time.</b></p> |   |   |
| 1.  | <b>MPS A:</b> Login as the user “epapdev”.  | If not already logged-in, then login at MPS A:<br><pre>&lt;hostname&gt; console login: epapdev password: &lt;password&gt;</pre> |
| 2.  | <b>MPS A:</b> Run the “date” command.   | Run the “date” command and examine the result.<br><pre><b>\$ date</b> Sat Feb 25 22:09:58 EDT 2018</pre>                        |
| 3.  | <b>MPS B:</b> Login as the user “epapdev”.  | If not already logged-in, then login at MPS B:<br><pre>&lt;hostname&gt; console login: epapdev password: &lt;password&gt;</pre> |
| 4.  | <b>MPS B:</b> Run the “date” command.   | Run the “date” command and examine the result.<br><pre><b>\$ date</b></pre>   |

|                                |                                  |   |
|--------------------------------|----------------------------------|---|
|                                |                                  | Sat Feb 25 22:09:58 EDT 2018  |
| 5.<br><input type="checkbox"/> | Compare result to the real time. | Compare the result from the "date" command in the previous step to the real time.<br>If the difference is 15 minutes or less, then this procedure is complete, otherwise if the difference exceeds 15 minutes, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section |
| 6.<br><input type="checkbox"/> | Procedure Complete.              | This procedure is complete.   |
| 7.<br><input type="checkbox"/> | Note down the timestamp in log.  | Run the following command:<br><b>\$ date</b>  |

## Procedure 17 Check 9dig counts before moving to eXtreme architecture

### Procedure 17: Check 9dig counts before moving to eXtreme architecture

**Note:** This step is only required before converting DB architecture from Compact to Extreme

|   |   |  |
|---|---|--|
| <b>S</b><br><b>T</b><br><b>E</b><br><b>P</b><br><b>#</b>  | <p>This procedure checks the 9dig counts for all DN/IMSI and IMEI.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</b></p> |  |
| <p><b>Verify the PDB data are within 9dig limitation</b></p> <p>Maximum 9dig limit for DN: 65K<br/> Maximum 9dig limit for IMSI: 65K<br/> Maximum 9dig limit for IMEI: 250K</p> |   |  |
| <b>1.</b><br><input type="checkbox"/>   | <p><b>MPS A:</b> Login as the user "epapdev" on standalone PDB.</p>   | <p>If not already logged-in, then login at MPS A:<br/> <b>&lt;hostname&gt; console login: epapdev</b><br/> <b>password: &lt;password&gt;</b></p>   |
| <b>2.</b><br><input type="checkbox"/>   | <p><b>MPS A:</b> Run the "parse9Dig" script on standalone PDB.</p>  | <p>Run the "parse9Dig" script and examine the result.</p> <p><b>Note: Stop the Pdba software before running this script.</b></p> <p>\$ /usr/TKLC/epap/config/parse9Dig all c</p> <p>Get reference from the following snapshot:</p> <pre> [epapdev@Osorna-1B-PDBOnly config]\$ /usr/TKLC/epap/config/parse9Dig all c  This utility will retrieve all digits for DB and parse them into 9Dig entries.  ***** Utility Start Time: 06/13/18-20:51:48  Parsing DN digits into 9digits... INFO: DN 9dig count 2.  Parsing IMSI digits into 9digits... INFO: IMSI 9dig count: 9.  Parsing IMEI digits into 9digits... INFO: IMEI 9dig count: 1.  Utility End Time: 06/13/18-20:51:48 [epapdev@Osorna-1B-PDBOnly config]\$ </pre> <p><b>If any of the data type from DN/IMSI and IMEI exceeds the 9Dig limit, then DB Architecture cannot be changed to eXtreme.</b></p> |

|                                |                                      |   |
|--------------------------------|--------------------------------------|---|
| 3.<br><input type="checkbox"/> | <b>MPS A:</b> Start Pdba software.   | <p>Run the following command to start Pdba software on EPAP 16.3.1/16.4.1 servers:</p> <pre>\$ service Pdba start</pre> <p>~~ /etc/init.d/Pdba start ~~<br/>PDBA application start Successful.</p> <p>Exeucte the following command to start Pdba software on EPAP 17.0 servers:</p> <pre>\$ systemctl start Pdba</pre> |
| 4.<br><input type="checkbox"/> | <b>MPS A:</b> Procedure is complete. | This procedure is complete.   |
| 5.<br><input type="checkbox"/> | Note down the timestamp in log.      | <p>Run the following command:</p> <pre>\$ date</pre>  |

## Procedure 18 DIU Upgrade Server B

### Procedure 18: DIU Upgrade Server B

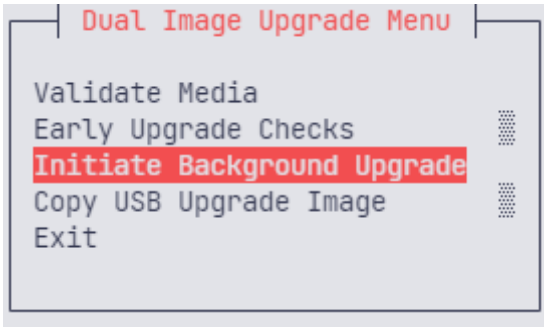
**Note:** Ensure that the Legacy Upgrade before DIU is accepted, otherwise it might cause an error while initiating background upgrade in DIU.

| S. No | Steps                                  |  |
|-------|--|--|
|       |  | <p>This procedure performs Dual Image Upgrade on the server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose beside each step number.</p> <p>If this procedure fails, contact My Oracle Support and ask for ASSISTANCE.</p> |
| 1     | MPS B: Login prompt is displayed.      | <p>&lt;hostname&gt; console login:</p> <p>Note: Press enter if no login prompt is displayed.</p>   |
| 2     | MPS B: Log in as "root" user.          | <pre>[hostname] consolelogin: root password: password</pre>  |
| 3     | MPS B: Copy DIU ISO                    | <p>Perform the procedure in <a href="#">Procedure A.12</a> or copy EPAP DIU ISO to /var/TKLC/upgrade directory.</p> <p>Make sure that only the DIU iso and patch is present in the directory.</p>  |
| 4     | Create a terminal window log in MPS B. | <p>If not already connected, connect to the E5-APP-B card via the serial port.</p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card's adapter. The cable should be disconnected at the</p>                |

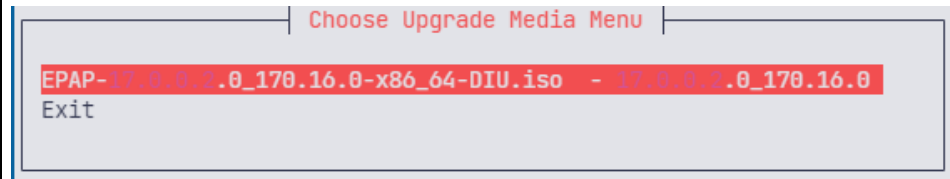
|   |  |   |
|---|--|---|
|   |  | <p>point where it connects to the serial port labeled 'S1' on the E5-APP-B A card's adapter and use it for serial access. Cable part numbers - 830-1220-xx</p>  |
| 5 | <p>MPS B: Move all custom files and run pre upgrade script</p> | <p>Note: NTP must be configured before starting DIU.<br/> NOTE: All custom files, scripts, folders need to be migrated to remote server before the DIU process is started. These need to be restored back to their place after the DIU process is completed.</p> <p><b>&lt;hostname&gt; console login: root<br/> password:</b></p> <p>Run allowRoot ON both the pairs before running script on mated pairs<br/> e.g.<br/> <b>[root@MPS-B upgrade]# allowRoot ON</b></p> <p>/etc/securetty file successfully updated.</p> <p>/etc/ssh/sshd_config file successfully updated.<br/> Service sshd has been restarted but existing root ssh sessions will not be terminated.</p> <p>/etc/pam.d/su file successfully updated.</p> <p>Change permission and group of the script downloaded from</p> <p><b>[root@MPS-B tmp]# chmod +x diuPreUpgrade.sh<br/> [root@MPS-B tmp]# chown root:root diuPreUpgrade.sh</b></p> <p>NOTE:- Before running the pre-upgrade script, ensure the mount point `/var/TKLC/epap/free` is not in active use. Specifically, verify that no interactive shells (e.g., `bash`) or other processes have their current working directory set to `/var/TKLC/epap/free` (or any subdirectory), as this will cause the unmount step to fail with "target is busy."</p> <p>Run the pre-upgrade script</p> <pre><b>[root@MPS-B tmp]# ./diuPreUpgrade.sh</b> [INFO] Setting SPLIT_MIRROR=1 in /usr/TKLC/plat/etc/upgrade/upgrade.conf [INFO] + printf '%s\n' 'SPLIT_MIRROR=1' &gt; '/usr/TKLC/plat/etc/upgrade/upgrade.conf' [INFO] + cat '/usr/TKLC/plat/etc/upgrade/upgrade.conf' SPLIT_MIRROR=1 [INFO] Comco1 folder /var/TKLC/epap/free/comco1 does not exist or is empty. [INFO] Parsed: function_output='PDBonly' df_output='' for /vgroot- db [INFO] PDBonly detected in /etc/profile.d/TKLCplat_conf.sh; skipping conditional DB stop block. Created symlink /etc/systemd/system/Pdba.service -&gt; /dev/null.</pre> |

|   |  |  |
|---|--|--|
|   |  | <pre> Created symlink /etc/systemd/system/mysqld@pdb.service -&gt; /dev/null. [INFO] Moving comcol to /var/TKLC/epap/logs [INFO] + mv /var/TKLC/epap/free/comcol /var/TKLC/epap/logs/ Proceeding, VG free is only 0G... [INFO] Unmounting /var/TKLC/epap/free if mounted [INFO] + umount /var/TKLC/epap/free 2&gt;/dev/null    true [INFO] Removing existing LV vgroot/free if present [INFO] + lvremove -y /dev/mapper/vgroot-free 2&gt;/dev/null    lvremove -y /dev/vgroot/free 2&gt;/dev/null    true Logical volume "free" successfully removed. [INFO] Querying VG free space for vgroot [INFO] VG free before create: 205.63G (int=205G) [INFO] Allocating LV size xvalue=175G (leaving ~30G VG free) [INFO] + lvcreate --yes -L '175G' --name 'free' 'vgroot' Wiping ext4 signature on /dev/vgroot/free. Logical volume "free" created. [INFO] + mkfs.ext4 -F /dev/mapper/vgroot-free' mke2fs 1.46.2 (28-Feb-2021) Discarding device blocks: done Creating filesystem with 45875200 4k blocks and 11468800 inodes Filesystem UUID: f672176c-bc7d-45de-b196-443e11979691 Superblock backups stored on blocks:     32768, 98304, 163840, 229376, 294912, 819200, 884736,     1605632, 2654208,     4096000, 7962624, 11239424, 20480000, 23887872  Allocating group tables: done Writing inode tables: done Creating journal (262144 blocks): done Writing superblocks and filesystem accounting information: done  [INFO] + mount /dev/mapper/vgroot-free /var/TKLC/epap/free' [INFO] + chown epapdev:epap /var/TKLC/epap/free' [INFO] Restoring comcol back to /var/TKLC/epap/free [INFO] + mv /var/TKLC/epap/logs/comcol /var/TKLC/epap/free/' [INFO] VG free after create: 30.63G (int=30G). Expected ~30G remaining. [INFO] Completed successfully. [root@Salta-B tmp]#  Run vgs to make sure Free space is 30G  [root@MPS-A tmp]# vgs VG      #PV #LV #SN Attr   VSize   VFree vgroot   1   9   0 wz--n- &lt;442.41g 30.63g </pre> |
| 6 | MPS B: Start platcfg utility.  | <b>\$ su - platcfg</b>   |
| 7 | MPS B: Navigate to the Upgrade menu.<br>**NOTE**: Make sure to select Dual Image Upgrade only. | The platcfg Main Menu appears.<br>1. On the Main Menu, select Maintenance and press [ENTER].   |

|    |                                    |   |
|----|------------------------------------|---|
|    |                                    | <div> <p>Main Menu</p> <ul style="list-style-type: none"> <li>Maintenance</li> <li>Diagnostics</li> <li>Server Configuration</li> <li>Network Configuration</li> <li>Remote Consoles</li> <li>Security</li> <li>Exit</li> </ul> </div> <p>Select the Dual Image Upgrade menu and press [ENTER].</p> <div> <p>Maintenance Menu</p> <ul style="list-style-type: none"> <li>Dual Image Upgrade</li> <li>Upgrade</li> <li>Patching</li> <li>Backup and Restore</li> <li>Restart Server</li> <li>Save Platform Debug Logs</li> <li>Platform Data Collector</li> <li>Exit</li> </ul> </div> |
| 8. | MPS B: Validate ISO file.          | Validate ISO file using <a href="#">Procedure A.2</a> .   |
| 9. | MPS B: Select Early Upgrade Checks | <p>Select the “Early Upgrade Checks” menu to verify that the system is ready for upgrade.</p> <div> <p>Dual Image Upgrade Menu</p> <ul style="list-style-type: none"> <li>Validate Media</li> <li>Early Upgrade Checks</li> <li>Initiate Background Upgrade</li> <li>Copy USB Upgrade Image</li> <li>Exit</li> </ul> </div>   |

|    |  |  |
|----|--|--|
|    |  | <p>NOTE: Please note that the previous upgrade should be accepted before proceeding for DIU upgrade. If the previous upgrade is not accepted, then early upgrade checks will fail with the error that previous upgrade is not yet accepted.</p> <p>If the Early Upgrade Checks fail due to the NTP related alarms, then ignore the NTP alarms using the following commands:</p> <ul style="list-style-type: none"> <li>• Exit the platcfg menu.</li> <li>• Change to root user using the “su –” command.</li> <li>• vim /usr/TKLC/plat/etc/upgrade/upgrade.conf</li> <li>• Edit the following line to include the NTP related alarms. <ul style="list-style-type: none"> <li>○ EARLY_CHECK_ALARM_WHITELIST=TKSPLATMI2</li> <li>○ Add the following alarm code to ignore Storage Capacity Problem: TKSPLATMA5</li> <li>○ Add the following line for the RAID related alarms:</li> </ul> </li> </ul> <p>○ EARLY_CHECK_ALARM_WHITELIST=TKSPLATMA2</p> <p>For example – To allowlist the NTP alarm “tpdNTPDaemonNotSynchronizedWarning” which has the alarm code TKLCPLATMI10, the above-mentioned line should be edited as EARLY_CHECK_ALARM_WHITELIST=TKSPLATMI2,TKSPLATMI10</p> <p>Note: There should not be any space between two alarms i.e. between TKSPLATMI2 and TKSPLATMI10</p> <p>If the Early Upgrade Checks fail due to “Server Default Route Network Error”, then this alarm shall be allowlisted in upgrade.conf file. To allowlist the alarm which has the alarm code TKSPLATMA14, the above-mentioned line should be edited as:</p> <p>EARLY_CHECK_ALARM_WHITELIST=TKSPLATMA2,TKSPLATMI2,TKSPLATMA5,TKSPLATMI10,TKSPLATMA14,TKSPLATMA28,TKSPLATMI39</p> <p>Note: Please note that TKSPLATMA5, TKSPLATMA2, TKSPLATMI2 should always be whitelisted.</p> |
| 10 | MPS B: Navigate to the Initiate Upgrade menu | <p>Select the Initiate Background Upgrade menu and press [ENTER].</p>    |
| 11 | MPS B: Select the Upgrade Media.             | <p>The screen displays a message that it is searching for upgrade media. When the upgrade media is found, an Upgrade Media selection menu appears similar as shown in the example below.</p>   |

Select the desired upgrade media and press [ENTER].



In case there is a failure in the upgrade process, then run the following command to verify whether the raid is synced or not:

- lsblk

Key Points:

- Under a healthy, in-sync RAID, both member partitions will show the same md device.
- If the RAID is not in sync or missing a member, only one partition will show the md device.

Example of lsblk output when raid is in sync,

```
[root@Recife-A upgrade]# lsblk
NAME                                MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda                                  8:0    0 447.1G 0 disk
|-sda1                               8:1    0  512M 0 part
`-sda2                               8:2    0 446.5G 0 part
  `--md1                             9:1    0 446.4G 0 raid1
     |-vgroot-plat_root              253:0    0    4G 0 lvm /
     |-vgroot-plat_swap              253:1    0    2G 0 lvm [SWAP]
     |-vgroot-plat_usr               253:2    0   10G 0 lvm /usr
     |-vgroot-plat_var_tklc          253:3    0    8G 0 lvm /var/TKLC
     |-vgroot-plat_tmp              253:4    0    1G 0 lvm /tmp
     |-vgroot-plat_var               253:5    0    2G 0 lvm /var
     |-vgroot-logs                   253:6    0   20G 0 lvm /var/TKLC/epap/logs
     |-vgroot-db                     253:7    0 191.8G 0 lvm /var/TKLC/epap/db
     `--vgroot-free                  253:8    0 207.7G 0 lvm /var/TKLC/epap/free
sdb                                  8:16   1  28.9G 0 disk
|-sdb1                               8:17   1   2.8G 0 part
`-sdb2                               8:18   1   9.8M 0 part
sdc                                  8:32    0 447.1G 0 disk
|-sdc1                               8:33    0  512M 0 part
`-sdc2                               8:34    0 446.5G 0 part
  `--md1                             9:1    0 446.4G 0 raid1
     |-vgroot-plat_root              253:0    0    4G 0 lvm /
     |-vgroot-plat_swap              253:1    0    2G 0 lvm [SWAP]
     |-vgroot-plat_usr               253:2    0   10G 0 lvm /usr
     |-vgroot-plat_var_tklc          253:3    0    8G 0 lvm /var/TKLC
     |-vgroot-plat_tmp              253:4    0    1G 0 lvm /tmp
     |-vgroot-plat_var               253:5    0    2G 0 lvm /var
     |-vgroot-logs                   253:6    0   20G 0 lvm /var/TKLC/epap/logs
     |-vgroot-db                     253:7    0 191.8G 0 lvm /var/TKLC/epap/db
     `--vgroot-free                  253:8    0 207.7G 0 lvm /var/TKLC/epap/free
└
```

Please note that in the above raid in sync snapshot of lsblk, sdb is for USB as it shows 28.9G while sda and sdc are for HDD which is 447.1G. Hence whenever you run lsblk command, always take a note of which drive is showing USB and which drives are showing HDD.

Raid not in sync example snapshot:

```
[root@Natal-A upgrade]# lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
sda         8:0  1 28.9G 0 disk
├─sda1      8:1  1 28.9G 0 part
sdb         8:16  0 894.3G 0 disk
├─sdb1      8:17  0 512M 0 part
├─sdb2      8:18  0 893.7G 0 part
└─md1       9:1  0 893.5G 0 raid1
|-vgroot-plat_root_253:0 0 2G 0 lvm /
|-vgroot-plat_swap_253:1 0 2G 0 lvm [SWAP]
|-vgroot-plat_usr_253:2 0 8G 0 lvm /usr
|-vgroot-plat_var_tklc_253:3 0 8G 0 lvm /var/TKLC
|-vgroot-plat_tmp_253:4 0 1G 0 lvm /tmp
|-vgroot-plat_var_253:5 0 2G 0 lvm /var
|-vgroot-rt_253:6 0 68G 0 lvm /var/TKLC/epap/rt
|-vgroot-logs_253:7 0 20G 0 lvm /var/TKLC/epap/logs
|-vgroot-db_253:8 0 289.2G 0 lvm /var/TKLC/epap/db
└─vgroot-free_253:9 0 204G 0 lvm /var/TKLC/epap/free
sdc         8:32  0 894.3G 0 disk
├─sdc1      8:33  0 512M 0 part
└─sdc2      8:34  0 893.7G 0 part
```

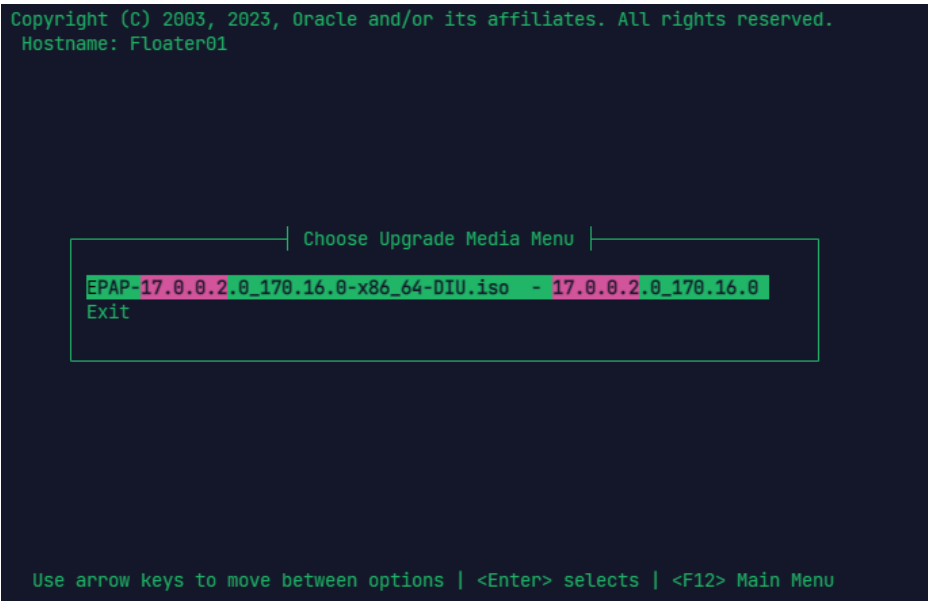
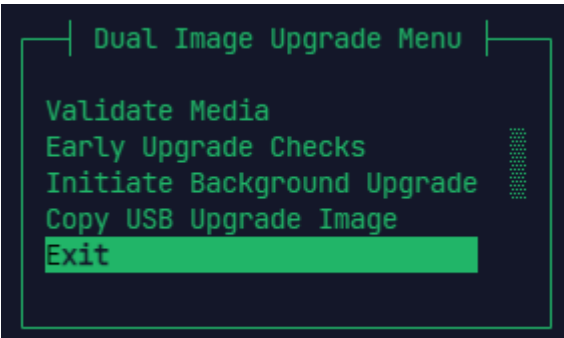
Please note that in the above raid in sync snapshot of lsblk, sda is for USB as it shows 28.9G while sdb and sdc are for HDD which is 447.1G. Hence whenever you run lsblk command, always take a note of which drive is showing USB and which drives are showing HDD. Here we are saying raid is not in sync because only sdb is showing md1 device but sdc is not showing any md device.

If the raid is not in sync, then run the following command:

```
mdadm --add /dev/md1 /dev/sdX
```

where sdX can be any of sda, sdb, or sdc according to LV configurations. Please note that sdX will never be the USB partition. This can be verified using lsblk command. In the above example, sdb and sdc are for hard disk and sda is for USB, here sdc is not in sync as it is not showing the proper md device md1. Hence the command for syncing the above raid not in sync scenario will be like given below.

```
mdadm --add /dev/md1 /dev/sdc
```

|    |  |  |
|----|--|--|
|    |  | <p>The following command can be used to check the status of the sync after running the above command.</p> <pre>[root@MPS-B upgrade]# cat /proc/mdstat Personalities : [raid1] md1 : active raid1 sdb[3] sdc2[2]       468091904 blocks super 1.2 [2/1] [U_]       [==&gt;.....] recovery = 19.1% (89824128/468091904) finish=81.5min speed=77331K/sec       bitmap: 4/4 pages [16KB], 65536KB chunk unused devices: &lt;none&gt;</pre> <p>Wait till the time recovery is not completed 100%.</p> |
| 12 | MPS B: Upgrade proceeds.<br>Apply Upgrade. | <p>Many informational messages appear on the terminal screen as the upgrade proceeds.<br/>After the background upgrade is done, the system will return to this screen.</p>  <p>After this, select [EXIT] and press [ENTER].<br/>From the Dual image Upgrade Menu, select [EXIT] and press [ENTER].</p>                    |

Exit platcfg meny and verify the status using below command, It should show "Ready to Apply upgrade"

```
/var/TKLC/backout/diUpgrade -status
```

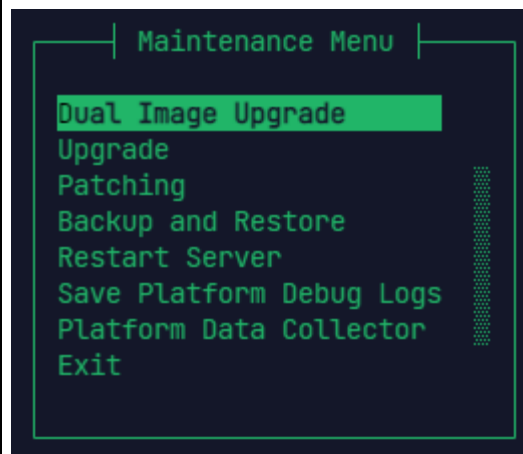
```
[root@Arica-b tmp]# /var/TKLC/backout/diUpgrade --status
```

State: Ready to Apply Upgrade

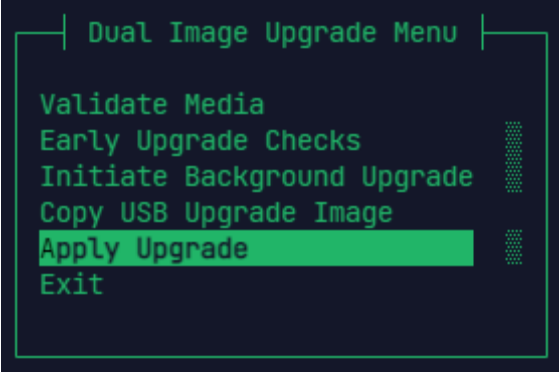
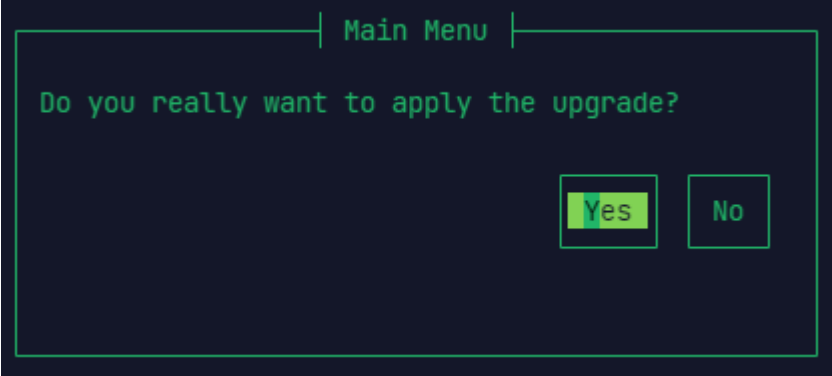
Status Messages:

- Performing early checks
- Downloading upgrade data
- Verifying image
- Performing image pre-install
- Configuring images
- Identifying resources
- Reserving image storage
- Installing image
- Verifying configuration sanity
- Performing image post-install
- Image install complete

From the platcfg menu -> select maintenance menu, select Dual Image Upgrade and then Press Enter.



From the Dual Image Upgrade Menu, select Apply Upgrade and press [ENTER]].

|    |                           |  |
|----|---------------------------|--|
|    |                           |  <p>Select YES and press ENTER.</p>  <p>When the upgrade process is complete, the server reboots.</p>   |
| 13 | MPS B: Upgrade completed. | <p>After the final reboot, the screen displays the login prompt as displayed in the example below.</p> <pre> [ 543.047224] diUpgrade[11034]: Creating alarm script: /tmp/OUTopYcJjI [ 550.076488] diUpgrade[11034]: Image Apply Complete [ 550.076687] diUpgrade[11034]: ##### [ 550.076769] diUpgrade[11034]: #          APPLY COMPLETE          # [ 550.076846] diUpgrade[11034]: ##### [ 550.076923] diUpgrade[11034]: Transitioning from 'Applying Upgrade' to 'Upgrade Applied' [ 550.219075] systemctl[21188]: Removed /etc/systemd/system/TPD.target.wants/upgrade.service. [ 569.958098] completeTasks[21254]: completeTasks started: Fri Oct 27 07:52:31 2023 [ 570.018205] completeTasks[21254]: ID: 1697182349.0 [ 570.018407] completeTasks[21254]: STATE: COMPLETED [ 570.018490] completeTasks[21254]: RESULT: SUCCESS [ 570.018566] completeTasks[21254]: CHECKPOINTS [ 570.018643] completeTasks[21254]: ----- [ 570.018725] completeTasks[21254]: main STATE: COMPLETED RESULT: SUCCESS [ 570.018801] completeTasks[21254]: STARTED: 1697182349 ENDED: 1697182350 [ 570.018881] completeTasks[21254]: STATUS LOG [ 570.018957] completeTasks[21254]: ----- [ 570.019039] completeTasks[21254]: 0 1697182349 INFO main Checkpoint started at 1697182349 [ 570.019126] completeTasks[21254]: 1 1697182349 INFO main Checkpoint started at 1697182349 [ 570.019206] completeTasks[21254]: 2 1697182350 INFO main Checkpoint finished at 1697182350 [ 570.019283] completeTasks[21254]: LOG FILE: /var/TKLC/Log/TaskMgr/completeTasks.log  Oracle Linux Server 8.8 Kernel 4.18.0-477.21.1.el8_8.x86_64 on an x86_64  Floater01 login: █ </pre> |

|    |                               |  |
|----|-------------------------------|--|
|    |                               | <p>Make sure to verify that the state is transitioned from “Applying upgrade” to “Upgrade Applied” and we get Completed Result: SUCCESS using below command.</p> <pre>/var/TKLC/backout/diUpgrade --status</pre>   |
| 14 | MPS B: log in as “root” user. | <pre>[hostname] console login: root password: password</pre>   |
| 15 | MPS B: Check the Upgrade log. | <p>Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.</p> <pre>\$ grep -i error /var/TKLC/log/upgrade/upgrade.log</pre> <p>Check the output of the upgrade log. Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix E, if the output contains any error except the following:</p> <pre>[root@Salta-B core]# grep -i error /var/TKLC/log/upgrade/upgrade.log 1673985608::ERROR: run-r1841b65093e14801be5696ea62d92ac2 is not recognized as a systemd182system service! 1673985608::ERROR: Could not stop run- r1841b65093e14801be5696ea62d92ac2! 1673985608::ERROR: service_conf reconfig failed! 1726140936::ERROR: SEQ: 83 UPTIME: 12737 BIRTH: 1726139350 TYPE: SET ALARM: TKSPLATMI2 tpdApplicationProcessError 1.3.6.1.4.1.323.5.3.18.3.1.3.2 32501 Pr ocessing Error Software Program Error HOST-RESOURCES- MIB::hrSWRunName:1.3.6.1.2.1.25.4.2.1.2:OCTET_STRING:eaglelog</pre> <pre>\$ grep -i warning /var/TKLC/log/upgrade/upgrade.log</pre> <p>Examine the output of the above command to determine if any warnings were reported.</p> <p>Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix E, if the output contains any warnings beside the following:</p> <pre>[root@Salta-B core]# grep -i error /var/TKLC/log/upgrade/upgrade.log 1673985608::ERROR: run-r1841b65093e14801be5696ea62d92ac2 is not recognized as a systemd182system service! 1673985608::ERROR: Could not stop run-r1841b65093e14801be5696ea62d92ac2! 1673985608::ERROR: service_conf reconfig failed!</pre> <pre>[root@Salta-B core]# grep -i warning /var/TKLC/log/upgrade/upgrade.log</pre> |

|    |   |  |
|----|---|--|
|    |   | <pre> 1673985030::* write: WARNING:: Could not find configured path "/var/TKLC/epap/db". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/logs". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/free". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/db". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/logs". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/free". 1673985033::useradd: warning: the home directory already exists. 1673985476::2023-01-17T19:57:57.683121Z 0 [Warning] [MY-013746] [Server] A deprecated TLS version TLSv1 is enabled for channel mysql_main 1673985478::2023-01-17T19:57:57.683144Z 0 [Warning] [MY-013746] [Server] A deprecated TLS version TLSv1.1 is enabled for channel mysql_main 1673985478::2023-01-17T19:57:57.808924Z 6 [Warning] [MY-010453] [Server] root@localhost is created with an empty password ! Please consider switching off the ---initialize-insecure option. 1673985551::WARNING: A new file was added to xml alarm files.....reparsing xml... 1673985551::WARNING: FILE: /usr/TKLC/plat/etc/alarms/alarms_mps.xml 1673985571::TKLCepap-HA #####warning: group root} does not existxi-t - using root 1726141389::WARNING: Hostname not changed because it is the same. </pre> |
| 16 | MPS B: Check that the upgrade completed successfully. | <pre> Run the command from the root user: [<b>root@Floater04 ~</b>]\$ /var/TKLC/backout/diUpgrade --status </pre>  |
| 17 | MPS B: Check that the upgrade completed successfully. | <pre> Verify that the following output is displayed. If it is not, contact My Oracle Support following the instructions on the front page or the instructions on the Appendix E. </pre>  |

|    |   |  |
|----|---|--|
|    |   | <pre>[root@Floater04 ~]# /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 - Verifying configuration sanity - Performing image post-install - Image install complete - Validating image pre-apply - Performing image pre-apply - Applying image - Performing configuration export - Performing image post-apply - Image Apply Complete</pre>  |
| 18 | Update HTTP/HTTPS variable in EuiDB   | <p>Set HTTPS_ENABLED to Yes and HTTP_ENABLED to No as HTTPS is enabled after DIU upgrade by default. If the user wants to change the configuration, they can do it through GUI after completing the DIU upgrade:<br/>Run the following command:</p> <pre>\$ uiEdit HTTPS_ENABLED Yes \$ uiEdit HTTP_ENABLED No</pre>   |
| 19 | Retrieve and restore free directory data backup taken in Procedure 15, step 6 | <p>Retrieve the backup tar file back to the local server (from remote or mate)</p> <p>Option 1 - If the backup is placed on the remote server, then follow the below steps :-</p> <ol style="list-style-type: none"> <li>1. On the local server, start an SFTP session to the remote system:<br/>\$ sftp &lt;remote_user&gt;@&lt;remote_host_or_ip&gt;</li> <li>2. In the SFTP prompt, navigate to the directory containing the backup and download it:<br/>\$ sftp&gt; cd &lt;remote_backup_directory&gt;<br/>\$ sftp&gt; lcd /var/TKLC/epap/free<br/>\$ sftp&gt; get free_&lt;hostname&gt;_&lt;YYYY-MM-DD&gt;_&lt;HHMMSS&gt;.tgz<br/>\$ sftp&gt; bye</li> </ol> <p>Option 2 - Retrieve using SCP (from mate to local)<br/>Run the following command on the local server:</p> <pre>\$ scp epapdev@mate:/var/TKLC/epap/free/free_&lt;hostname&gt;_&lt;YYYY-MM-DD&gt;_&lt;HHMMSS&gt;.tgz /var/TKLC/epap/free</pre> <p>Run the below restore command from root user to extract the archive and overwrite existing files while preserving permissions: -</p> <pre>\$ tar -C /var/TKLC/epap -xzipf</pre> |

|    |                                  |  |
|----|----------------------------------|--|
|    |                                  | <code>/var/TKLC/epap/free/free_&lt;hostname&gt;_&lt;YYYY-MM-DD&gt;_&lt;HHMMSS&gt;.tgz --<br/>overwrite</code>  |
| 20 | MPS B: Reboot after installation | Reboot the system after the “Apply Complete Process” to finally finish the installation.<br><b>\$ reboot</b>   |
| 21 | MPS B: Install Complete.         | The installation procedure is complete. If there are any issues in the upgrade, check <a href="#">Procedure A.48 Dual Image Upgrade Known Issues Fix</a> . |
| 22 | Note down the timestamp in log.  | Run the following command:<br><br><b>\$ date</b>   |
| 23 | Important Note                   | An internal disk error will be present once upgrade is done, and it will be removed only after accepting the upgrade.                                      |

## Procedure 19 DIU Upgrade server A

### Procedure 19: DIU Upgrade Server A

**Note:** Ensure that the Legacy Upgrade before DIU is accepted, otherwise it might cause an error while initiating background upgrade in DIU.

|                  |   |   |
|------------------|---|---|
| S<br>·<br>N<br>O | Steps   | <p>This procedure performs Dual Image Upgrade on the server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose beside each step number.</p> <p>If this procedure fails, contact My Oracle Support and ask for ASSISTANCE.</p>  |
| 1                | MPS A: Login prompt is displayed.                       | <p><b>&lt;hostname&gt; console login:</b></p> <p>Note: Press enter if no login prompt is displayed.</p>   |
| 2                | MPS A: Log in as "root" user.                           | <p><b>[hostname] consolelogin: root</b></p> <p><b>password: password</b></p>  |
| 3                | MPS A: Copy DIU ISO                                     | <p>Perform the procedure in <a href="#">Procedure A.12</a> or copy EPAP DIU ISO to /var/TKLC/upgrade directory.</p> <p>Make sure that only the DIU iso and patch is present in the directory.</p>   |
| 4                | Create a terminal window log in MPS A.                  | <p>If not already connected, connect to the E5-APP-B card via the serial port.</p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B A card's adapter and use it for serial access. Cable part numbers - 830-1220-xx</p>   |
| 5                | MPS A: Move all custom files and run pre upgrade script | <p>Note: NTP must be configured before starting DIU.</p> <p>NOTE: All custom files, scripts, folders need to be migrated to remote server before the DIU process is started. These need to be restored back to their place after the DIU process is completed.</p> <p><b>&lt;hostname&gt; console login: root</b></p> <p><b>password:</b></p> <p>Run allowRoot ON both the pairs before running script on mated pairs e.g.</p> <p><b>[root@MPS-A upgrade]# allowRoot ON</b></p> <p>/etc/securetty file successfully updated.</p> <p>/etc/ssh/sshd_config file successfully updated.<br/>Service sshd has been restarted but existing root ssh sessions will not be terminated.</p> <p>/etc/pam.d/su file successfully updated.</p> <p>Change permission and group of the script downloaded from</p> <p><b>[root@MPS-A tmp]# chmod +x diuPreUpgrade.sh</b></p> |

```
[root@MPS-A tmp]# chown root:root diuPreUpgrade.sh
```

NOTE:- Before running the pre-upgrade script, ensure the mount point `/var/TKLC/epap/free`` is not in active use. Specifically, verify that no interactive shells (e.g., ``bash``) or other processes have their current working directory set to `/var/TKLC/epap/free`` (or any subdirectory), as this will cause the unmount step to fail with “target is busy.”

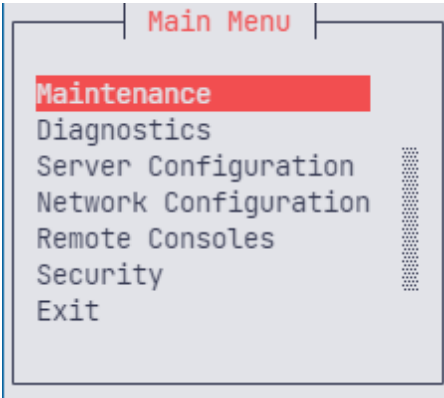
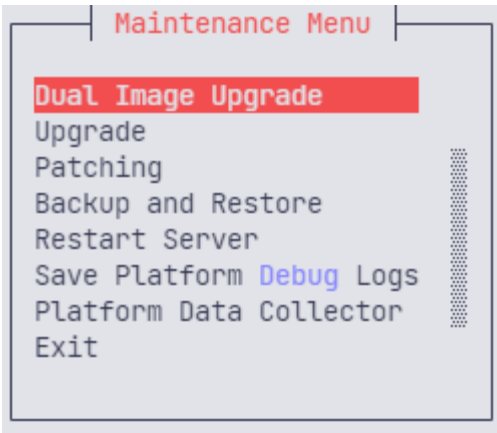
Run the pre-upgrade script

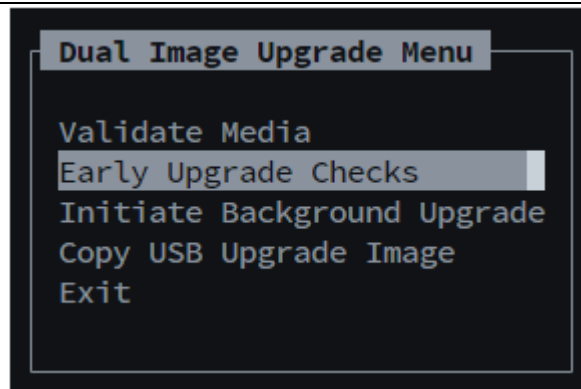
```
[root@MPS-A tmp]# ./diuPreUpgrade.sh
```

```
[INFO] Setting SPLIT_MIRROR=1 in
/usr/TKLC/plat/etc/upgrade/upgrade.conf
[INFO] + printf '%s\n' 'SPLIT_MIRROR=1' >
'/usr/TKLC/plat/etc/upgrade/upgrade.conf'
[INFO] + cat '/usr/TKLC/plat/etc/upgrade/upgrade.conf'
SPLIT_MIRROR=1
[INFO] Comcol folder /var/TKLC/epap/free/comcol does not exist or
is empty.
[INFO] Parsed: function_output='PDBonly' df_output='' for
/vgroot-db
[INFO] PDBonly detected in /etc/profile.d/TKLCplat_conf.sh;
skipping conditional DB stop block.
Created symlink /etc/systemd/system/Pdba.service -> /dev/null.
Created symlink /etc/systemd/system/mysqld@pdb.service ->
/dev/null.
[INFO] Moving comcol to /var/TKLC/epap/logs
[INFO] + mv '/var/TKLC/epap/free/comcol' '/var/TKLC/epap/logs/'
Proceeding, VG free is only 0G...
[INFO] Unmounting /var/TKLC/epap/free if mounted
[INFO] + umount '/var/TKLC/epap/free' 2>/dev/null || true
[INFO] Removing existing LV vgroot/free if present
[INFO] + lvremove -y '/dev/mapper/vgroot-free' 2>/dev/null ||
lvremove -y '/dev/vgroot/free' 2>/dev/null || true
Logical volume "free" successfully removed.
[INFO] Querying VG free space for vgroot
[INFO] VG free before create: 205.63G (int=205G)
[INFO] Allocating LV size xvalue=175G (leaving ~30G VG free)
[INFO] + lvcreate --yes -L '175G' --name 'free' 'vgroot'
Wiping ext4 signature on /dev/vgroot/free.
Logical volume "free" created.
[INFO] + mkfs.ext4 -F '/dev/mapper/vgroot-free'
mke2fs 1.46.2 (28-Feb-2021)
Discarding device blocks: done
Creating filesystem with 45875200 4k blocks and 11468800 inodes
Filesystem UUID: f672176c-bc7d-45de-b196-443e11979691
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736,
    1605632, 2654208,
    4096000, 7962624, 11239424, 20480000, 23887872

Allocating group tables: done
Writing inode tables: done
Creating journal (262144 blocks): done
Writing superblocks and filesystem accounting information: done

[INFO] + mount '/dev/mapper/vgroot-free' '/var/TKLC/epap/free'
[INFO] + chown epapdev:epap '/var/TKLC/epap/free'
[INFO] Restoring comcol back to /var/TKLC/epap/free
[INFO] + mv '/var/TKLC/epap/logs/comcol' '/var/TKLC/epap/free/'
[INFO] VG free after create: 30.63G (int=30G). Expected ~30G
remaining.
[INFO] Completed successfully.
[root@Salta-A tmp]#
```

|    |  |   |
|----|--|---|
|    |  | <p>Run vgs to make sure Free space is 30G</p> <pre>[root@MPS-A tmp]# vgs VG      #PV #LV #SN Attr   VSize   VFree vgroot   1   9   0 wz--n- &lt;442.41g 30.63g</pre>  |
| 6  | MPS A: Start platcfg utility.  | <b>\$ su - platcfg</b>  |
| 7  | <p>MPS A: Navigate to the Upgrade menu.<br/> <b>**NOTE**</b>: Make sure to select Dual Image Upgrade only.</p> | <p>The platcfg Main Menu appears.</p> <ol style="list-style-type: none"> <li>On the Main Menu, select Maintenance and press [ENTER].</li> </ol>  <p>Select the Dual Image Upgrade menu and press [ENTER].</p>  |
| 8. | MPS A: Validate ISO file.  | Validate ISO file using <a href="#">Procedure A.2</a> .   |
| 9. | MPS A: Select Early Upgrade Checks   | Select the “Early Upgrade Checks” menu to verify that the system is ready for upgrade.  |



NOTE: Please note that the previous upgrade should be accepted before proceeding for DIU upgrade. If the previous upgrade is not accepted, then early upgrade checks will fail with the error that previous upgrade is not yet accepted.

If the Early Upgrade Checks fail due to the NTP related alarms, then ignore the NTP alarms using the following commands:

- Exit the platcfg menu.
- Change to root user using the “su –” command.
- vim /usr/TKLC/plat/etc/upgrade/upgrade.conf
- Edit the following line to include the NTP related alarms.
  - EARLY\_CHECK\_ALARM\_WHITELIST=TKSPLATMI2
  - Add the following alarm code to ignore Storage Capacity Problem: TKSPLATMA5
  - Add the following line for the RAID related alarms:
- EARLY\_CHECK\_ALARM\_WHITELIST=TKSPLATMA2

For example – To allowlist the NTP alarm

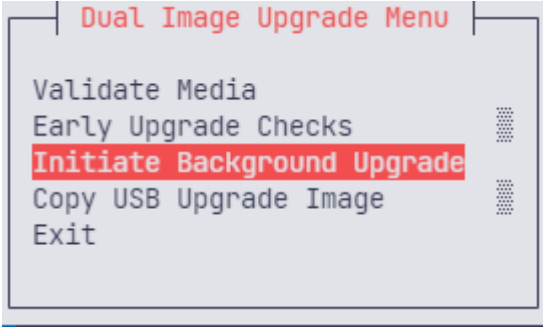
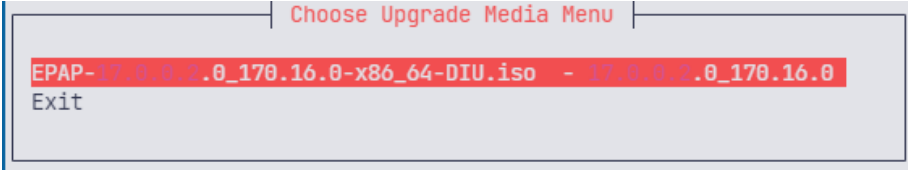
“tpdNTPDaemonNotSynchronizedWarning” which has the alarm code TKLCPLATMI10, the above-mentioned line should be edited as EARLY\_CHECK\_ALARM\_WHITELIST=TKSPLATMI2,TKSPLATMI10

Note: There should not be any space between two alarms i.e. between TKSPLATMI2 and TKSPLATMI10

If the Early Upgrade Checks fail due to “Server Default Route Network Error”, then this alarm shall be allowlisted in upgrade.conf file. To allowlist the alarm which has the alarm code TKSPLATMA14, the above-mentioned line should be edited as:

EARLY\_CHECK\_ALARM\_WHITELIST=TKSPLATMA2,TKSPLATMI2,TKSPLATMA5,TKSPLATMI10,TKSPLATMA14,TKSPLATMA28,TKSPLATMI39

Note: Please note that TKSPLATMA5, TKSPLATMA2, TKSPLATMI2 should always be whitelisted.

|    |  |   |
|----|--|---|
| 10 | MPS A: Navigate to the Initiate Upgrade menu | <p>Select the Initiate Background Upgrade menu and press [ENTER].</p>   |
| 11 | MPS A: Select the Upgrade Media.             | <p>The screen displays a message that it is searching for upgrade media. When the upgrade media is found, an Upgrade Media selection menu appears similar as shown in the example below.</p> <p>Select the desired upgrade media and press [ENTER].</p>  <p>In case there is a failure in the upgrade process, then run the following command to verify whether the raid is synced or not:</p> <ul style="list-style-type: none"> <li>• lsblk</li> </ul> <p>Key Points:</p> <ul style="list-style-type: none"> <li>• Under a healthy, in-sync RAID, both member partitions will show the same md device.</li> <li>• If the RAID is not in sync or missing a member, only one partition will show the md device.</li> </ul> <p><u>Example of lsblk output when raid is in sync,</u></p> |

```

[root@Recife-A upgrade]# lsblk
NAME                MAJ:MIN RM  SIZE RO TYPE  MOUNTPOINT
sda                  8:0  0 447.1G  0 disk
|-sda1               8:1  0 512M  0 part
`-sda2               8:2  0 446.5G  0 part
 `--md1              9:1  0 446.4G  0 raid1
    |--vgroot-plat_root 253:0  0  4G  0 lvm  /
    |--vgroot-plat_swap 253:1  0  2G  0 lvm  [SWAP]
    |--vgroot-plat_usr  253:2  0 10G  0 lvm  /usr
    |--vgroot-plat_var_tklc 253:3  0  8G  0 lvm  /var/TKLC
    |--vgroot-plat_tmp  253:4  0  1G  0 lvm  /tmp
    |--vgroot-plat_var  253:5  0  2G  0 lvm  /var
    |--vgroot-logs      253:6  0 20G  0 lvm  /var/TKLC/epap/logs
    |--vgroot-db        253:7  0 191.8G  0 lvm  /var/TKLC/epap/db
    `--vgroot-free      253:8  0 207.7G  0 lvm  /var/TKLC/epap/free
sdb                  8:16  1 28.9G  0 disk
|-sdb1               8:17  1  2.8G  0 part
`-sdb2               8:18  1  9.8M  0 part
sdc                  8:32  0 447.1G  0 disk
|-sdc1               8:33  0 512M  0 part
`-sdc2               8:34  0 446.5G  0 part
 `--md1              9:1  0 446.4G  0 raid1
    |--vgroot-plat_root 253:0  0  4G  0 lvm  /
    |--vgroot-plat_swap 253:1  0  2G  0 lvm  [SWAP]
    |--vgroot-plat_usr  253:2  0 10G  0 lvm  /usr
    |--vgroot-plat_var_tklc 253:3  0  8G  0 lvm  /var/TKLC
    |--vgroot-plat_tmp  253:4  0  1G  0 lvm  /tmp
    |--vgroot-plat_var  253:5  0  2G  0 lvm  /var
    |--vgroot-logs      253:6  0 20G  0 lvm  /var/TKLC/epap/logs
    |--vgroot-db        253:7  0 191.8G  0 lvm  /var/TKLC/epap/db
    `--vgroot-free      253:8  0 207.7G  0 lvm  /var/TKLC/epap/free

```

Please note that in the above raid in sync snapshot of lsblk, sdb is for USB as it shows 28.9G while sda and sdc are for HDD which is 447.1G. Hence whenever you run lsblk command, always take a note of which drive is showing USB and which drives are showing HDD.

Raid not in sync example snapshot:

```
[root@Natal-A upgrade]# lsblk
NAME        MAJ:MIN RM SIZE RO TYPE MOUNTPOINT
sda         8:0  1 28.9G 0 disk
├─sda1      8:1  1 28.9G 0 part
sdb         8:16 0 894.3G 0 disk
├─sdb1      8:17 0 512M 0 part
├─sdb2      8:18 0 893.7G 0 part
└─md1       9:1  0 893.5G 0 raid1
|-vgroot-plat_root_253:0 0 2G 0 lvm /
|-vgroot-plat_swap_253:1 0 2G 0 lvm [SWAP]
|-vgroot-plat_usr_253:2 0 8G 0 lvm /usr
|-vgroot-plat_var_tklc_253:3 0 8G 0 lvm /var/TKLC
|-vgroot-plat_tmp_253:4 0 1G 0 lvm /tmp
|-vgroot-plat_var_253:5 0 2G 0 lvm /var
|-vgroot-rt_253:6 0 68G 0 lvm /var/TKLC/epap/rt
|-vgroot-logs_253:7 0 20G 0 lvm /var/TKLC/epap/logs
|-vgroot-db_253:8 0 289.2G 0 lvm /var/TKLC/epap/db
└─vgroot-free_253:9 0 204G 0 lvm /var/TKLC/epap/free
sdc         8:32 0 894.3G 0 disk
├─sdc1      8:33 0 512M 0 part
└─sdc2      8:34 0 893.7G 0 part
```

Please note that in the above raid in sync snapshot of lsblk, sda is for USB as it shows 28.9G while sdb and sdc are for HDD which is 447.1G. Hence whenever you run lsblk command, always take a note of which drive is showing USB and which drives are showing HDD. Here we are saying raid is not in sync because only sdb is showing md1 device but sdc is not showing any md device.

If the raid is not in sync, then run the following command:

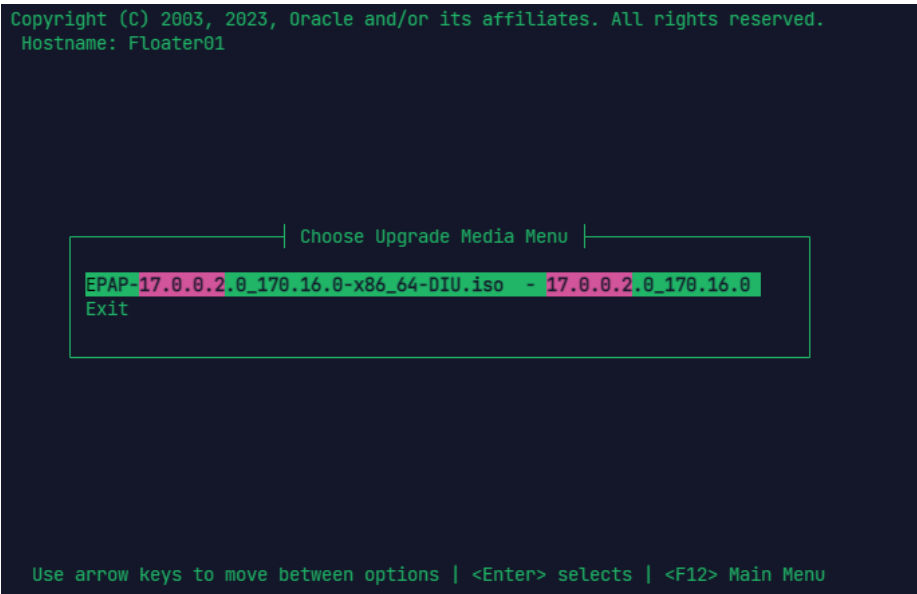
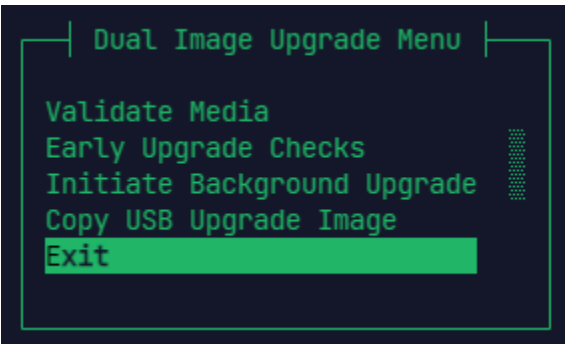
```
mdadm --add /dev/md1 /dev/sdX
```

where sdX can be any of sda, sdb, or sdc according to LV configurations. Please note that sdX will never be the USB partition. This can be verified using lsblk command. In the above example, sdb and sdc are for hard disk and sda is for USB, here sdc is not in sync as it is not showing the proper md device md1. Hence the command for syncing the above raid not in sync scenario will be like given below.

```
mdadm --add /dev/md1 /dev/sdc
```

The following command can be used to check the status of the sync after running the above command.

```
[root@Arica-A upgrade]# cat /proc/mdstat
Personalities : [raid1]
md1 : active raid1 sdb[3] sdc2[2]
468091904 blocks super 1.2 [2/1] [U_]
```

|    |  |  |
|----|--|--|
|    |  | <pre>[==&gt;.....] recovery = 19.1% (89824128/468091904) finish=81.5min speed=77331K/sec   bitmap: 4/4 pages [16KB], 65536KB chunk unused devices: &lt;none&gt;</pre> <p>Wait till the time recovery is not completed 100%.</p>  |
| 12 | <p>MPS A: Upgrade proceeds.<br/>Apply Upgrade.</p> | <p>Many informational messages appear on the terminal screen as the upgrade proceeds.<br/>After the background upgrade is done, the system will return to this screen.</p>  <p>Copyright (C) 2003, 2023, Oracle and/or its affiliates. All rights reserved.<br/>Hostname: Floater01</p> <pre>   Choose Upgrade Media Menu       EPAP-17.0.0.2_0_170.16.0-x86_64-DIU.iso - 17.0.0.2_0_170.16.0   Exit       Use arrow keys to move between options   &lt;Enter&gt; selects   &lt;F12&gt; Main Menu </pre> <p>After this, select [EXIT] and press [ENTER].<br/>From the Dual image Upgrade Menu, select [EXIT] and press [ENTER].</p>  <pre>   Dual Image Upgrade Menu       Validate Media   Early Upgrade Checks   Initiate Background Upgrade   Copy USB Upgrade Image   Exit     </pre> <p>Exit the platcfg menu and verify the status using below command, It should show "Ready to Apply upgrade"<br/>/var/TKLC/backout/diUpgrade -status</p> |

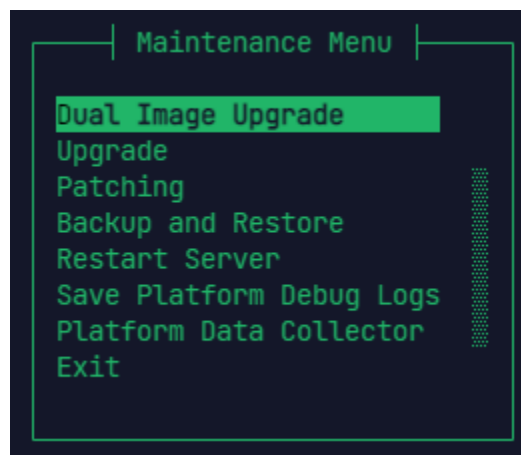
```
[root@Arica-a tmp]# /var/TKLC/backout/diUpgrade --status
```

```
State: Ready to Apply Upgrade
```

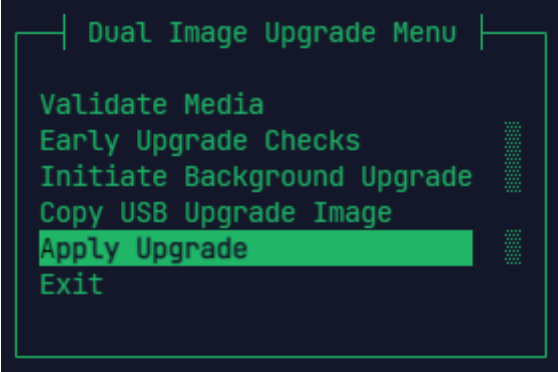

```
Status Messages:
```

- Performing early checks
- Downloading upgrade data
- Verifying image
- Performing image pre-install
- Configuring images
- Identifying resources
- Reserving image storage
- Installing image
- Verifying configuration sanity
- Performing image post-install
- Image install complete

From the platcfg menu-> select maintenance menu, select Dual Image Upgrade and then Press Enter.



From the Dual Image Upgrade Menu, select Apply Upgrade and press [ENTER]].

|  |  |  |
|--|--|--|
|  |  |  <p>Select YES and press ENTER.</p>  <p>When the upgrade process is complete, the server reboots.</p> |
|--|--|--|

|    |                           |   |
|----|---------------------------|---|
| 13 | MPS A: Upgrade completed. | <p>After the final reboot, the screen displays the login prompt as displayed in the example below.</p> <pre> [ 543.047224] diUpgrade[11034]: Creating alarm script: /tmp/OUTopYcJjI [ 550.076488] diUpgrade[11034]: Image Apply Complete [ 550.076687] diUpgrade[11034]: ##### [ 550.076769] diUpgrade[11034]: #          APPLY COMPLETE          # [ 550.076846] diUpgrade[11034]: ##### [ 550.076923] diUpgrade[11034]: Transitioning from 'Applying Upgrade' to 'Upgrade Applied' [ 550.219075] systemctl[21188]: Removed /etc/systemd/system/TPD.target.wants/upgrade.service. [ 569.958098] completeTasks[21254]: completeTasks started: Fri Oct 27 07:52:31 2023 [ 570.018205] completeTasks[21254]:      ID: 1697182349.0 [ 570.018407] completeTasks[21254]: STATE: COMPLETED [ 570.018490] completeTasks[21254]: RESULT: SUCCESS [ 570.018566] completeTasks[21254]: CHECKPOINTS [ 570.018643] completeTasks[21254]: ----- [ 570.018725] completeTasks[21254]: main STATE: COMPLETED RESULT: SUCCESS [ 570.018801] completeTasks[21254]: STARTED: 1697182349 ENDED: 1697182350 [ 570.018881] completeTasks[21254]: STATUS LOG [ 570.018957] completeTasks[21254]: ----- [ 570.019039] completeTasks[21254]: 0 1697182349 INFO main Checkpoint started at 1697182349 [ 570.019126] completeTasks[21254]: 1 1697182349 INFO main Checkpoint started at 1697182349 [ 570.019206] completeTasks[21254]: 2 1697182350 INFO main Checkpoint finished at 1697182350 [ 570.019283] completeTasks[21254]: LOG FILE: /var/TKLC/log/TaskMgr/completeTasks.Log  Oracle Linux Server 8.8 Kernel 4.18.0-477.21.1.el8_8.x86_64 on an x86_64  Floater01 login: █ </pre> |
|----|---------------------------|---|

|    |                               |  |
|----|-------------------------------|--|
|    |                               | <p>Make sure to verify that the state is transitioned from “Applying upgrade” to “Upgrade Applied” and we get Completed Result: SUCCESS using below command.</p> <pre>/var/TKLC/backout/diUpgrade --status</pre>   |
| 14 | MPS A: log in as “root” user. | <pre>[hostname] consolelogin: root password: password</pre>  |
| 15 | MPS A: Check the Upgrade log. | <p>Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.</p> <pre>\$ grep -i error /var/TKLC/log/upgrade/upgrade.log</pre> <p>Check the output of the upgrade log. Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix E, if the output contains any error except the following:</p> <pre>[root@Salta-A core]# grep -i error /var/TKLC/log/upgrade/upgrade.log 1673985608::ERROR: run-r1841b65093e14801be5696ea62d92ac2 is not recognized as a systemd196system service! 1673985608::ERROR: Could not stop run- r1841b65093e14801be5696ea62d92ac2! 1673985608::ERROR: service_conf reconfig failed! 1726140936::ERROR: SEQ: 83 UPTIME: 12737 BIRTH: 1726139350 TYPE: SET ALARM: TKSPLATMI2 tpdApplicationProcessError 1.3.6.1.4.1.323.5.3.18.3.1.3.2 32501  Processing Error Software Program Error HOST-RESOURCES- MIB::hrSWRunName:1.3.6.1.2.1.25.4.2.1.2:OCTET_STRING:eaglelog</pre> <pre>\$ grep -i warning /var/TKLC/log/upgrade/upgrade.log</pre> <p>Examine the output of the above command to determine if any warnings were reported.<br/>Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix E, if the output contains any warnings beside the following:</p> <pre>[root@Salta-A core]# grep -i error /var/TKLC/log/upgrade/upgrade.log 1673985608::ERROR: run-r1841b65093e14801be5696ea62d92ac2 is not recognized as a systemd196system service! 1673985608::ERROR: Could not stop run- r1841b65093e14801be5696ea62d92ac2! 1673985608::ERROR: service_conf reconfig failed!</pre> |

|    |   |  |
|----|---|--|
|    |   | <pre>[root@Salta-B core]# grep -i warning /var/TKLC/log/upgrade/upgrade.log 1673985030::* write: WARNING:: Could not find configured path "/var/TKLC/epap/db". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/logs". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/free". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/db". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/logs". 1673985031::* write: WARNING:: Could not find configured path "/var/TKLC/epap/free". 1673985033::useradd: warning: the home directory already exists. 1673985476::2023-01-17T19:57:57.683121Z 0 [Warning] [MY-013746] [Server] A deprecated TLS version TLSv1 is enabled for channel mysql_main 1673985478::2023-01-17T19:57:57.683144Z 0 [Warning] [MY-013746] [Server] A deprecated TLS version TLSv1.1 is enabled for channel mysql_main 1673985478::2023-01-17T19:57:57.808924Z 6 [Warning] [MY-010453] [Server] root@localhost is created with an empty password ! Please consider switching off the --initialize-insecure option. 1673985551::WARNING: A new file was added to xml alarm files.....reparsing xml... 1673985551::WARNING: FILE: /usr/TKLC/plat/etc/alarms/alarms_mps.xml 1673985571::TKLCepap-HA #####warning: group root} does not existxi-t - using root 1726141389::WARNING: Hostname not changed because it is the same.</pre> |
| 16 | MPS A: Check that the upgrade completed successfully. | Run the command from the root user:<br><pre>[root@Floater04 ~]\$ /var/TKLC/backout/diUpgrade --status</pre>  |
| 17 | MPS A: Check that the upgrade completed successfully. | Verify that the following output is displayed. If it is not, contact My Oracle Support following the instructions on the front page or the instructions on the Appendix E.   |

|    |   |   |
|----|---|---|
|    |   | <pre>[root@Floater04 ~]# /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 - Verifying configuration sanity - Performing image post-install - Image install complete - Validating image pre-apply - Performing image pre-apply - Applying image - Performing configuration export - Performing image post-apply - Image Apply Complete</pre>   |
| 18 | <p>MPS A: Unmask and Start service on mate server.</p> <p><b>NOTE- This step will be performed only on mate node for mixed and non-prov server. Skip this step in case of PDBonly server.</b></p> | <p>This step will be performed on Mixed and Non-Prov server where mate node exists. Skip this step in case of PDBonly server.</p> <p>Run the following commands for unmasking and starting the Epap and Pdba services:</p> <p><b>1. SSH to EPAP 1B. For Mixed and Nonprov setups :</b></p> <pre>[root@Osorna-A epapall]# ssh admusr@mate [admusr@Osorna-B ~]\$ su - Password: Last login: Fri Mar 6 05:12:08 EST 2026 on pts/0 [root@Osorna-B ~]#</pre> <p><b>2. Unmask, Restart and verify the status of the services:</b></p> <p><b><u>For Mixed EPAP, run below commands</u></b></p> <pre>[root@Osorna-B ~]# systemctl unmask Epap Pdba mysqld@app mysqld@pdb crond runGsConn  [root@Osorna-B ~]# systemctl restart mysqld@pdb mysqld@app Epap Pdba crond runGsConn  [root@Osorna-B ~]# systemctl status mysqld@pdb mysqld@app Epap Pdba crond runGsConn</pre> <p><b>Check if, PDBA Proxy feature is enabled on Mixed EPAP:</b></p> <pre>[root@Manaus-b epapall]# uiEdit   grep PDBA_PROXY_ENABLED</pre> |

|    |   |   |
|----|---|---|
|    |   | <p>"PDBA_PROXY_ENABLED" is set to "YES"</p> <p><b>If the PDBA_PROXY_ENABLED is set to YES, then run the below commands else skip running below commands on Mixed EPAP:</b></p> <pre>[root@Osorna-B ~]# systemctl unmask TKLCha TKLCharsync [root@Osorna-B ~]# systemctl restart TKLCha TKLCharsync [root@Osorna-B ~]# systemctl status TKLCha TKLCharsync</pre> <p><b><u>For Non-Prov EPAP, run below commands</u></b></p> <pre>[root@Osorna-B ~]# systemctl unmask Epap mysqld@app crond [root@Osorna-B ~]# systemctl restart mysqld@app Epap crond [root@Osorna-B ~]# systemctl status mysqld@app Epap crond</pre> <p><b>3. Exit from mate node back to MPS - A</b></p> <pre>[root@Osorna-B ~]# exit logout [admusr@Osorna-B ~]\$ exit logout Connection to mate closed. [root@Osorna-A epapall]#</pre> |
| 19 | Reconfiguration of syscheck   | <p>Run the following command for reconfiguration of syscheck:</p> <pre>\$ syscheck --reconfig</pre>   |
| 20 | Update HTTP/HTTPS variable in EuiDB   | <p>Set HTTPS_ENABLED to Yes and HTTP_ENABLED to No as HTTPS is enabled after DIU upgrade by default. If the user wants to change the configuration, they can do it through GUI after completing the DIU upgrade:</p> <p>Run the following command:</p> <pre>\$ uiEdit HTTPS_ENABLED Yes \$ uiEdit HTTP_ENABLED No</pre>   |
| 21 | Retrieve and restore free directory data backup taken in Procedure 15, step 6 | <p>Retrieve the backup tar file back to the local server (from remote or mate)</p> <p>Option 1 – If the backup is placed on the remote server, then follow the below steps :-</p> <ol style="list-style-type: none"> <li>1. On the local server, start an SFTP session to the remote system: <pre>\$ sftp &lt;remote_user&gt;@&lt;remote_host_or_ip&gt;</pre> </li> <li>2. In the SFTP prompt, navigate to the directory containing the backup and download it: <pre>\$ sftp&gt; cd &lt;remote_backup_directory&gt; \$ sftp&gt; lcd /var/TKLC/epap/free \$ sftp&gt; get free_&lt;hostname&gt;_&lt;YYYY-MM-DD&gt;_&lt;HHMMSS&gt;.tgz \$ sftp&gt; bye</pre> </li> </ol>   |

|    |                                  |  |
|----|----------------------------------|--|
|    |                                  | <p>Option 2 – Retrieve using SCP (from mate to local)</p> <p>Run the following command on the local server:</p> <pre>\$ scp epapdev@mate:/var/TKLC/epap/free/free_&lt;hostname&gt;_&lt;YYYY-MM-DD&gt;_&lt;HHMMSS&gt;.tgz /var/TKLC/epap/free</pre> <p>Run the below restore command to extract the archive and overwrite existing files while preserving permissions: -</p> <pre>\$ sudo tar -C /var/TKLC/epap -xzipf /var/TKLC/epap/free/free_&lt;hostname&gt;_&lt;YYYY-MM-DD&gt;_&lt;HHMMSS&gt;.tgz -overwrite</pre> |
| 22 | MPS A: Reboot after installation | <p>Reboot the system after the “Apply Complete Process” to finally finish the installation.</p> <pre>\$ reboot</pre>   |
| 23 | MPS A: Install Complete.         | The installation procedure is complete. If there are any issues in the upgrade, check <a href="#">Procedure A.48 Dual Image Upgrade Known Issues Fix</a> .   |
| 24 | Note down the timestamp in log.  | <p>Run the following command:</p> <pre>\$ date</pre>   |
| 25 | Important Note                   | An internal disk error will be present once upgrade is done, and it will be removed only after accepting the upgrade.  |

## Procedure 20 Run RTDB Converter

### Procedure 20: Run RTDB Converter

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure runs RTDB converter to update rtdb database as per new schema. This procedure should not be run on PDBonly setup.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</b></p> <p><b>**Note: This step can be run simultaneously on MPS A and MPS B</b></p> |   |
| 1.<br><input type="checkbox"/>   | <p><b>MPS A and B:</b> Log in to the server as the user “epapdev”.</p>  | <pre>&lt;hostname&gt; console login: epapdev password: &lt;password&gt;</pre> |
| 2.                               | <p><b>MPS A and B: Switch to root user.</b></p>   | <pre>[epapdev@Ithaca-a ~]\$ su - Password: &lt;password&gt;</pre>             |
| 3.<br><input type="checkbox"/>   | <p><b>MPS A and B: Start EPAP Services</b></p>  | <pre>\$ systemctl start Epap ~~ /etc/init.d/Epap start ~~</pre>               |

## Procedure 20: Run RTDB Converter

|                                |   |  |
|--------------------------------|---|--|
|                                |   | "EPAP_RELEASE" is set to "0.617"<br>EPAP application start Successful.   |
| 4.<br><input type="checkbox"/> | <b>MPS A and B:</b> Run RTDB converter script<br><br><b>Note:</b> RTDB softwares need to be running on MPS A & B in order to run the converter. | <b>\$ cd /usr/TKLC/epap/bin</b><br><br>If system is in compact architecture as noted in step 10 of 0 run the following command:<br><b>\$ ./ rtdbEpap164CompactToCompactConvertTool</b><br><br>If system is in extreme as noted in step 10 of 0 architecture run the following command:<br><b>\$ ./ rtdbEpap164ExtremeToExtremeConvertTool</b><br><br><b>Many informational Messages will be displayed on screen. If this script fails contact My Oracle Support.</b> |
| 5.<br><input type="checkbox"/> | Reboot Eagle cards.   | Perform the steps in <a href="#">Procedure 21</a> on the Eagle STP connected to the EPAP servers to reload SM cards.   |
| 6.<br><input type="checkbox"/> | Procedure is complete   | Procedure is complete.   |
| 7.<br><input type="checkbox"/> | Note down the timestamp in log.   | Run the following command:<br><b>\$ date</b>   |

## Procedure 21 Reboot EAGLE Cards

### Procedure 21: Reboot EAGLE Cards

|    |  |   |
|----|--|---|
|    | <p>This procedure reboots EAGLE cards to reload new RTDB.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b><u>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR UPGRADE ASSISTANCE.</u></b></p> |   |
| 1. | <b>EAGLE:</b> reboot all SM cards to reload new RTDB.  | <p>Note: Before rebooting EAGLE cards, check whether the EPAP software is running or not. If EPAP software is not running then start it manually by below commands. Run the below steps on EPAP:</p> <p><b>\$ systemctl status Epap</b></p> |

### Procedure 21: Reboot EAGLE Cards

|    |                                 |   |
|----|---------------------------------|---|
|    |                                 | <p>Start the EPAP software, if the above command shows that software is not running. If service EPAP shows that software is running, there is no need to run next command.</p> <p><b>\$ systemctl start Epap</b><br/>         ~~ /etc/init.d/Epap start ~~<br/>         EPAP application started.</p> <p>Login onto the connected EAGLE.</p> <p>Reboot 1 SM card on the EAGLE and verify that it comes back to an IS-NR/Active state.</p> <p>Then boot the rest of the EAGLE SM cards over 4 batches (booting 1/4 of the cards at a single time).</p> |
| 2. | Procedure is complete           | Procedure is complete.  |
| 3. | Note down the timestamp in log. | <p>Run the following command:</p> <p><b>\$ date</b></p>   |

### Procedure 22 Accept Upgrade

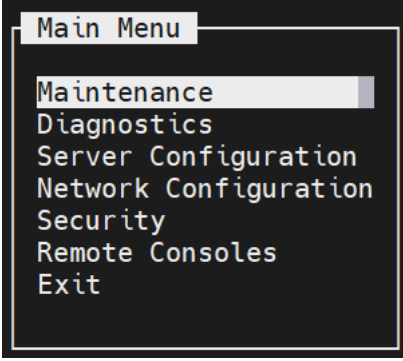
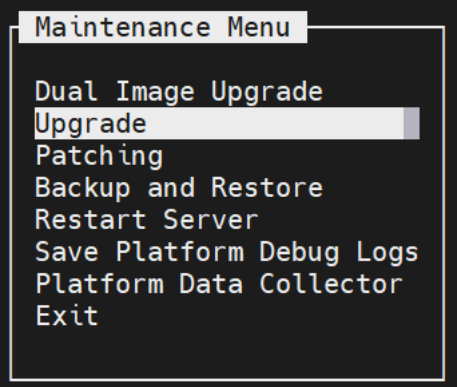
**Note:** If the upgrade is accepted, Backout cannot be performed.

#### Procedure 22: Accept Upgrade

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure accept the upgrade to perform the upgrade process.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p> |   |
| 8.<br><input type="checkbox"/>   | <p><b>MPS:</b> Login as admusr.</p>  | <p>Login as admusr if not already logged in.</p> <p><b>&lt;hostname&gt; login: admusr</b><br/> <b>Password:</b></p> <p>Note: The console logon may preced by many lines of reboot output.</p> |
| 9.<br><input type="checkbox"/>   | <p><b>MPS:</b> Verify if alarmMgr process running.</p>   | <p><b>\$ sudo ls /var/run/alarmMgr</b><br/>         If the file exists, proceed to the next step.<br/>         If the file does not exist, contact Oracle Customer Service.</p>               |

**Note:** If the upgrade is accepted, Backout cannot be performed.

**Procedure 22: Accept Upgrade**

|   |  |  |
|---|--|--|
| <p>10.<br/><input type="checkbox"/></p> | <p><b>MPS:</b> Run the platcfg menu.</p>           | <p><code>\$ sudo su – platcfg</code></p>   |
| <p>11.<br/><input type="checkbox"/></p> | <p><b>MPS:</b> Select the Maintenance submenu.</p> | <p>The platcfg <b>Main Menu</b> appears.<br/>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Main Menu" with the following options: Maintenance (highlighted with a grey bar), Diagnostics, Server Configuration, Network Configuration, Security, Remote Consoles, and Exit.</p> |
| <p>12.<br/><input type="checkbox"/></p> | <p><b>MPS:</b> Select the Upgrade submenu.</p>     | <p>Select the <b>Upgrade</b> menu and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Maintenance Menu" with the following options: Dual Image Upgrade, Upgrade (highlighted with a grey bar), Patching, Backup and Restore, Restart Server, Save Platform Debug Logs, Platform Data Collector, and Exit.</p>                           |
| <p>13.<br/><input type="checkbox"/></p> | <p><b>MPS:</b> Select the Upgrade submenu.</p>     | <p>If you have not already accepted the upgrade, do so now, otherwise skip this step.</p>  |

**Note:** If the upgrade is accepted, Backout cannot be performed.

**Procedure 22: Accept Upgrade**

|     |  |  |
|-----|--|--|
|     |  | <div style="border: 1px solid black; background-color: black; color: white; padding: 5px;"> <p style="text-align: center; margin: 0;"><b>Upgrade Menu</b></p> <ul style="list-style-type: none"> <li>Validate Media</li> <li>Early Upgrade Checks</li> <li>Initiate Upgrade</li> <li>Copy USB Upgrade Image</li> <li>Non Tekelec RPM Management</li> <li style="background-color: #cccccc;">Accept Upgrade</li> <li>Reject Upgrade</li> <li>Exit</li> </ul> </div> <div style="background-color: black; color: white; padding: 5px; margin-top: 10px;"> <pre>Setting POST_UPGRADE_ACTION to ACCEPT in upgrade info. Cleaning backout directory. Cleaning Upgrade Accept/Reject alarm. Cleaning message from MOTD. No patch pending alarm on server so no MOTD update. Cleaning up RPM config backup files ... Checking / Checking /usr Checking /tmp Checking /var Checking /var/TKLC Checking /var/TKLC/epap/rt Checking /var/TKLC/epap/logs Checking /var/TKLC/epap/db Checking /var/TKLC/epap/free Starting cleanup of RCS repository. INFO: Removing '/etc/my.cnf.d/client.cnf' from RCS repository INFO: Removing '/etc/pam.d/system-auth' from RCS repository INFO: Removing '/etc/pam.d/password-auth' from RCS repository  PRESS ANY KEY TO RETURN TO THE PLATCFG MENU.</pre> </div> <p style="margin-top: 20px;"><b>Note:</b> If you still observe the accept upgrade message even after the disks get mirrored properly after accepting the upgrade for the first time, follow the steps mentioned in APPENDIX A.30 to remove the false accept upgrade alarm from the system.</p> |
| 14. | <input type="checkbox"/> Procedure is complete | Procedure is complete.   |

**Note:** If the upgrade is accepted, Backout cannot be performed.

**Procedure 22: Accept Upgrade**

|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
| 15.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><b>\$ date</b> |
|---------------------------------|---------------------------------|--|

**Procedure 23 Keys exchange between active and standby PDB**

**Procedure 23: Key Exchange Between Active PDB and Standby PDB**

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure Exchange the keys between active and remote PDB.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p> |   |
| 1.                               | <b>MPS A:</b> Login to Active PDB EPAP as the user "epapdev".  | If not already logged-in, then login at MPS A of active PDB EPAP:<br><b>&lt;hostname&gt; console login: epapdev<br/>password: &lt;password&gt;</b>  |
| 2.<br><input type="checkbox"/>   | <b>MPS A:</b> Verify that PDB entry are present in known_hosts file.   | Run following command to verify that pdb entry present in known_hosts file:<br><b>\$ cat .ssh/known_hosts</b><br><br>If entry is present skip next step   |
| 3.<br><input type="checkbox"/>   | <b>MPS A:</b> Exchange the keys from <b>Active PDB</b>   | <p>Run the following command on Active PDB:<br/><b>\$ ssh epapdev@&lt;remote PDB IP&gt;</b><br/><b>Are you sure you want to continue connecting (yes/no)? &lt;yes&gt;</b><br/><b>Password:</b></p> <p>Snapshot for reference:<br/>[epapdev@Recife-A ~]\$ ssh epapdev@10.75.141.104<br/>FIPS integrity verification test failed.<br/>The authenticity of host '10.75.141.104 (10.75.141.104)' can't be established.<br/>RSA key fingerprint is<br/>d4:d5:94:c6:57:1a:30:25:bc:b0:67:f9:f7:07:c6:68.<br/>Are you sure you want to continue connecting (yes/no)?<br/><b>yes</b><br/>Warning: Permanently added '10.75.141.104' (RSA) to the list of known hosts.<br/>epapdev@10.75.141.104's password:</p> |
| 4.                               | <b>MPS A:</b> Login to Standby PDB EPAP as the user "epapdev".   | If not already logged-in, then login at MPS A of standby PDB EPAP:<br><b>&lt;hostname&gt; console login: epapdev<br/>password: &lt;password&gt;</b>   |

### Procedure 23: Key Exchange Between Active PDB and Standby PDB

|                                |   |  |
|--------------------------------|---|--|
| 5.<br><input type="checkbox"/> | <b>MPS:</b> Exchange the keys from <b>Standby PDB</b> | Repeat the step 2 and step3 to exchange the keys from standby PDB as well. |
| 6.<br><input type="checkbox"/> | Procedure is complete                                 | Procedure is complete.   |
| 7.<br><input type="checkbox"/> | Note down the timestamp in log.                       | Run the following command:<br><b>\$ date</b>                               |

**THIS COMPLETES THE UPGRADE**

## 8 SOFTWARE RECOVERY PROCEDURES

Run this section only if there is a problem and it is desired to revert back to the pre-upgrade version of the software.

### 8.1 Backout Setup

The reason to Run a backout has a direct impact on any backout preparation that must be done. Since the reason cannot be known ahead of time, no definitive procedure can be written.

My Oracle Support personnel will have to have login access to the affected MPS server, probe the server for the root cause of the problem, and Run whatever setup or cleanup is necessary in order to prepare the MPS server for backout.

### 8.2 Perform Backout

Regardless of the initial cause of the upgrade problem, once all necessary corrective steps have been taken to prepare for the backout, then the following procedure can be followed to perform a backout. Refer to section 2.2 and section 2.4 for the Backout process overview.

#### Procedure 24 Server B Backout

##### Procedure 24: Server B Backout

|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure provides instructions to perform backout on MPS B server.<br><br>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.<br><br><b>Note: Run this procedure if only MPS B has been upgraded successfully and MPS A is still at the pre-upgrade release.</b><br><br>Note: If the upgrade has been accepted, this procedure cannot be followed. |  |
| 1.<br><input type="checkbox"/>   | Terminate all previous connections (ssh).  | If not already connected, connect to the E5-APP-B card via the serial port.<br><br>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B A cards adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b><br><br>Skip to step 5, if connected through serial console. |

### Procedure 24: Server B Backout

|                                |  |   |
|--------------------------------|--|---|
| 2.<br><input type="checkbox"/> | Create a terminal window and establish a connection by logging into MPS A.<br><br>Log in to MPS A.                                 | In a newly created terminal window labeled "MPS B – from MPS A", connect directly into MPS A.<br><br><b># ssh admusr@&lt;MPS A&gt;</b><br><b>Password: &lt;password&gt;</b> |
| 3.<br><input type="checkbox"/> | <b>MPS A:</b> Verify that the state of PDBA Proxy Feature is No.<br><br><b>Note:</b> Skip this step for Non-Prov and PDBonly EPAP. | <b># sudo su - epapconfig</b><br><br>warning: smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904.   |

```

/-----EPAP Configuration Menu-----\
/-----\
| 1 | Display Configuration |
|-----|
| 2 | Configure Network Interfaces Menu |
|-----|
| 3 | Set Time Zone |
|-----|
| 4 | Exchange Secure Shell Keys |
|-----|
| 5 | Change Password |
|-----|
| 6 | Platform Menu |
|-----|
| 7 | Configure NTP Server |
|-----|
| 8 | PDB Configuration Menu |
|-----|
| 9 | Security |
|-----|
| 10 | SNMP Configuration |
|-----|
| 11 | Configure Alarm Feed |
|-----|
| 12 | Configure Query Server |
|-----|
| 13 | Configure Query Server Alarm Feed |
|-----|
| 14 | Configure SNMP Agent Community |
|-----|
| 15 | Mate Disaster Recovery |
|-----|
| e | Exit |
\-----\

```

```

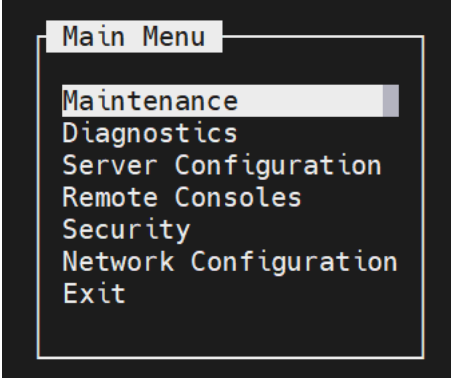
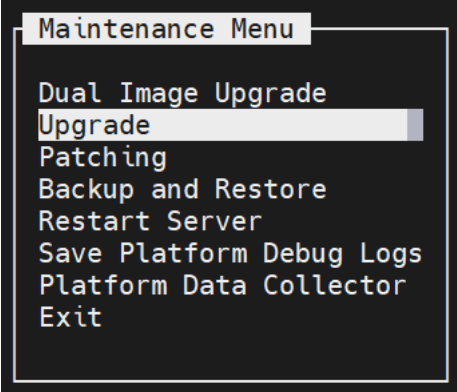
Enter Choice: 1
EPAP A Provisioning Network IP Address = 192.168.61.115
EPAP B Provisioning Network IP Address = 192.168.61.116
Provisioning Network Netmask           = 255.255.255.0
Provisioning Network Default Router    = 192.168.61.1
EPAP A Backup Prov Network IP Address = Not configured
EPAP B Backup Prov Network IP Address = Not configured
Backup Prov Network Netmask           = Not configured
Backup Prov Network Default Router    = Not configured
EPAP A Sync Network Address           = 192.168.2.100
EPAP B Sync Network Address           = 192.168.2.200
EPAP A Main DSM Network Address       = 192.168.120.100
EPAP B Main DSM Network Address       = 192.168.120.200
EPAP A Backup DSM Network Address     = 192.168.121.100
EPAP B Backup DSM Network Address     = 192.168.121.200
EPAP A HTTP Port                      = 80
EPAP B HTTP Port                      = 80
EPAP A HTTP SuExec Port               = 8001
EPAP B HTTP SuExec Port               = 8001
EPAP A Banner Connection Port         = 8473
EPAP B Banner Connection Port         = 8473

```

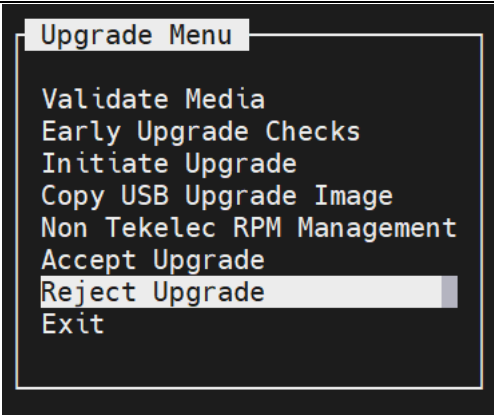
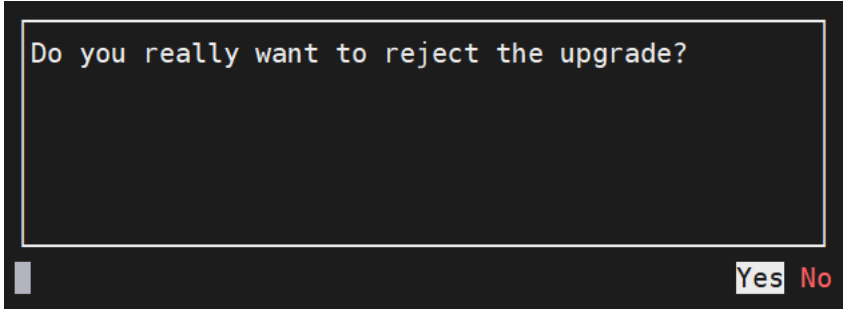
## Procedure 24: Server B Backout

|    |   |   |
|----|---|---|
|    |   | <p>           EPAP A Static NAT Address = Not configured<br/>           EPAP B Static NAT Address = Not configured<br/>           PDBI Port = 5873<br/>           Remote MPS A Static NAT Address = Not configured<br/>           Remote MPS A HTTP Port = 80<br/>           Local Provisioning VIP = 192.168.15.152<br/>           Remote Provisioning VIP = 192.168.15.172<br/>           Local PDBA Address = 192.168.15.115<br/>           Remote PDBA Address = 192.168.16.115<br/>           Remote PDBA B Address = 192.168.16.116<br/>           Time Zone = America/New_York<br/>           PDB Database = Exists<br/>           Preferred PDB = Standby<br/>           Allow updates from alternate PDB = Yes<br/>           Auto DB Recovery Enabled = Yes<br/>           PDBA Proxy Enabled = <b>Yes</b> </p> <p>If PDBA Proxy Enabled = Yes then <b>Follow 0 on both PDBA Active and Standby for dual PDBA setup to disable EPAP VIP and PDBA proxy features.</b></p> <p>Otherwise, if PDBA Proxy Enabled = No, then proceed with the next step.</p> |
| 4. | <input type="checkbox"/> <b>MPS A:</b><br><b>Clear PDB replication logs</b>                                       | <p>If PDBA Proxy Enabled = Yes then Run Procedure A.26 to clear replication logs</p> <p>Otherwise, if PDBA Proxy Enabled = No, then skip this step.</p>   |
| 5. | <input type="checkbox"/> <b>MPS A:</b> Start screen session<br><br><b>MPS A:</b> Connect to the console of MPS B. | <p>Run the following commands to start screen and establish a console session to MPS B.</p> <p><b>\$ screen -L</b></p> <p>Run the following command on E5-APP-B:</p> <p><b>\$ sudo minicom mate</b><br/>         If above command fails then refer to <a href="#">Procedure A.24</a></p>  |
| 6. | <input type="checkbox"/> <b>MPS B:</b> Login prompt is displayed.   | <p>&lt;hostname&gt; console login:</p> <p>Note: Hit enter if no login prompt is displayed.</p>  |
| 7. | <input type="checkbox"/> <b>MPS B:</b> Log in to the server as user "admusr".                                     | <p>If not already logged-in, then log in.</p> <p><b>&lt;hostname&gt; console login: admusr</b><br/> <b>Password: &lt;password&gt;</b></p>   |

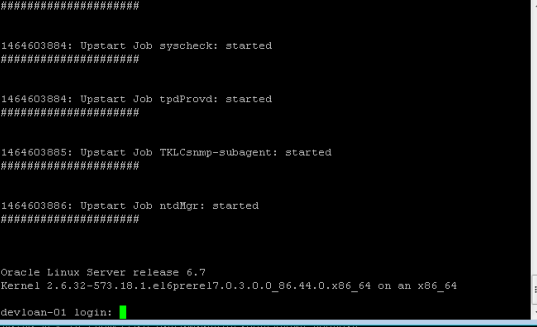
**Procedure 24: Server B Backout**

|   |   |   |
|---|---|---|
| <p>8.<br/><input type="checkbox"/></p>  | <p><b>MPS B:</b> Run the platcfg menu</p>                     | <p><b>\$ sudo su - platcfg</b></p>  |
| <p>9.<br/><input type="checkbox"/></p>  | <p><b>MPS B:</b> Select the Maintenance / Upgrade submenu</p> | <p>The platcfg <b>Main Menu</b> appears.<br/>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER]. Then select <b>Upgrade</b> menu and press [ENTER].</p> <div style="text-align: center;">   </div> |
| <p>10.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Reject Upgrade</p>                           | <p>Select the "Reject Upgrade" menu and press [ENTER].</p>  |

## Procedure 24: Server B Backout

|                                     |   |  |
|-------------------------------------|---|--|
|                                     |   | <br> <p><b>Note:</b> USB should be removed before initiating the backout on the server otherwise the system will not recover properly and will indicate a drive failure during backout.</p>   |
| <p>11. <input type="checkbox"/></p> | <p><b>MPS B:</b> Backout proceeds.</p>  | <p>Many informational messages will come across the terminal screen as the backout proceeds.</p> <p>Finally, after backout is complete, a message will be displayed stating that a reboot is required.</p> <p>The server will be at runlevel 3 and no applications are running. Proceed to the next step to verify the backout and manually reboot the server.</p> |
| <p>12. <input type="checkbox"/></p> | <p><b>MPS B:</b> Verify the Backout</p> | <p>Examine the upgrade logs in the directory <code>/var/TKLC/log/upgrade</code> and verify that no errors were reported.</p> <pre># grep -i error /var/TKLC/log/upgrade/upgrade.log</pre> <p>Examine the output of the above commands to determine if any errors were reported.</p> <p>Refer to <a href="#">Section 3.1.16</a> to know more about logging.</p>     |

## Procedure 24: Server B Backout

|   |   |  |
|---|---|--|
| <p>13.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Verify the Backout.</p>                    | <p>If the backout was <i>not</i> successful and errors were recorded in the logs, then contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section for further instructions.</p> <p>If the backout <i>was</i> successful, then continue with the following step.</p>  |
| <p>14.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Reboot the MPS.</p>                        | <p>Perform the following commands to reboot the MPS:</p> <pre># sudo init 6</pre>  |
| <p>15.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Reboot completed.</p>                      | <p>After the reboot, the screen will display the login prompt, as shown in the example below.</p>   |
| <p>16.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Verify Health of MPS B.</p>                | <p>Follow 0 on MPS B to verify the health of MPS B.</p>  |
| <p>17.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Sync the time on both MPS A and MPS B.</p> | <p>Sync the time on both MPS A and B if it is different.</p> <p>Login to MPS A:<br/> <b>&lt;hostname&gt; console login: epapdev</b><br/> <b>Password: &lt;password&gt;</b></p> <p>Check date time on MPS A using following command:<br/> <b>\$ date</b><br/>     Sat Jul 7 01:35:18 EDT 2018</p> <p>Login to MPS B:<br/> <b>&lt;hostname&gt; console login: epapdev</b><br/> <b>Password: &lt;password&gt;</b></p> <p>Check date time on MPS B using following command:<br/> <b>\$ date</b><br/>     Sat Jul 7 01:35:18 EDT 2018</p> <p>If both are not same then set the date time value on MPS B same as of MPS A.<br/>     Use following command:</p> |

## Procedure 24: Server B Backout

|                                     |   |  |
|-------------------------------------|---|--|
|                                     |   | <p>First switch user to root:<br/> <b>\$ su – root</b><br/> <b>Password:</b></p> <p>Run command to set date on MPS B as bellow:</p> <p># date -s &lt;data-time of MPS A&gt;</p> <pre>[root@Natal-B ~]# date -s "Sat Jul 7 02:05:41 EDT 2018" Sat Jul 7 02:05:41 EDT 2018 [root@Natal-B ~]#</pre> <p>Done.</p>  |
| <p>18. <input type="checkbox"/></p> | <p><b>MPS B:</b> Clear MySQL replication error banner message, if any</p> | <p>Run the following command to check for MySQL replication error:<br/> <b>\$ manageBannerInfo -l</b></p> <p>Examine the output of the above command to determine if any errors were reported related to MySQL replication such as:</p> <p>MySQL data replication error detected; Attempting to restart<br/> Attempt to restart MySQL replication failed</p> <p>Run the following command to copy the EuiDB database from B server to A server to clear any of the above observed MySQL replication error.</p> <p>Note: This utility should be run only with epapdev user.</p> <pre>\$ /usr/TKLC/epap/config/resetReplication Resetting MySql Replication This script will fix EuiDB replication by copying the database from one side of the pair to the other side and then resetting the MySql replication pointers. Are you sure you want to reset replication? (y/n) y Which side do you want to copy FROM? (A/B) [B]: B Copy the EuiDB from B to A? (y/n) y Removing the index and info files from EPAP A Replication files successfully removed from the mate server. Connecting to local DB Connecting to mate DB Copying EuiDB to mate Stopping local slave Stopping mate slave</pre> |

## Procedure 24: Server B Backout

|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
|                                 |                                 | <p>Resetting local master<br/> Resetting mate master<br/> Resetting local slave<br/> Resetting mate slave<br/> Starting local slave<br/> Starting mate slave<br/> Resetting MySQL Replication Completed</p> <p>If there is a failure in resetReplication, Run following commands:</p> <pre>\$ mysql -uroot -p&lt;MySQL_root_password&gt; -e "GRANT ALL ON EuIDB.* to elapdev@localhost"</pre> <pre>\$ mysql -uroot -p&lt;MySQL_root_password&gt; -e "GRANT ALL ON EuIDB.* to elapdev@mate"</pre> <p>Run the following command to verify that the banner messages related to the replication error are cleared after some time.</p> <pre># manageBannerInfo -l</pre>  |
| 19.<br><input type="checkbox"/> | MPS B: Verify Health of MPS B   | <p>Run 0 on MPS B to verify the health of MPS B.</p> <p>If backout of major upgrade was performed, the syscheck utility will report the "3000000000000002 – Server Internal Disk Error" alarm as the disk mirroring is in progress.</p> <p>The alarm will be cleared after the completion of disk mirroring.</p> <p>May also report the following:</p> <ul style="list-style-type: none"> <li>* defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure</li> <li>* defaultroute: FAILURE:: ping6 return non-zero code.</li> <li>* defaultroute: FAILURE:: MAJOR::300000000002000 -- Server Default Route Network Error</li> <li>* defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged!</li> </ul> |
| 20.<br><input type="checkbox"/> | Reconnect console cable.        | <p>On E5-APP-B card, reconnect the console cable between the serial port labeled 'S0' on E5-APP-B B card's adapter and the serial port labeled 'S1' on the E5-APP-B A card's adapter. <b>Cable part numbers - 830-1220-xx</b></p>  |
| 21.<br><input type="checkbox"/> | Procedure complete.             | This procedure is complete.  |
| 22.<br><input type="checkbox"/> | Note down the timestamp in log. | <p>Run the following command:</p> <pre>\$ date</pre>   |

**The application should now be running at the original software release level**

## Procedure 25 Backout both Server A and B

### Procedure 25: Backout Both MPS A and B

|                                  |   |  |
|----------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure provides instructions to perform backout on both MPS A and MPS B servers.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>Note: Run this procedure only if both MPS A and MPS B have been upgraded or partially upgraded and you wish to backout both servers to the previous version.</b></p> <p><b>Note: If the upgrade has been accepted, this procedure cannot be performed.</b></p> <p><b>Note: Database changes post upgrade and before backout might be lost after performing backout procedure</b></p> |  |
| 1.<br><input type="checkbox"/>   | <p>Terminate all previous connections (ssh).</p>  | <p>If not already connected, connect to the E5-APP-B card via the serial port.</p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B B card's adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p> <p>Skip to step 6, if connected through serial console.</p> |
| 2.<br><input type="checkbox"/>   | <p>Create a terminal window and establish a connection by logging into MPS B.</p> <p>Log into MPS B.</p>  | <p>In a newly created terminal window labeled "MPS A – from MPS B", connect directly into MPS B.</p> <p><b># ssh admusr@&lt;MPS B&gt;</b><br/><b>Password: &lt;password&gt;</b></p>  |
| 3.<br><input type="checkbox"/>   | <p><b>MPS B:</b> Start screen session.</p> <p><b>MPS B:</b> Connect to the console of MPS A.</p>  | <p>Run the following commands to start screen and establish a console session to MPS A.</p> <p><b>\$ screen -L</b></p> <p>Run the following command on E5-APP-B:</p> <p><b>\$ sudo minicom mate</b><br/>If above command fails then refer to Procedure A.24.</p>   |
| 4.<br><input type="checkbox"/>   | <p><b>MPS A:</b> Login prompt is displayed.</p>   | <p>&lt;hostname&gt; console login:</p> <p>Note: Hit enter if no login prompt is displayed.</p>   |

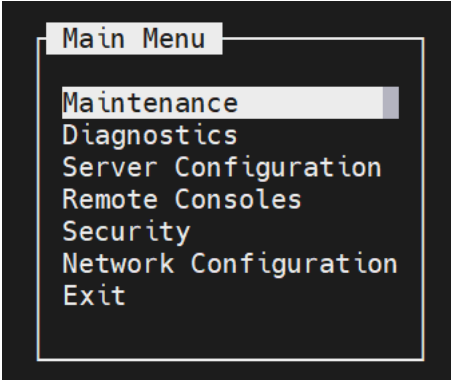
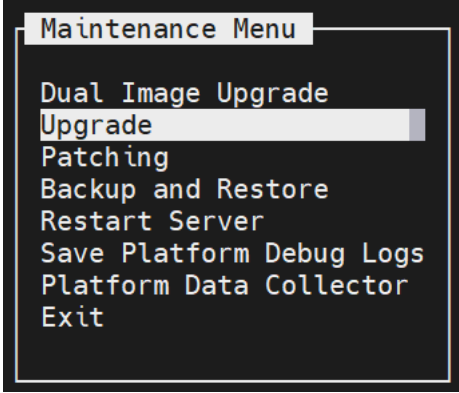
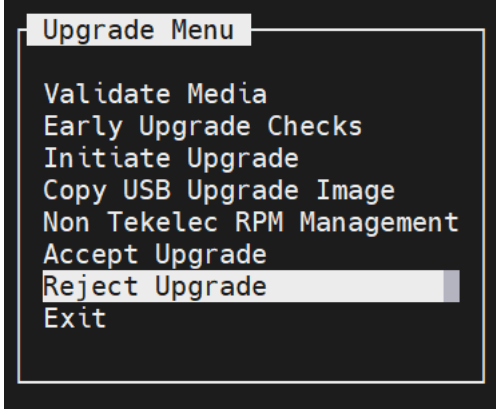
**Procedure 25: Backout Both MPS A and B**

|  |   |  |
|--|---|--|
| <p>5.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Log in to the server as user "admusr".</p>   | <p>Log in as 'admusr'<br/> <code>&lt;hostname&gt; console login: admusr</code><br/> <code>Password: &lt;password&gt;</code></p>  |
| <p>6.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Verify that the state of PDBA Proxy Feature is No.</p> <p><b>Note:</b> Skip this step for Non-Prov and PDBonly EPAP.</p> | <pre># sudo su - epapconfig  Warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904.  /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration                   -----    2   Configure Network Interfaces Menu       -----    3   Set Time Zone                           -----    4   Exchange Secure Shell Keys              -----    5   Change Password                         -----    6   Platform Menu                           -----    7   Configure NTP Server                    -----    8   PDB Configuration Menu                 -----    9   Security                                -----   10   SNMP Configuration                     -----   11   Configure Alarm Feed                    -----   12   Configure Query Server                  -----   13   Configure Query Server Alarm Feed       -----   14   Configure SNMP Agent Community          -----   15   Mate Disaster Recovery                  -----    e   Exit                                  \-----/  Enter Choice: 1 EPAP A Provisioning Network IP Address = 192.168.61.115 EPAP B Provisioning Network IP Address = 192.168.61.116 Provisioning Network Netmask          = 255.255.255.0</pre> |

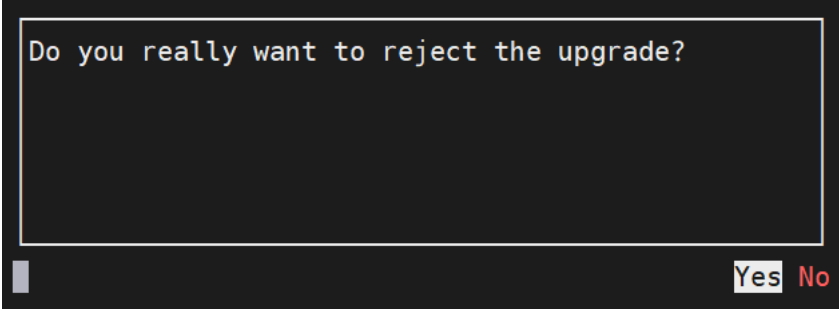
**Procedure 25: Backout Both MPS A and B**

|    |   |  |
|----|---|--|
|    |   | <p>Provisioning Network Default Router = 192.168.61.1<br/>         EPAP A Backup Prov Network IP Address = Not configured<br/>         EPAP B Backup Prov Network IP Address = Not configured<br/>         Backup Prov Network Netmask = Not configured<br/>         Backup Prov Network Default Router = Not configured<br/>         EPAP A Sync Network Address = 192.168.2.100<br/>         EPAP B Sync Network Address = 192.168.2.200<br/>         EPAP A Main DSM Network Address = 192.168.120.100<br/>         EPAP B Main DSM Network Address = 192.168.120.200<br/>         EPAP A Backup DSM Network Address = 192.168.121.100<br/>         EPAP B Backup DSM Network Address = 192.168.121.200<br/>         EPAP A HTTP Port = 80<br/>         EPAP B HTTP Port = 80<br/>         EPAP A HTTP SuExec Port = 8001<br/>         EPAP B HTTP SuExec Port = 8001<br/>         EPAP A Banner Connection Port = 8473<br/>         EPAP B Banner Connection Port = 8473<br/>         EPAP A Static NAT Address = Not configured<br/>         EPAP B Static NAT Address = Not configured<br/>         PDBI Port = 5873<br/>         Remote MPS A Static NAT Address = Not configured<br/>         Remote MPS A HTTP Port = 80<br/>         Local Provisioning VIP = 192.168.15.152<br/>         Remote Provisioning VIP = 192.168.15.172<br/>         Local PDBA Address = 192.168.15.115<br/>         Remote PDBA Address = 192.168.16.115<br/>         Remote PDBA B Address = 192.168.16.116<br/>         Time Zone = America/New_York<br/>         PDB Database = Exists<br/>         Preferred PDB = Standby<br/>         Allow updates from alternate PDB = Yes<br/> <del>Auto DB Recovery Enabled = Yes</del><br/> <del>PDBA Proxy Enabled = Yes</del></p> <p>If PDBA Proxy Enabled = Yes then <b>Run 0 on both PDBA Active and Standby for dual PDBA setup to disable EPAP VIP and PDBA proxy features.</b></p> <p>Otherwise, if PDBA Proxy Enabled = No, then proceed with the next step.</p> |
| 7. | <input type="checkbox"/> <b>MPS A:</b><br><b>Clear PDB replication logs</b>     | <p>If PDBA Proxy Enabled = Yes then Run Procedure A.26 to clear replication logs</p> <p>Otherwise, if PDBA Proxy Enabled = No, then skip this step.</p>  |
| 8. | <input type="checkbox"/> <b>MPS A:</b> Run the platcfg menu                     | <p><b>\$ sudo su - platcfg</b></p>   |
| 9. | <input type="checkbox"/> <b>MPS A:</b> Select the Maintenance / Upgrade submenu | <p>The platcfg <b>Main Menu</b> appears.</p> <p>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER]. Then select <b>Upgrade</b> menu and press [ENTER].</p>   |

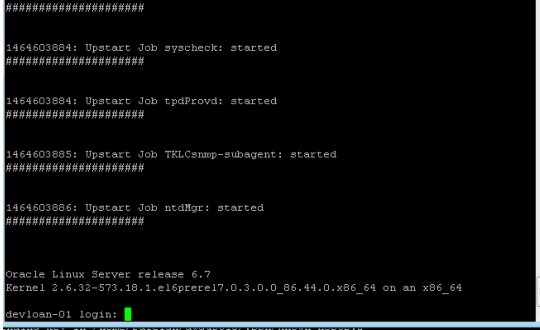
**Procedure 25: Backout Both MPS A and B**

|                                     |                                     |   |
|-------------------------------------|-------------------------------------|---|
|                                     |                                     |  <pre> Main Menu ----- Maintenance Diagnostics Server Configuration Remote Consoles Security Network Configuration Exit           </pre><br> <pre> Maintenance Menu ----- Dual Image Upgrade Upgrade Patching Backup and Restore Restart Server Save Platform Debug Logs Platform Data Collector Exit           </pre> |
| <p>10. <input type="checkbox"/></p> | <p><b>MPS A:</b> Reject Upgrade</p> | <p>Select the "Reject Upgrade" menu and press [ENTER].</p>  <pre> Upgrade Menu ----- Validate Media Early Upgrade Checks Initiate Upgrade Copy USB Upgrade Image Non Tekelec RPM Management Accept Upgrade Reject Upgrade Exit           </pre>   |

## Procedure 25: Backout Both MPS A and B

|                                     |  |  |
|-------------------------------------|--|--|
|                                     |  |  <p><b>Note:</b> USB should be removed before initiating the backout on the server otherwise the system will not recover properly and will indicate a drive failure during backout.</p>  |
| <p>11. <input type="checkbox"/></p> | <p><b>MPS A:</b> Backout proceeds.</p>   | <p>Many informational messages will come across the terminal screen as the backout proceeds.</p> <p>Finally, after backout is complete, a message will be displayed stating that a reboot is required.</p> <p>The server will be at runlevel 3 and no applications are running. Proceed to the next step to verify the backout and manually reboot the server.</p>   |
| <p>12. <input type="checkbox"/></p> | <p><b>MPS A:</b> Verify the Backout.</p> | <p>Examine the upgrade logs in the directory <code>/var/TKLC/log/upgrade</code> and verify that no errors were reported.</p> <pre># grep -i error /var/TKLC/log/upgrade/upgrade.log # grep -i error /var/TKLC/log/upgrade/ugwrap.log</pre> <p>Examine the output of the above commands to determine if any errors were reported.</p> <p>Refer to <a href="#">section 3.7</a> to know more about logging.</p> |
| <p>13. <input type="checkbox"/></p> | <p><b>MPS A:</b> Verify the Backout.</p> | <p>If the backout was <b>not</b> successful and errors were recorded in the logs, then contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section for further instructions.</p> <p>If the backout <b>was</b> successful, then enter continue with the following steps:</p>   |
| <p>14. <input type="checkbox"/></p> | <p><b>MPS A:</b> Reboot the MPS.</p>     | <p><b>Perform this step only on a backout of an incremental upgrade.</b></p> <p>Perform the following commands to reboot the MPS:</p> <pre># init 6</pre>  |

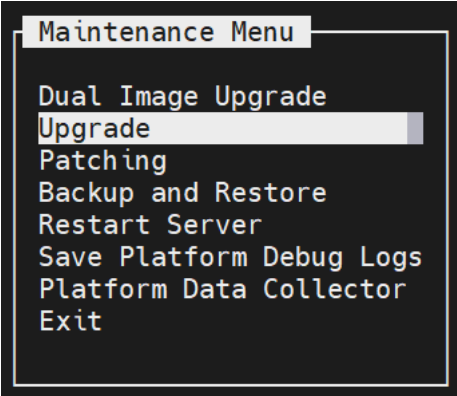
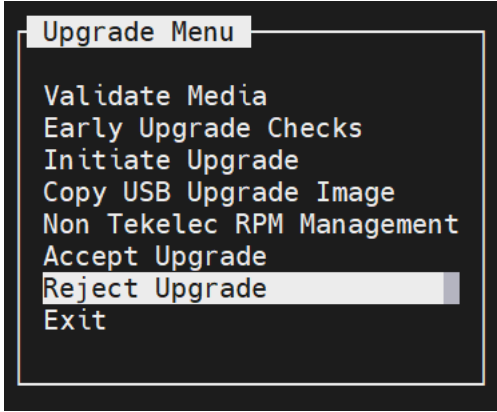
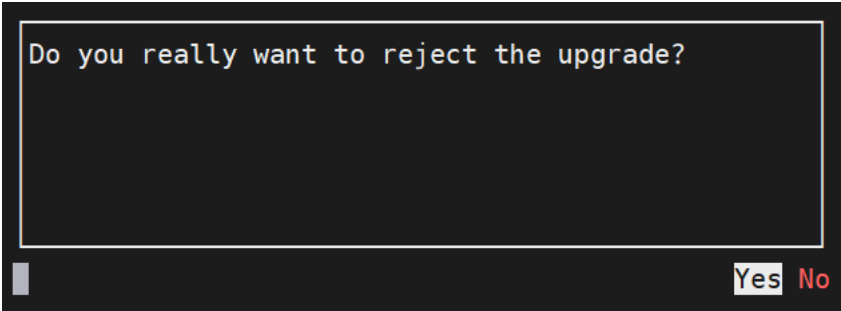
**Procedure 25: Backout Both MPS A and B**

|   |  |   |
|---|--|---|
| <p>15.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Backout completed.</p>  | <p>After the reboot, the screen will display the login prompt, as shown in the example below.</p>   |
| <p>16.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Verify Health of MPS A.</p>   | <p>Run 0 on MPS A to verify the health of MPS A</p> <p>The syscheck utility may report the “500000000000002 - Server Application Process Error” for PDBA, if the pdba software is not running.<br/>May also report following error:<br/>* defaultroute: FAILURE:: MINOR::500000000040000 -- Platform Health Check Failure<br/>* defaultroute: FAILURE:: ping6 return non-zero code.<br/>* defaultroute: FAILURE:: MAJOR::300000000002000 -- Server Default Route Network Error<br/>* defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged!</p> |
| <p>17.<br/><input type="checkbox"/></p> | <p>Terminate all previous connections (ssh).</p>   | <p>If not already connected, connect to the E5-APP-B card via the serial port.</p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B A cards adapter and use it for serial access.</p> <p>Skip to step 21, if connected through serial console.</p>  |
| <p>18.<br/><input type="checkbox"/></p> | <p>Create a terminal window and establish a connection by logging into MPS A.<br/><br/>Log into MPS A.</p> | <p>In a newly created terminal window labeled “<b>MPS B – from MPS A</b>”, connect directly into MPS A.</p> <pre># ssh epapdev@&lt;MPS A&gt; Password: &lt;password&gt;</pre>   |

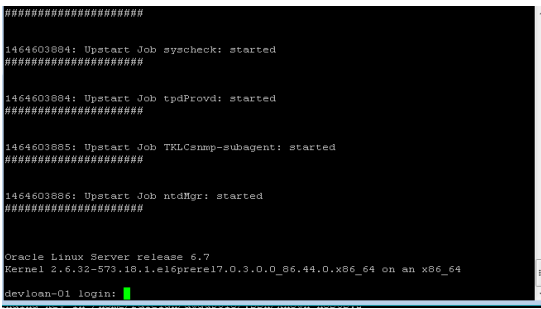
**Procedure 25: Backout Both MPS A and B**

|   |  |  |
|---|--|--|
| <p>19.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Start screen session.</p> <p><b>MPS A:</b> Connect to the console of MPS B.</p> | <p>Run the following commands to start screen and establish a console session to MPS B.</p> <p><b>\$ screen -L</b></p> <p>Run the following command on E5-APP-B:</p> <p><b>\$ sudo minicom mate</b></p> <p>If above command fails then refer to Procedure A.24.</p>  |
| <p>20.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Login prompt is displayed.</p>  | <p>&lt;hostname&gt; console login:</p> <p>Note: Hit enter if no login prompt is displayed.</p>   |
| <p>21.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Log in to the server as user "epapdev".</p>                                     | <p>&lt;hostname&gt; console login: admusr<br/>Password: &lt;password&gt;</p>   |
| <p>22.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Run the platcfg menu</p>  | <p><b>\$ sudo su - platcfg</b></p>   |
| <p>23.<br/><input type="checkbox"/></p> | <p><b>MPS B:</b> Select the Maintenance / Upgrade submenu</p>                                    | <p>The platcfg <b>Main Menu</b> appears.</p> <p>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER]. Then select <b>Upgrade</b> menu and press [ENTER].</p> <div> <p>The image shows a terminal window with a black background and white text. At the top, it says 'Main Menu'. Below that is a list of options: 'Maintenance', 'Diagnostics', 'Server Configuration', 'Remote Consoles', 'Security', 'Network Configuration', and 'Exit'. The 'Maintenance' option is highlighted with a white bar behind it.</p> </div> |

**Procedure 25: Backout Both MPS A and B**

|                                     |  |  |
|-------------------------------------|--|--|
|                                     |  |    |
| <p>24. <input type="checkbox"/></p> | <p><b>MPS B:</b> Reject Upgrade</p>    | <p>Select the “Reject Upgrade” menu and press [ENTER].</p>   <p><b>Note:</b> USB should be removed before initiating the backout on the server otherwise the system will not recover properly and will indicate a drive failure during backout.</p> |
| <p>25. <input type="checkbox"/></p> | <p><b>MPS B:</b> Backout proceeds.</p> | <p>Many informational messages will come across the terminal screen as the backout proceeds.</p>   |

## Procedure 25: Backout Both MPS A and B

|                                 |  |   |
|---------------------------------|--|---|
|                                 |  | <p>Finally, after backout is complete, a message will be displayed stating that a reboot is required.</p> <p>The server will be at runlevel 3 and no applications are running. Proceed to the next step to verify the backout and manually reboot the server.</p>   |
| 26.<br><input type="checkbox"/> | <b>MPS B:</b> Verify the Backout.  | <p>Examine the upgrade logs in the directory <code>/var/TKLC/log/upgrade</code> and verify that no errors were reported.</p> <pre># grep -i error /var/TKLC/log/upgrade/upgrade.log # grep -i error /var/TKLC/log/upgrade/ugwrap.log</pre> <p>Examine the output of the above commands to determine if any errors were reported.</p> <p>Refer to <a href="#">section 3.7</a> to know more about logging.</p>  |
| 27.<br><input type="checkbox"/> | <b>MPS B:</b> Verify the Backout.  | <p>If the backout was <b>not</b> successful and errors were recorded in the logs, then contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section for further instructions.</p> <p>If the backout <b>was</b> successful, then enter continue with the following steps:</p>  |
| 28.<br><input type="checkbox"/> | <b>MPS B:</b> Reboot the MPS.  | <p>Perform the following commands to reboot the MPS:</p> <pre>\$ init 6</pre>   |
| 29.<br><input type="checkbox"/> | <b>MPS B:</b> Login to MPS B.  | <p>After the reboot, the screen will display the login prompt, as shown in the example below.</p>  <p>The screenshot shows a terminal window with the following text:</p> <pre>##### 1464603884: Upstart Job syscheck: started ##### 1464603884: Upstart Job tpdProvid: started ##### 1464603885: Upstart Job TKLCsmp-subagent: started ##### 1464603886: Upstart Job ntdMgr: started ##### Oracle Linux Server release 6.7 Kernel 2.6.32-573.18.1.el6prere17.0.3.0.0_86.44.0.x86_64 on an x86_64 devloam-01 login: █</pre> |
| 30.<br><input type="checkbox"/> | Create a terminal window and establish a connection by logging into MPS A. | <p>In a newly created terminal window labeled “MPS B – from MPS A”, connect directly into MPS A.</p> <pre># ssh epapdev@&lt;MPS A&gt; Password: &lt;password&gt;</pre>  |

## Procedure 25: Backout Both MPS A and B

|                                 |   |  |
|---------------------------------|---|--|
|                                 | Log into MPS A  |  |
| 31.<br><input type="checkbox"/> | <b>MPS A:</b> Rejoin previous screen session on MPS B | <p>Run the following command to disconnect and then rejoin previous screen session:</p> <p><b>\$ screen -dr</b></p>  |
| 32.<br><input type="checkbox"/> | <b>MPS B:</b> Sync the time on both MPS A and MPS B.  | <p>Sync the time on both MPS A and B if it is different.</p> <p>Login to MPS A:<br/> <b>&lt;hostname&gt; console login: epapdev</b><br/> <b>Password: &lt;password&gt;</b></p> <p>Check date time on MPS A using following command:<br/> <b>\$ date</b><br/> Sat Jul 7 01:35:18 EDT 2018</p> <p>Login to MPS B:<br/> <b>&lt;hostname&gt; console login: epapdev</b><br/> <b>Password: &lt;password&gt;</b></p> <p>Check date time on MPS B using following command:<br/> <b>\$ date</b><br/> Sat Jul 7 01:35:18 EDT 2018</p> <p>If both are not same then set the date time value on MPS B same as of MPS A. Use following command:</p> <p>First switch user to root:<br/> <b>\$ su - root</b><br/> <b>Password:</b></p> <p>Run command to set date on MPS B as bellow:</p> <p><b># date -s &lt;data-time of MPS A&gt;</b></p> <pre>[root@Natal-B ~]# date -s "Sat Jul 7 02:05:41 EDT 2018" Sat Jul 7 02:05:41 EDT 2018 [root@Natal-B ~]#</pre> <p>Done.</p> |
| 33.<br><input type="checkbox"/> | <b>MPS B:</b> Log in to the server as user "epapdev". | <b>&lt;hostname&gt; console login: epapdev</b><br><b>Password: &lt;password&gt;</b>  |

## Procedure 25: Backout Both MPS A and B

|                                     |   |  |
|-------------------------------------|---|--|
| <p>34. <input type="checkbox"/></p> | <p><b>MPS B:</b> Clear MySQL replication error banner message, if any</p> | <p>Run the following command to check for MySQL replication error:<br/> <b>\$ manageBannerInfo -l</b></p> <p>Examine the output of the above command to determine if any errors were reported related to MySQL replication such as:</p> <p>MySQL data replication error detected; Attempting to restart<br/> Attempt to restart MySQL replication failed</p> <p>Run the following command to copy the EuiDB database from B server to A server to clear any of the above observed MySQL replication error.</p> <p>Note: This utility should be run only with epapdev user</p> <p><b>\$ /usr/TKLC/epap/config/resetReplication</b><br/> Resetting MySql Replication<br/> This script will fix EuiDB replication by copying the database from one side of the pair to the other side and then resetting the MySql replication pointers.<br/> Are you sure you want to reset replication? (y/n) y<br/> Which side do you want to copy FROM? (A/B) [B]: B<br/> Copy the EuiDB from B to A? (y/n) y<br/> Removing the index and info files from EPAP A<br/> Replication files successfully removed from the mate server.<br/> Connecting to local DB<br/> Connecting to mate DB<br/> Copying EuiDB to mate<br/> Stopping local slave<br/> Stopping mate slave<br/> Resetting local master<br/> Resetting mate master<br/> Resetting local slave<br/> Resetting mate slave<br/> Starting local slave<br/> Starting mate slave<br/> Resetting MySql Replication Completed</p> <p>If there is a failure in resetReplication, Run following commands:</p> <p><b>\$ mysql -uroot -p&lt;MySQL_root_password&gt; -e "GRANT ALL ON EuiDB.* to elapdev@localhost IDENTIFIED by '&lt;password&gt;'"</b></p> <p><b>\$ mysql -uroot -p&lt;MySQL_root_password&gt; -e "GRANT ALL ON EuiDB.* to elapdev@mate IDENTIFIED by '&lt;password&gt;'"</b></p> <p>Run the following command to verify that the banner messages related to the replication error are cleared after some time.<br/> <b>\$ manageBannerInfo -l</b></p> |
| <p>35. <input type="checkbox"/></p> | <p><b>MPS B:</b> Verify Health of MPS B</p>                               | <p>Run 0 on MPS B to verify the health of MPS B.</p>   |

**Procedure 25: Backout Both MPS A and B**

|                                     |   |  |
|-------------------------------------|---|--|
| <p>36. <input type="checkbox"/></p> | <p><b>MPS A:</b> Check if RTDB and PDBA databases are synchronized. - update this</p> <p><b>Note: Skip this step for PDBonly setup.</b></p> | <p>Run the following command to check the RTDB and PDB database levels:<br/> <b>\$ sudo dbstattool</b></p> <p>The outlook may look like:</p> <pre> DBSTATTOOL Platform=EPAP ----- pdb_birthdate           = 1399621904 (Fri May  9 03:51:44 2014) pdb_level               = 1 rtdb_pdb_birthdate     = 1399621904 (Fri May  9 03:51:44 2014) rtdb_begin_dsm_level   = 1 rtdb_end_dsm_level     = 1 rtdb_dsm_birthdate     = 1400784912 (Thu May 22 14:55:12 2014) rtdb_dsm_status        = 1 rtdb_load_state        = 0 EAGLE_fmt_pdb_birthdate = 2152386348 (EAGLE format - be careful!) EAGLE_fmt_rtdb_pdb_birthdate = 1981720860 (EAGLE format - be careful!) EAGLE_fmt_rtdb_dsm_birthdate = 4003650604 (EAGLE format - be careful!) pdba_last_upd_ipaddr   = 0 pdba_last_upd_timestamp = 0 (Wed Dec 31 19:00:00 1969) dbstattool_pad1       = 0 dbstattool_pad2       = 0 dbstattool_pad3       = 0 dbstattool_pad4       = 0 dbstattool_timestamp  = 0 (Wed Dec 31 19:00:00 1969) rtdb_version          = 4                     </pre> <p>Note down the RTDB and PDBA database levels. If they are not the same prior to backout, an RTDB reload from PDBA must be performed after backout!</p> |
| <p>37. <input type="checkbox"/></p> | <p>Reboot EAGLE Cards.</p>  | <p>If the DB levels on EPAP and EAGLE matches and there is no alarm on EAGLE related to “RTDB reload is required”, go to step 37.</p> <p>Reboot 1 SM card on the EAGLE and verify that it comes back to an IS-NR/Active state.</p> <p>If this is a Non-Provisionable EPAP, boot the rest of the EAGLE SM cards over 4 batches (booting 1/4 of the cards at a single time).</p> <p>If this is a Provisionable(mixed EPAP or PDBonly) EPAP, and the second MPS A on which backout has been run, reboot the rest of the cards on both local and remote sides over 4 batches (booting 1/4 of the cards at a single time).</p>  |
| <p>38. <input type="checkbox"/></p> | <p>Procedure is complete.</p>   | <p>This procedure is complete.</p>   |
| <p>39. <input type="checkbox"/></p> | <p>Note down the timestamp in log.</p>  | <p>Run the following command:<br/> <b>\$ date</b></p>  |

**The application should now be running at the original software release level**

## Procedure 26 Stop the PDBA software

### Procedure 26: Stop the PDBA Software

|  |  |   |
|--|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b>   | <p>This procedure stop the PDBA software before major upgrade.<br/>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</b></p> |   |
| <p><b>If backout has been performed, then Run this procedure ONLY after backout on all MPS servers in the entire set of EPAP systems. Otherwise, skip this procedure until all MPS servers have been backed out.</b></p> |  |   |
| 1.   | <input type="checkbox"/> <b>MPS A:</b> Log in to the server as user "epapdev".   | <pre>&lt;hostname&gt; console login: epapdev Password: &lt;password&gt;</pre>   |
| 2.   | <input type="checkbox"/> <b>MPS A:</b> Verify Health of MPS A.   | <p>If not done already, Run 0 on MPS A to verify the health of MPS A.</p> <p>Expect that the syscheck utility will report the 'Server Application Process Error' alarm for the fact that the PDBA software is not running. Besides the PDBA not running alarm, verify that no other abnormalities are noted.</p> <p>May also report following error:</p> <pre>* defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure * defaultroute: FAILURE:: ping6 return non-zero code. * defaultroute: FAILURE:: MAJOR::3000000000002000 -- Server Default Route Network Error * defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged!</pre> |
| 3.   | <input type="checkbox"/> <b>MPS A:</b> Verify that Pdba software running or not.   | <p>Run the command below to find if the pdba is running or not:</p> <pre>\$ ps -aef   grep pdba   grep -v "grep"</pre> <p>If the output contains an entry for the pdba, as shown below, then move to the next step.</p> <pre>[epapdev@MPS A ~]\$ ps -eaf   grep "pdba"   grep -v "grep" epapdev 14165 11068 0 02:59 ?        00:00:07 /opt/TKLCAppl/bin/pdba</pre> <p>Otherwise, skip the next step as Pdba software already stopped.</p>   |

## Procedure 26: Stop the PDBA Software

|                                    |   |   |
|------------------------------------|---|---|
| <p>4. <input type="checkbox"/></p> | <p><b>MPS A:</b> Turn off the <b>PDBA_REMOTE_PDBI_ALLOWED</b> flag to stop provisioning during upgrade.</p> <p><b>Note: This step must be performed in case of upgrade and PDBA software needs to be restarted, for this change to take effect.</b></p> | <p>Run the command below to find the current status of PDBA_REMOTE_PDBI_ALLOWED flag.</p> <pre>[epapdev@Natal-A ~]\$ uiEdit   grep -i PDBA_REMOTE_PDBI_ALLOWED</pre> <p>Skip this step if output of the above command is "PDBA_REMOTE_PDBI_ALLOWED" is set to "OFF".</p> <p>Turn off the PDBA_REMOTE_PDBI_ALLOWED flag by running below command if output of previous command is blank or not set to "OFF"</p> <pre>[epapdev@Natal-A ~]\$ uiEdit PDBA_REMOTE_PDBI_ALLOWED OFF</pre> <p>"PDBA_REMOTE_PDBI_ALLOWED" is set to "OFF"</p> |
| <p>5. <input type="checkbox"/></p> | <p><b>MPS A:</b> Stop the Pdba software.</p>  | <p>Run the following command:</p> <pre>[epapdev@Natal-A ~]\$ service Pdba stop</pre> <pre>~~ /etc/init.d/Pdba stop ~~</pre> <p>PDBA application stopped.</p>  |
| <p>6. <input type="checkbox"/></p> | <p><b>MPS A:</b> Verify that Pdba software running or not</p>   | <p><b>Repeat</b> above step 3.</p>  |
| <p>7. <input type="checkbox"/></p> | <p>Procedure complete.</p>  | <p>This procedure is complete.</p>  |
| <p>8. <input type="checkbox"/></p> | <p>Note down the timestamp in log.</p>  | <p>Run the following command:</p> <pre>\$ date</pre>  |

## Procedure 27 Restart PDBA Software (Post-Backout and Post-Upgrade)

When upgrade is initiated on the first MPS-B, the PDBA software process is stopped on the MPS-A servers configured as **Provisionable**(mixed-EPAP or PDBonly). The PDBA software is intentionally left stopped, and so the operator performing the upgrade must restart the PDBA software after all MPS servers in a set of EPAP systems have been upgraded.

**WARNING:** If a backout of the MPS A and B units is conducted sometime after an upgrade has successfully completed and after Provisioning has been re-enabled, then the only method of PDB restoration is from backup file. In this case, any new data provisioned since the successful completion of the upgrade will be lost and will need to be re-provisioned.

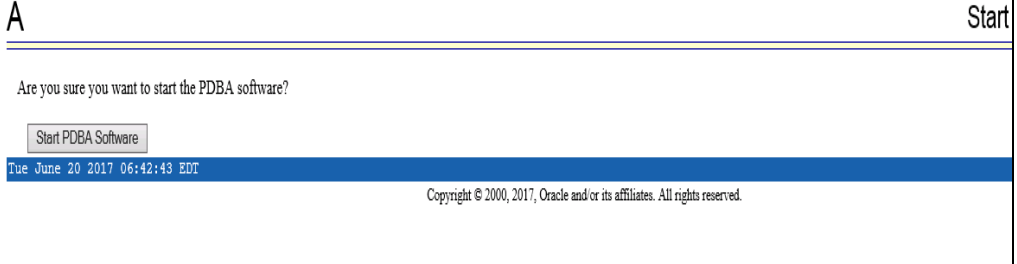
## Procedure 27: Restart the PDBA Software Post-Backout and Post-Upgrade

|  |   |   |
|--|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b>   | <p>This procedure restarts the PDBA software after upgrade of all associated MPS systems has been completed.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</b></p> |   |
| <p><b>If backout has been performed, then run this procedure ONLY after backout on all MPS servers in the entire set of EPAP systems. Otherwise, skip this procedure until all MPS servers have been backed out.</b></p> |   |   |
| <b>1.</b><br><input type="checkbox"/>  | <b>Local MPS A:</b> Log in to the server as user "epapdev".   | <pre>&lt;hostname&gt; console login: epapdev Password: &lt;password&gt;</pre>   |
| <b>2.</b><br><input type="checkbox"/>  | <b>Local MPS A:</b> Verify Health of MPS A.   | <p>If not done already, Run 0 on MPS A to verify the health of MPS A.</p> <p>Expect that the syscheck utility will report the 'Server Application Process Error' alarm for the fact that the PDBA software is not running. Besides the PDBA not running alarm, verify that no other abnormalities are noted.</p> <p>May also report following error:</p> <pre>* defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure * defaultroute: FAILURE:: ping6 return non-zero code. * defaultroute: FAILURE:: MAJOR::3000000000002000 -- Server Default Route Network Error * defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged!</pre> |
| <b>3.</b><br><input type="checkbox"/>  | <b>MPS A:</b> Turn on the <b>PDBA_REMOTE_PDBI_ALLOWED</b> flag to enable PDB to accept updates from remote PDBI.<br><br><p><b>Note: This step must be performed in case of upgrade and PDBA software needs to be restarted, for this change to take effect.</b></p>   | <p>Run the command below to find the current status of PDBA_REMOTE_PDBI_ALLOWED flag.</p> <pre>[epapdev@Natal-A ~]\$ uiEdit   grep -i PDBA_REMOTE_PDBI_ALLOWED</pre> <p>Turn on the PDBA_REMOTE_PDBI_ALLOWED flag. Skip this step if output of the above command is "PDBA_REMOTE_PDBI_ALLOWED" is set to "ON" or no output is displayed</p> <pre>[epapdev@Natal-A ~]\$ uiEdit PDBA_REMOTE_PDBI_ALLOWED ON "PDBA_REMOTE_PDBI_ALLOWED" is set to "ON"</pre>   |

## Procedure 27: Restart the PDBA Software Post-Backout and Post-Upgrade

|    |   |   |
|----|---|---|
| 4. | <b>Move back the pdba binary from pdba_stopped to pdba</b>  | <pre>[root@Quito-a bin]# mv pdba_stopped pdba [root@Quito-a bin]#</pre>   |
| 5. | <input type="checkbox"/> <p><b>Local MPS A:</b> Restart the PDBA software.</p> <p>On the menu, click PDBA-&gt;Process Control-&gt;Start PDBA software</p> | <p>Run the command below to find if the pdba is running or not:</p> <pre>\$ ps -aef   grep pdba   grep -v "grep"</pre> <p>If the output contains an entry for the pdba, as shown below, then skip to the next step.</p> <pre>[epapdev@MPS A ~]\$ ps -aef   grep pdba  grep -v "grep" epapdev 23890 10248 0 Apr07 ? 00:01:18 /opt/TKLCAppl/bin/pdba</pre> <p>Otherwise, Login to EPAP GUI by uiadmin user and start PDBA software.</p>   |
| 6. | <input type="checkbox"/> <p><b>Local MPS A:</b> Verify PDBA is running.</p>   | <p>Run 0 on MPS A to verify the health of MPS A Verify that syscheck does <b>not</b> show that the PDBA is <b>not</b> running.</p> <p>May also report following error:</p> <pre>* defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure * defaultroute: FAILURE:: ping6 return non-zero code.</pre>  |
| 7. | <input type="checkbox"/> <p><b>Remote MPS A:</b> Log in to the server as user "epapdev".</p>  | <pre>&lt;hostname&gt; console login: epapdev Password: &lt;password&gt;</pre>   |
| 8. | <input type="checkbox"/> <p><b>Remote MPS A:</b> Verify Health of MPS A.</p>  | <p>Run 0 on MPS A to verify the health of MPS A.</p> <p>Expect that the syscheck utility will alarm the fact that the PDBA software is not running. This will appear as a "5000000000000002 -- Server Application Process Error" alarm. Besides the PDBA not running alarm, verify that no other abnormalities are noted.</p> <p>May also report following error:</p> <pre>* defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure * defaultroute: FAILURE:: ping6 return non-zero code.</pre> |

**Procedure 27: Restart the PDBA Software Post-Backout and Post-Upgrade**

|     |  |  |
|-----|--|--|
|     |  | <p>* defaultroute: FAILURE:: MAJOR::300000000002000 -- Server Default Route Network Error</p> <p>* defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged!</p>  |
| 9.  | <p><input type="checkbox"/> <b>Remote MPS A:</b> Restart the PDBA software.</p> <p>On the menu, click PDBA-&gt;Process Control-&gt;Start PDBA software</p> | <p>Run the command below to find if the pdba is running or not:</p> <p><b>\$ ps -aef   grep pdba   grep -v "grep"</b></p> <p>If the output contains an entry for the pdba, as shown below, then skip to the next step.</p> <p>epapdev 23890 10248 0 Apr07 ? 00:01:18 /opt/TKLCappl/bin/pdba</p> <p>Otherwise, Login to EPAP GUI by uiadmin user and start PDBA software.</p>    |
| 10. | <p><input type="checkbox"/> <b>Remote MPS A:</b> Verify PDBA is running.</p>   | <p>Run 0 on MPS A to verify the health of MPS A. Verify that syscheck does <i>not</i> show that the PDBA is <i>not</i> running.</p> <p>May also report following error:</p> <p>* defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure</p> <p>* defaultroute: FAILURE:: ping6 return non-zero code</p> <p>* defaultroute: FAILURE:: MAJOR::300000000002000 -- Server Default Route Network Error</p> <p>* defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged</p> |
| 11. | <p><input type="checkbox"/> Procedure complete.</p>  | <p>This procedure is complete.</p>   |
| 12. | <p><input type="checkbox"/> Note down the timestamp in log.</p>  | <p>Run the following command:</p> <p><b>\$ date</b></p>  |

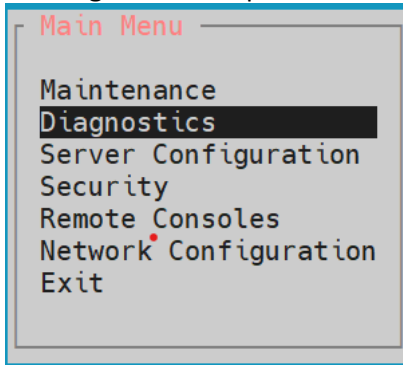
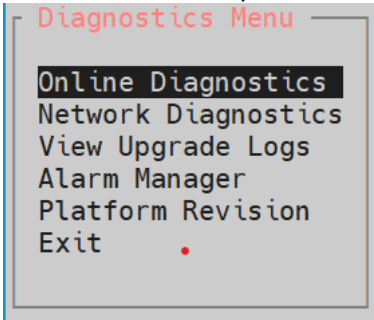
**THIS COMPLETES THE BACKOUT**



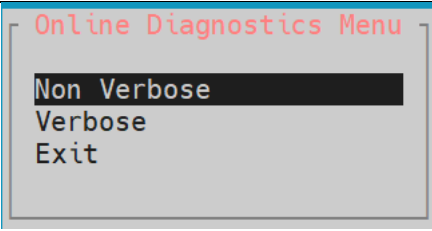
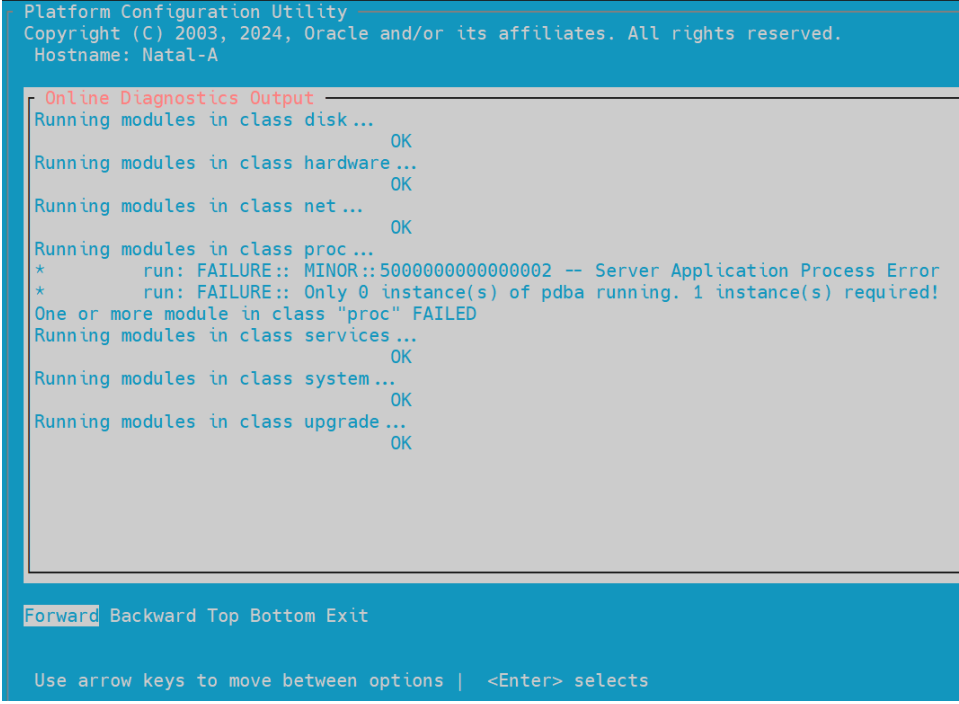
## APPENDIX A      GENERIC PROCEDURES

### Perform System Health Check

#### Appendix A.1      Perform System Health Check

|                                  |   |  |
|----------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure performs a system health check on any MPS server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <b>UPGRADE ASSISTANCE</b>.</p> |  |
| 1.<br><input type="checkbox"/>   | Log in as the admusr user.  | <pre>&lt;hostname&gt; console login: admusr Password: &lt;password&gt;</pre>   |
| 2.<br><input type="checkbox"/>   | Run the platcfg menu.   | <pre>\$ sudo su - platcfg</pre>  |
| 3.<br><input type="checkbox"/>   | Select the Diagnostics submenu.   | <p>The platcfg <b>Main Menu</b> appears.<br/>On the <b>Main Menu</b>, select <b>Diagnostics</b> and press [ENTER].</p>  <pre> Main Menu ----- Maintenance Diagnostics Server Configuration Security Remote Consoles Network Configuration Exit     </pre> |
| 4.<br><input type="checkbox"/>   | Select the Online Diagnostics submenu.  | <p>Select the <b>Online Diagnostics</b> submenu and press [ENTER].</p>  <pre> Diagnostics Menu ----- Online Diagnostics Network Diagnostics View Upgrade Logs Alarm Manager Platform Revision Exit     </pre>  |
| 5.<br><input type="checkbox"/>   | Select the Non-Verbose option.  | Select the <b>Non-Verbose</b> option and press [ENTER].  |

## Appendix A.1 Perform System Health Check

|                                    |  |  |
|------------------------------------|--|--|
|                                    |  |    |
| <p>6. <input type="checkbox"/></p> | <p>Examine the output of the Online Diagnostics.</p>         | <p>Example output shown below. Examine the actual output of the Online Diagnostics.</p>   |
| <p>7. <input type="checkbox"/></p> | <p>System Check Successful.</p> <p>System Check Failure.</p> | <p>Exit from the above menu.</p> <p>If the System Check was successful, return to the procedure that you came here from.</p> <p>If the “Server Disk Space Shortage Error” was there in the output, proceed to step 8 to clean up the ‘/’ directory.</p> <p><b>syscheck may report following error which can be ignored:</b></p> <ul style="list-style-type: none"> <li>* defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure</li> <li>* defaultroute: FAILURE:: ping6 return non-zero code</li> </ul> |

## Appendix A.1 Perform System Health Check

|   |   |   |
|---|---|---|
|   |   | <p>* defaultroute: FAILURE:: MAJOR::300000000002000 -- Server Default Route Network Error</p> <p>* defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged</p> <p>If any other failures were detected by System Check, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section .</p>   |
| <p>8.</p> <p><input type="checkbox"/></p> | <p>Server clean-up to create space.</p> | <p>Run the following command:</p> <pre>\$ df -h /var/TKLC</pre> <p>The output may look like:</p> <pre>[root@Quito-a core]# df -h /var/TKLC Filesystem                Size  Used Avail Use% Mounted on /dev/mapper/vgroot-plat_var_tklc 7.8G  2.3G  5.1G 31% /var/TKLC</pre> <p>Verify that there is at least 600M in the Avail column. If not, clean up files until there is space available.</p> <p><b>CAUTION: Make sure you know what files you can remove safely before cleaning up. It is recommended that you only clean up files in the /var/TKLC/upgrade directory as this is a platform owned directory that should only contain ISO images. This directory should not be expected to contain images for any length of time as they can get purged.</b></p> <p>Also, Run the following command to check space in '/lib/module' directory.</p> <pre>\$ df -h /lib/modules</pre> <pre>[root@Quito-a core]# df -h /lib/modules Filesystem                Size  Used Avail Use% Mounted on /dev/mapper/vgroot-plat_usr 7.8G  4.7G  2.8G  64% /usr [root@Quito-a core]#</pre> <p>Verify that the Use% column does not exceed the value 80%.</p> |
| <p>9.</p> <p><input type="checkbox"/></p> | <p>Disk Space Check</p>                 | <p><b>Switch to root user</b></p> <pre>\$ su - &lt;root password&gt;</pre>  |

## Appendix A.1 Perform System Health Check

|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
|                                 |                                 | <p>Run the command on both Active and Standby PDB:<br/>[root@Arice-A epapa11]# fdisk -l</p> <p>Disk /dev/sda: 480.1 GB, 480103981056 bytes<br/>255 heads, 63 sectors/track, 58369 cylinders<br/>Units = cylinders of 16065 * 512 = 8225280 bytes</p> <p>Compare the disk size on both the Standby and Active PDBA. It should be the same on both sites, either 480G or 300G. In case both sites have different disk sizes, such as 480G on one and 300G on the other, contact My Oracle Support by following the instructions on the front page or in the My Oracle Support section.</p> |
| 10.<br><input type="checkbox"/> | Procedure complete.             | Return to the procedure that you came here from.   |
| 11.<br><input type="checkbox"/> | Note down the timestamp in log. | <p>Run the following command:</p> <p><b>\$ date</b></p>  |

## Procedure A.2 Validate Upgrade Media

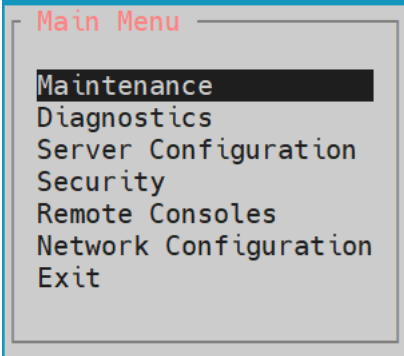
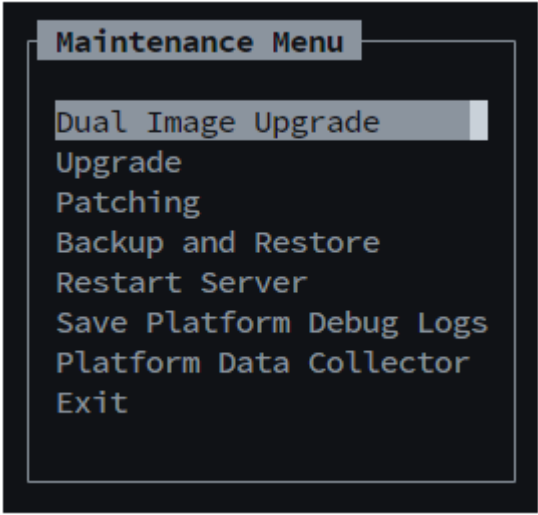
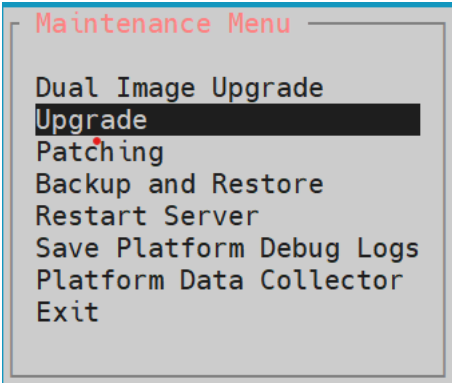
This procedure is used to Run a validation of the Upgrade Media (typically an ISO image) separately from running an upgrade. The upgrade process automatically validates the upgrade media. However, sometimes the user may need to perform just a validation before proceeding with upgrade, which is why this separate process is provided.

Validation could be performed on MPS A or B, however, this procedure specifies MPS X for simplicity.

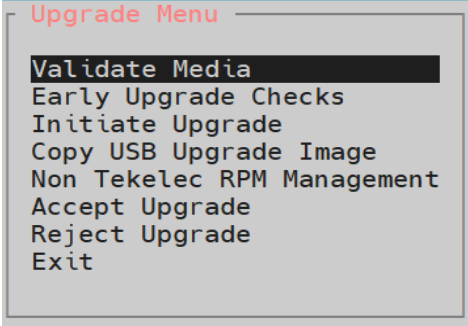
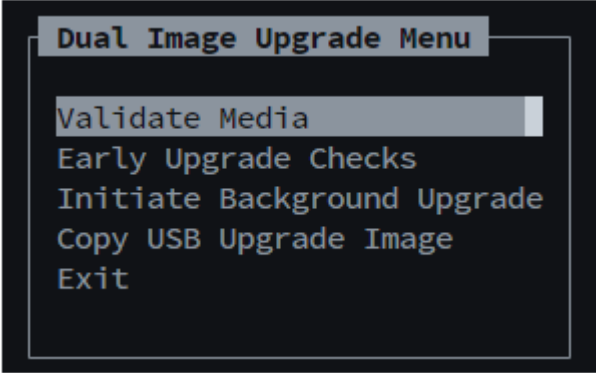
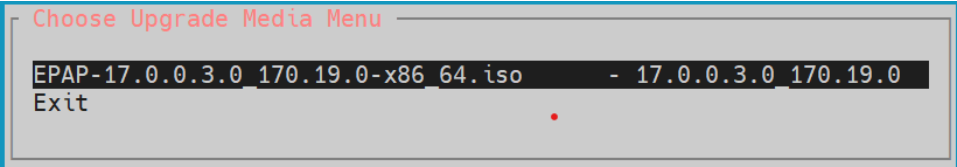
### Appendix A.2 Validate the Upgrade Media

|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure provides instructions to perform a validation of the upgrade media on the MPS X server. This procedure assumes that the E5-APP-B card IPM procedure has been followed and the user has an EPAP Upgrade ISO image available.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</b></p> |  |
|                                  | 1.<br><input type="checkbox"/>   | <p><b>MPS X:</b> If necessary, log in to the server as the user "admusr".</p> <p>If not already logged in to the MPS server, then login as user "admusr".</p> <p><b>&lt;hostname&gt; console login: admusr</b><br/><b>password: &lt;password&gt;</b></p> |
| 2.<br><input type="checkbox"/>   | <p><b>MPS X:</b> Run the platcfg menu.</p>   | <p><b>\$ sudo su - platcfg</b></p>   |

## Appendix A.2 Validate the Upgrade Media

|                                    |   |  |
|------------------------------------|---|--|
| <p>3. <input type="checkbox"/></p> | <p><b>MPS X:</b> Select the Maintenance submenu.</p>  | <p>The platcfg <b>Main Menu</b> appears.<br/>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p>  <p>In case of Dual Image Upgrade, Select the Dual Image upgrade menu and press [ENTER]</p>  |
| <p>4. <input type="checkbox"/></p> | <p><b>MPS X:</b> Select the Upgrade/Dual Image Upgrade submenu based on the type of Installation.</p> | <p>In case of fresh install, select the <b>Upgrade</b> menu and press [ENTER].</p>   |

## Appendix A.2 Validate the Upgrade Media

|                                    |  |   |
|------------------------------------|--|---|
| <p>5. <input type="checkbox"/></p> | <p><b>MPS X:</b> Select the Validate Media selection.</p>      | <p>Select the <b>Validate Media</b> menu and press [ENTER].</p> <p>In case of Fresh install, you will see the below menu:</p>  <p>In case of Dual Image Upgrade you will see the below menu:</p>   |
| <p>6. <input type="checkbox"/></p> | <p><b>MPS X:</b> Output from the Validate Media selection.</p> | <p>The screen will display a message that it is searching for upgrade media. Once the upgrade media is found, an Upgrade Media selection menu will be displayed similar to the example shown below.</p> <p>If the upgrade media is not found, follow <b>0</b> to copy the upgrade ISO.</p> <p>Select the upgrade media or ISO image. There should only be one selection available, as shown in the example below. If there is more than one selection available, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section.</p>  |

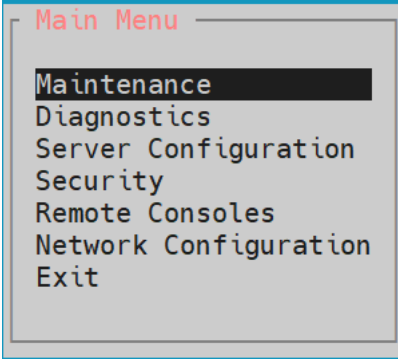
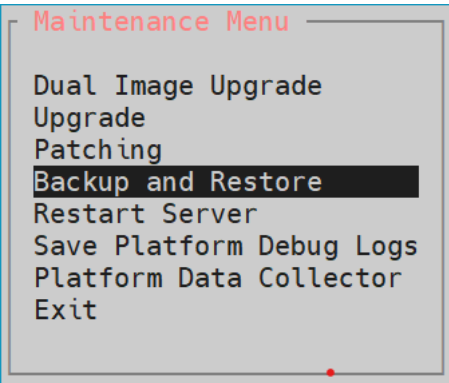


## Appendix A.2 Validate the Upgrade Media

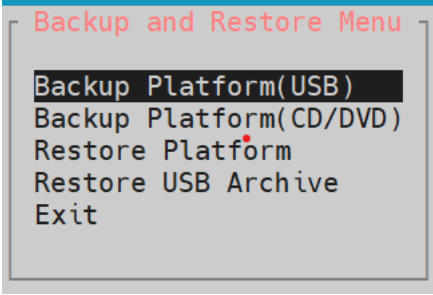
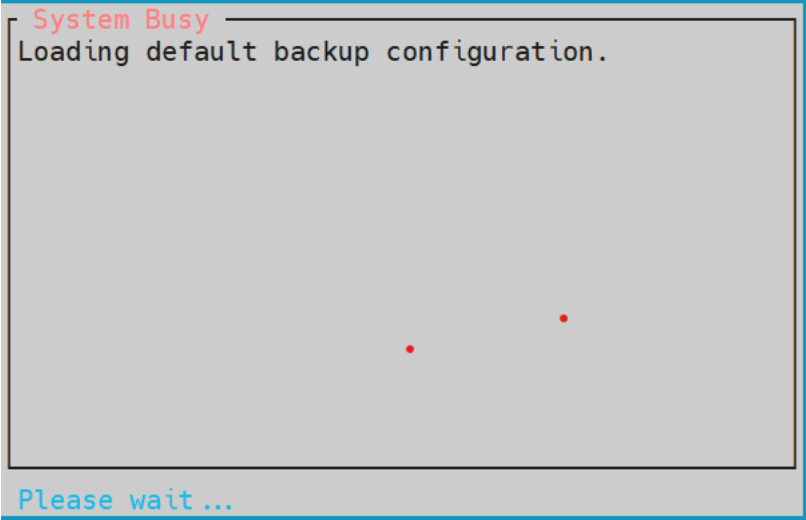
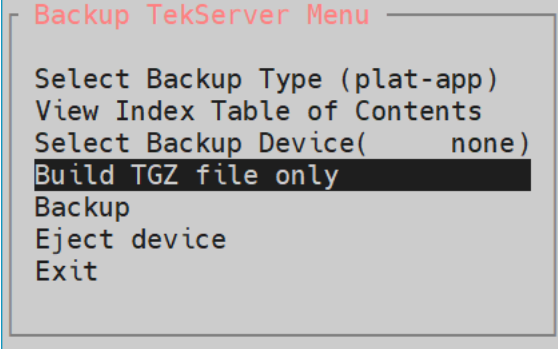
|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
|                                 |                                 |  |
| 10.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><b>\$ date</b> |

## Porcedure A.3 System Configuration Backup

### Appendix A.3 System Configuration Backup

|                                       |   |  |
|---------------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b>      | <p>This procedure performs configuration backup on an MPS Server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <b>UPGRADE ASSISTANCE</b>.</p> |  |
| <b>1.</b><br><input type="checkbox"/> | <b>MPS X:</b> If necessary, log in to the server as the user "epapdev".   | <p>If not already logged in to the MPS server, then login as user "admusr".</p> <pre>&lt;hostname&gt; console login: admusr password: &lt;password&gt;</pre>   |
| <b>2.</b><br><input type="checkbox"/> | <b>MPS X:</b> Run the platcfg menu.   | <pre>\$ sudo su - platcfg</pre>  |
| <b>3.</b><br><input type="checkbox"/> | <b>MPS X:</b> Select the Maintenance submenu.   | <p>The platcfg <b>Main Menu</b> appears.</p> <p>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Main Menu" with the following options: Maintenance (highlighted), Diagnostics, Server Configuration, Security, Remote Consoles, Network Configuration, and Exit.</p> |
| <b>4.</b><br><input type="checkbox"/> | <b>MPS X:</b> Select the Backup Platform submenu.   | <p>Select the <b>Backup and Restore</b> menu and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Maintenance Menu" with the following options: Dual Image Upgrade, Upgrade, Patching, Backup and Restore (highlighted), Restart Server, Save Platform Debug Logs, Platform Data Collector, and Exit.</p>                    |
| <b>5.</b><br><input type="checkbox"/> | <b>MPS X:</b> Select the Backup Platform submenu.   | <p>Select the <b>Backup Platform (USB)</b> submenu and press [ENTER].</p>  |

## Appendix A.3 System Configuration Backup

|                                    |  |  |
|------------------------------------|--|--|
|                                    |  |    |
| <p>6. <input type="checkbox"/></p> | <p><b>MPS X:</b> Backup continues.</p>                         | <p>The backup continues. The following busy screen may appear.</p>    |
| <p>7. <input type="checkbox"/></p> | <p><b>MPS X:</b> Select the Build TGZ file only selection.</p> | <p>Select the <b>Build TGZ file only</b> selection and press [ENTER].</p>    |
| <p>8. <input type="checkbox"/></p> | <p><b>MPS X:</b> Backup complete – select exit.</p>            | <p>Once the TGZ has been created, the “<b>Backup TekServer Menu</b>” will be displayed again. Select the Exit option, and keep selecting the Exit option, until you reach the command line prompt.</p> |

## Appendix A.3 System Configuration Backup

|   |   |   |
|---|---|---|
| <p>9.<br/><input type="checkbox"/></p>  | <p><b>MPS X:</b> Transfer the backup file.</p>        | <p>The backup file is in the /var/TKLC/bkp directory and will have a name like &lt;hostname&gt;-plat-app-[date][time].tgz</p> <p>Run the following command to view the backup file:<br/> <b>\$ ls -l /var/TKLC/bkp</b></p> <pre>[admusr@Recife-a bkp]\$ ls -l /var/TKLC/bkp/ total 5836 -rw-rw---- 1 root sys 5972128 Sep 11 09:04 Recife-a-plat-app-201809110904.tgz</pre>   |
| <p>10.<br/><input type="checkbox"/></p> | <p><b>MPS X:</b> Transfer file to remote machine.</p> | <p>Using SFTP (secure-FTP), transfer the ISO to a remote, customer-provided computer. Enter “yes” when prompted if you want to continue to connect.</p> <p><b>\$ cd /var/TKLC/bkp</b></p> <p><b>\$ sftp &lt;IP address of remote computer&gt;</b><br/> Connecting to &lt;IP address of remote computer&gt;...<br/> The authenticity of host '&lt;IP address of remote computer&gt;' can't be established.<br/> DSA key fingerprint is<br/> 58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24.<br/> Are you sure you want to continue connecting (yes/no)? <b>yes</b><br/> Warning: Permanently added &lt;IP address of remote computer&gt;' (DSA) to the list of known hosts.<br/> root@&lt;IP address of remote computer&gt;'s password:<br/> sftp&gt; cd &lt;target directory&gt;<br/> sftp&gt; put &lt;hostname&gt;-plat-app-[date][time].tgz<br/> Uploading &lt;hostname&gt;-plat-app-[date][time].tgz to &lt;hostname&gt;-plat-app-[date][time].tgz<br/> sftp&gt; bye</p> <p>If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command:</p> <p><b>\$ sudo chmod 666 /var/TKLC/bkp/&lt;TGZ file&gt;</b><br/> <b>\$ su - epapdev</b><br/> <b>\$ scp /var/TKLC/bkp/&lt;TGZ file&gt; epapdev@remoteIP:&lt;Remote IP Path&gt;</b></p> |
| <p>11.<br/><input type="checkbox"/></p> | <p>Procedure complete.</p>                            | <p>Return to the procedure that you came here from.</p>   |
| <p>12.<br/><input type="checkbox"/></p> | <p>Note down the timestamp in log.</p>                | <p>Run the following command:<br/> <b>\$ date</b></p>   |

## Procedure A.4 Run parse9Dig script

### Appendix A.4 Run parse9Dig script

|   |   |
|---|---|
| <p><b>S</b><br/><b>T</b><br/><b>E</b></p> | <p>This procedure runs the parse9Dig script.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> |
|---|---|

| P<br>#                         | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u> . |   |
|--------------------------------|--|---|
| 1.<br><input type="checkbox"/> | <b>MPS A:</b> Login as the user "epapdev" on standalone PDB.                               | If not already logged-in, then login at MPS A:<br><b>&lt;hostname&gt; console login: epapdev</b><br><b>password: &lt;password&gt;</b>   |
| 2.                             | <b>MPS A:</b> Check if "parse9Dig" script is present on setup.                             | Check whether "parse9Dig" script is present on setup or not.<br><br>Run following command:<br><b>\$ ls -lrt /usr/TKLC/epap/config/parse9Dig</b><br><br>[epapdev@Natal-a-PDBonly ~]\$ ls -lrt /usr/TKLC/epap/config/parse9Dig<br>-rwxr-xr-x 1 epapdev epap 12162 Oct 10 16:23 /usr/TKLC/epap/config/parse9Dig<br><br>If output is same as above then proceed to step 4 otherwise proceed with following step.  |
| 3.<br><input type="checkbox"/> | <b>MPS A:</b> Run the "parse9Dig" script on standalone PDB.                                | Note: Stop the Pdba software before running this script.<br><br>Run the "parse9Dig" script and examine the result.<br><br><b>\$/usr/TKLC/epap/config/parse9Dig all u</b><br>[epapdev@Osorna-1B-PDBonly config]\$ /usr/TKLC/epap/config/parse9Dig all u<br><br>This utility will retrieve all digits for DB and parse them into 9Dig entries.<br><br>*****<br>Utility Start Time: 06/13/18-21:24:31<br><br>Parsing DN digits into 9digits...<br>INFO: DN 9dig count 2.<br><br>REPLACE INTO dn9dig VALUES (UNHEX("05000000000"),1), (UNHEX("06000000000"),1);<br><br>Parsing IMSI digits into 9digits...<br>INFO: IMSI 9dig count: 9.<br><br>REPLACE INTO imsi9dig VALUES (UNHEX("0D001234567"),3), (UNHEX("06000000000"),1), (UNHEX("07000000009"),1), (UNHEX("08000000044"),1), (UNHEX("08000000023"),2), (UNHEX("05000000000"),1), (UNHEX("0800000077"),1), (UNHEX("08000000099"),1), (UNHEX("08000000088"),1);<br><br>Parsing IMEI digits into 9digits...<br>INFO: IMEI 9dig count: 1.<br><br>REPLACE INTO imei9dig VALUES (UNHEX("0E012345678"),2);<br><br>Utility End Time: 06/13/18-21:24:31 _ |
| 4.<br><input type="checkbox"/> | <b>MPS A:</b> Procedure is complete.   | This procedure is complete.   |
| 5.<br><input type="checkbox"/> | Note down the timestamp in log.  | Run the following command:  |

|  |  |         |
|--|--|---------|
|  |  | \$ date |
|--|--|---------|

## Procedure A.5 Increase rtVolume size for Non-prov

### Appendix A.5 Increase rtVolume size for Non-prov

|  |  |  |
|--|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b>                                     | <p>This procedure increase rtVolume size for Non-prov.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND <b>ASK FOR UPGRADE ASSISTANCE.</b></p> |  |
| <p>Note: Skip this procedure for mixed EPAP and standalone EPAP.</p> |  |  |
| 1.<br><input type="checkbox"/>                                       | <p><b>MPS A:</b> Log in to the server.</p>   | <p>If not already logged-in, then login at MPS A:<br/> <b>&lt;hostname&gt; console login: epapdev</b><br/> <b>Password: &lt;password&gt;</b></p>   |
| 2.<br><input type="checkbox"/>                                       | <p><b>MPS A:</b> Run "rtmdir_300gb" script for E5-APP-B cards with 300GB drive modules.</p>  | <p>If EPAP is running on an E5-APP-B card with 300GB drive modules, Run this step. If instead, EPAP is running on an E5-APP-B card with 480GB drive modules, skip this step and go to step 3.</p> <p>Download the rtdir_300gb script zip file from My Oracle Support(MOS) (<a href="https://support.oracle.com">https://support.oracle.com</a>). The zip file is available on MOS under Oracle Communications EAGLE Application Processor 16.3.0.0.0.</p> <p>Place the zip file in the /tmp directory. Unzip the file:<br/> <b>\$ unzip &lt;zip file name from MOS&gt;</b><br/> <b>\$ cat Readme.txt</b></p> <p>Follow the directions in the Readme.txt file.</p> <p>Run the following script:<br/> <b>\$ sudo /usr/TKLC/epap/bin/rtdir_300gb</b></p> <p>Warning: This utility would increase rtVolume for non-prov setup and this action is irreversible.<br/> Are you sure you want to continue?[Yes/No]: Yes</p> <pre> INFO: Increasing rt volume size for Non-provisionable EPAP. Please wait... INFO: db space increased on 'A'. INFO: Stopping Epap, mysqlapp and mysqlpdb services... Done. INFO: Starting Epap, mysqlapp and mysqlpdb services... Done. INFO: Successfully configured Non-provisionable EPAP. </pre> |

## Appendix A.5 Increase rtVolume size for Non-prov

|  |  |  |
|--|--|--|
|  |  | <p>The following MyISAM table error is observed in the CLI while running the rtdir script:</p> <pre> myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/pdb/mysql/columns_priv.MYI' myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/pdb/mysql/columns_priv.MYI' myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/pdb/mysql/db.MYI' e2fsck 1.43-WIP (20-Jun-2013) File descriptor 7 (socket:[102707]) leaked on lvreduce invocation. Parent PID 25006: sh resize2fs 1.43-WIP (20-Jun-2013) File descriptor 7 (socket:[102707]) leaked on vgdisplay invocation. Parent PID 25350: sh File descriptor 7 (socket:[102707]) leaked on lvextend invocation. Parent PID 25359: sh resize2fs 1.43-WIP (20-Jun-2013) File descriptor 7 (socket:[102707]) leaked on vgdisplay invocation. Parent PID 25410: sh File descriptor 7 (socket:[102707]) leaked on lvextend invocation. Parent PID 25416: sh myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/appconfig/EuiDB/alarmInfo.MYI' myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/appconfig/EuiDB/alarmInfo.MYI' myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/appconfig/EuiDB/bannerinfo.MYI' . . FIPS integrity verification test failed. FIPS integrity verification test failed. . .WARNING: Reducing active logical volume to 8.00 GiB. THIS MAY DESTROY YOUR DATA (filesystem etc.). </pre> <p>Skip step 3 and continue with step 4.</p> |
| <p>3.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Run “rtdir” script for E5-APP-B cards with 480GB drive modules.</p> | <p>If EPAP is running on an E5-APP-B card with 300GB drive modules, do not Run this step. Instead, Run step 2. If EPAP is running on an E5-APP-B card with 480GB drive modules, Run this step.</p> <p>Run the following script:</p> <pre>\$ sudo /usr/TKLC/epap/bin/rtdir</pre> <p>Warning: This utility would increase rtVolume for non-prov setup and this action is irreversible.</p> <p>Are you sure you want to continue?[Yes/No]: Yes</p> <pre> INFO: Increasing rt volume size for Non-provisionable EPAP. Please wait... INFO: db space increased on 'A'. INFO: Stopping Epap, mysqlapp and mysqlpdb services... Done. INFO: Starting Epap, mysqlapp and mysqlpdb services... Done. INFO: Successfully configured Non-provisionable EPAP. </pre>   |

## Appendix A.5 Increase rtVolume size for Non-prov

|                                    |  |   |
|------------------------------------|--|---|
|                                    |  | <p>The following MyISAM table error is observed in the CLI while running the rtdir script:</p> <pre> myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/pdb/mysql/columns_priv.MYI' myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/pdb/mysql/columns_priv.MYI' myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/pdb/mysql/db.MYI' e2fsck 1.43-WIP (20-Jun-2013) File descriptor 7 (socket:[102707]) leaked on lvreduce invocation. Parent PID 25006: sh resize2fs 1.43-WIP (20-Jun-2013) File descriptor 7 (socket:[102707]) leaked on vgdisplay invocation. Parent PID 25350: sh File descriptor 7 (socket:[102707]) leaked on lvextend invocation. Parent PID 25359: sh resize2fs 1.43-WIP (20-Jun-2013) File descriptor 7 (socket:[102707]) leaked on vgdisplay invocation. Parent PID 25410: sh File descriptor 7 (socket:[102707]) leaked on lvextend invocation. Parent PID 25416: sh myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/appconfig/EuiDB/alarmInfo.MYI' myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/appconfig/EuiDB/alarmInfo.MYI' myisamchk: error: 140 when opening MyISAM-table '/var/TKLC/epap/db/appconfig/EuiDB/bannerinfo.MYI' . . FIPS integrity verification test failed. FIPS integrity verification test failed. . .WARNING: Reducing active logical volume to 8.00 GiB. THIS MAY DESTROY YOUR DATA (filesystem etc.). </pre> |
| <p>4. <input type="checkbox"/></p> | <p><b>MPS A:</b> Verify rtVolume size using command “df -h”.</p> | <pre> [epapdev@Arica-1A ~]\$ df -h Filesystem      Size  Used Avail Use% Mounted on /dev/mapper/vgroot-plat_root                 976M  288M  637M  32% / tmpfs           3.9G   0  3.9G   0% /dev/shm /dev/md1        244M   40M  192M  18% /boot /dev/mapper/vgroot-plat_tmp                 976M  2.0M  923M   1% /tmp /dev/mapper/vgroot-plat_usr                 3.9G  2.5G  1.2G  68% /usr /dev/mapper/vgroot-plat_var                 976M  206M  720M  23% /var /dev/mapper/vgroot-plat_var_tklc                 3.9G  1.8G  1.9G  49% /var/TKLC /dev/mapper/vgroot-db                 5.8G  4.3G  1.2G  79% /var/TKLC/epap/db /dev/mapper/vgroot-free                 320G  5.3G  298G   2% /var/TKLC/epap/free /dev/mapper/vgroot-logs                 20G   89M   19G   1% /var/TKLC/epap/logs /dev/mapper/vgroot-rt                 82G  3.3G   75G   5% /var/TKLC/epap/rt [epapdev@Arica-1A ~]\$ </pre> <p><b>Vgroot-rt size should be greater than 80G.</b></p>  |

## Appendix A.5 Increase rtVolume size for Non-prov

|                                |   |   |
|--------------------------------|---|---|
| 5.<br><input type="checkbox"/> | MPS B: Run "rtdir" or "rtdir_300gb" script. | After successfully converted rtVolume size on MPS A, repeat steps 2, 3, and 4 on MPS B. |
| 6.<br><input type="checkbox"/> | MPS B: Procedure completed.                 | This procedure is completed.  |
| 7.<br><input type="checkbox"/> | Note down the timestamp in log.             | Run the following command:<br><br>\$ date   |

## Procedure A.6 PDB Backup

### Appendix A.6 PDB Backup

|                                |   |   |
|--------------------------------|---|---|
| S<br>T<br>E<br>P<br>#          | <p>This procedure performs a PDB backup on the EPAP server configured as a Provisionable (mixed-EPAP or PDBonly) node. This procedure should only be performed on the active PDBA.</p> <p><b>Note: Only one PDB Backup is allowed, to be stored. In case another backup is required, workaround is to setup the remote transfer of the existing pdb backup and then delete it.</b></p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</b></p> |   |
| 1.<br><input type="checkbox"/> | <b>MPS A:</b> Log in to the server.   | If not already logged-in, then login at MPS A:<br><b>&lt;hostname&gt; console login: epapdev</b><br><b>Password: &lt;password&gt;</b>   |
| 2.<br><input type="checkbox"/> | Run syscheck.   | <p>Switch to root user<br/><b>\$ su -</b><br/><b>Password:&lt;root password&gt;</b></p> <p>Run the following Command:<br/><b>\$ syscheck</b></p> <p>Note: syscheck may report following error which can be ignored:<br/>           * defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure<br/>           * defaultroute: FAILURE:: ping6 return non-zero code<br/>           * defaultroute: FAILURE:: MAJOR::3000000000002000 -- Server Default Route Network Error<br/>           * defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged</p> |

## Appendix A.6 PDB Backup

|  |   |  |
|--|---|--|
| <p>3.<br/><input type="checkbox"/></p> | <p>Verify the System Check ran successfully.</p> <p>In particular, verify that the PDBA process is running by noting that syscheck does not generate an alarm against the PDBA process.</p> | <pre>Running modules in class disk... OK Running modules in class net... OK Running modules in class proc... OK Running modules in class system... OK Running modules in class hardware... OK</pre> <p>The log is available at:<br/>--&gt;/var/TKLC/log/syscheck/fail_log</p> <p>If the syscheck utility reports the "5000000000000002 – Server Application Process Error" alarm, restart the PDBA and Run syscheck again. The above alarm should be removed. If the above alarm is not removed, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section</p>  |
| <p>4.<br/><input type="checkbox"/></p> | <p>System Check Verifies that PDBA is running.</p>  | <p>If the syscheck does not report any errors, proceed to the next step. Otherwise, if any other failures were detected by System Check, contact My Oracle Support following the instructions on the front page or the instructions in the <b>My Oracle Support</b> section.</p> <p>Note: syscheck may report following error which can be ignored:</p> <ul style="list-style-type: none"> <li>* defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure</li> <li>* defaultroute: FAILURE:: ping6 return non-zero code</li> <li>* defaultroute: FAILURE:: MAJOR::3000000000002000 -- Server Default Route Network Error</li> <li>* defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged</li> </ul> |
| <p>5.<br/><input type="checkbox"/></p> | <p>Log into epapconfig.</p>   | <pre>\$ su - epapconfig</pre> <p>Warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904.</p>  |
| <p>6.<br/><input type="checkbox"/></p> | <p>Main menu is displayed. Select Platform Menu.</p>  | <p>Menu for mixed-EPAP:</p> <pre> /-----EPAP Configuration Menu-----\  -----    1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell keys    -----    5   Change Password    -----    6   Platform Menu    -----  </pre>  |

## Appendix A.6 PDB Backup

|                                    |   |  |
|------------------------------------|---|--|
|                                    |   | <pre> 7   Configure NTP Server ----- 8   PDB Configuration Menu ----- 9   Security ----- 10   SNMP Configuration ----- 11   Configure Alarm Feed ----- 12   Configure Query Server ----- 13   Configure Query Server Alarm Feed ----- 14   Configure SNMP Agent Community ----- 15   Mate Disaster Recovery ----- e   Exit \-----/ </pre> <p>Enter Choice: 6</p>   |
| <p>7. <input type="checkbox"/></p> | <p>Platform menu is displayed. Select PDB Backup.</p>       | <pre> Menu for standard EPAP designation: /-----EPAP Platform Menu-\<br/> \-----/ 1   Initiate Upgrade ----- 2   Reboot MPS ----- 3   MySQL Backup ----- 4   RTDB Backup ----- 5   PDB Backup ----- e   Exit \-----/ </pre> <p>Enter Choice: 5</p> <pre> Menu for PDB-only designation: /-----EPAP Platform Menu-\<br/> \-----/ 1   Initiate Upgrade ----- 2   Reboot MPS ----- 3   MySQL Backup ----- 4   PDB Backup ----- e   Exit \-----/ </pre> <p>Enter Choice: 4</p> |
| <p>8. <input type="checkbox"/></p> | <p>Menu will prompt for a "yes" to continue. Enter a Y.</p> | <pre> Are you sure you want to backup the PDB to /var/TKLC/epap/free/pdbBackup_DBExpPdbOnly_20180613055813_DBBirthd ate_20180613072847GMT_DBLevel_6507_v7.50.bkp.tar.gz? [N]: </pre>   |

## Appendix A.6 PDB Backup

|   |   |  |
|---|---|--|
| <p>9.<br/><input type="checkbox"/></p>  | <p>While the backup is begin performed, the following output will be displayed to the screen.<br/>Note: Only one PDB Backup is allowed, to be stored.</p> | <p>Successfully started backup of PDB.<br/>Status will be displayed on the GUI banner.</p> <p>Press return to continue...</p> <p><b>Note: If following error is displayed instead of success, then you need to delete all pdbBackup from free directory in order to schedule new pdbBackup.</b></p> <p>E1058: An internal error in the EPAP occurred: pdbBackup already exists in free directory.<br/>Press return to continue...</p>  |
| <p>10.<br/><input type="checkbox"/></p> | <p>Exit this menu and return to the login prompt.</p>   | <p>Enter Choice: e</p> <p>Note: If this menu is not exited properly, then the SSH login with root shall remain enabled.</p>  |
| <p>11.<br/><input type="checkbox"/></p> | <p>Monitor GUI banner.</p>  | <p>Monitor the GUI banner. When the backup has completed successfully, continue to the next step.</p>  |
| <p>12.<br/><input type="checkbox"/></p> | <p>Use SFTP to transfer the backup file to a remote customer provided computer.</p>   | <p>Using SFTP (secure-FTP), transfer the PDB backup file to a remote, customer-provided computer. Enter "yes" when prompted if you want to continue to connect.</p> <pre>\$ cd /var/TKLC/epap/free  \$ sftp &lt;IP address of remote computer&gt; Connecting to &lt;IP address of remote computer&gt;... The authenticity of host '&lt;IP address of remote computer&gt;' can't be established. DSA key fingerprint is 58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24. Are you sure you want to continue connecting (yes/no)? <b>yes</b> Warning: Permanently added &lt;IP address of remote computer&gt;' (DSA) to the list of known hosts. root@&lt;IP address of remote computer&gt;'s password: sftp&gt; cd &lt;target directory&gt; sftp&gt; put pdbBackup_&lt;hostname&gt;_20140530151806_DDBirthdate_ 20140530144717GMT_DBLevel_&lt;DBLevel&gt;.bkp.tar.gz Uploading pdbBackup_&lt;hostname&gt;_20140530151806_DDBirthdate_ 20140530144717GMT_DBLevel_&lt;DBLevel&gt;.bkp.tar.gz to pdbBackup_&lt;hostname&gt;_ 20140530151806_DDBirthdate_20140530144717GMT_DBLevel_&lt;DBLevel&gt;.bkp .tar.gz sftp&gt; bye</pre> <p>If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command</p> |

## Appendix A.6 PDB Backup

|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
|                                 |                                 | <pre>\$ su - epapdev  \$ scp /var/TKLC/epap/free/&lt;pdb backup file&gt; epapdev@mate:/var/TKLC/epap/free/</pre> |
| 13.<br><input type="checkbox"/> | Procedure complete.             | Return to the procedure that you came here from.   |
| 14.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><br><pre>\$ date</pre>   |

## Procedure A.7 RTDB Backup

**Note:** Skip this procedure for PDBonly setup.

### Appendix A.7 RTDB Backup

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure performs an RTDB backup on the EPAP server.<br><br>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.<br><br><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</b> |   |
|                                  | 1.<br><input type="checkbox"/>  | <b>MPS :</b> Log in to the server.<br><br>If not already logged-in, then login to the MPS server.<br><pre>&lt;hostname&gt; console login: admusr Password: &lt;password&gt;</pre>   |
|                                  | 2.<br><input type="checkbox"/>  | Enter the epapconfig menu.<br><br>Run the following command:<br><br><pre>\$ sudo su - epapconfig</pre> Warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904.   |
|                                  | 3.<br><input type="checkbox"/>  | Main menu is displayed.<br>Select Platform Menu.<br><br><pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----            </pre> |

## Appendix A.7 RTDB Backup

|    |  |   |
|----|--|---|
|    |  | <pre> 7   Configure NTP Server ----- ----- 8   Security ----- ----- 9   SNMP Configuration ----- ----- 10   Configure Alarm Feed ----- ----- 11   Configure SNMP Agent Community ----- ----- 12   Mate Disaster Recovery ----- ----- e   Exit \----- -----/  Enter Choice: 6 </pre> |
| 4. | Platform menu is displayed. Select RTDB Backup.  | <pre> /-----EPAP Platform Menu-\ /----- -----\ 1   Initiate Upgrade ----- ----- 2   Reboot MPS ----- ----- 3   MySQL Backup ----- ----- 4   RTDB Backup ----- ----- 5   PDB Backup ----- ----- e   Exit \----- -----/  Enter Choice: 4 </pre>                                       |
| 5. | The Application software must be stopped.  | <p>If the EPAP application software is running, you will be prompted to stop the software for the RTDB backup. Select with a “Y”.</p> <pre> EPAP software is running. Stop it? [N]: Y </pre>  |
| 6. | Menu will prompt for a “yes” to continue. Enter a Y.   | <pre> Are you sure you want to backup the PDB to /var/TKLC/epap/free/ rtddbBackup_Recife-A_20140530151806.tar.gz? [N]: </pre>   |
| 7. | While the backup is begin performed, the following output will be displayed to the screen.         | <pre> Successfully started backup of RTDB. Status will be displayed on the GUI banner.  Press return to continue... </pre>  |
| 8. | Exit this menu and return to the login prompt. Continue exiting until you get to the login prompt. | <pre> Enter Choice: e  Enter Choice: e  Note: If this menu is not exited properly, then the SSH login with root shall remain enabled. </pre>  |
| 9. | Monitor GUI banner.  | <p>Monitor the GUI banner. When the backup has completed successfully, continue to the next step.</p>   |

## Appendix A.7 RTDB Backup

|                                 |  |   |
|---------------------------------|--|---|
|                                 |  | <p><b>Note:</b> On performing RTDB backup following two error were observed in cgi.dbg file although rtdb backup is getting completed</p> <p>ERROR: Invalid numbr of argument. Number of argument must be 3 to update RTDB backup DB level properly in pdb.</p> <p>Error: Couldn't able to run the script on Remote Prov with IP (0.0.0.0) having procRc = 255, signal = 0, core = 0.</p>   |
| 10.<br><input type="checkbox"/> | Restart the EPAP Software.   | <p>Restart the EPAP application software.</p> <pre>\$ sudo /etc/init.d/Epap start</pre>   |
| 11.<br><input type="checkbox"/> | Use SFTP to transfer the backup file to a remote customer provided computer. | <p>Using SFTP (secure-FTP), transfer the RTDB backup file to a remote, customer-provided computer. Enter "yes" when prompted if you want to continue to connect.</p> <pre>\$ cd /var/TKLC/epap/free</pre> <pre>\$ sftp &lt;IP address of remote computer&gt;</pre> <p>Connecting to &lt;IP address of remote computer&gt;...<br/>The authenticity of host '&lt;IP address of remote computer&gt;' can't be established.<br/>DSA key fingerprint is<br/>58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24.<br/>Are you sure you want to continue connecting (yes/no)? yes<br/>Warning: Permanently added '&lt;IP address of remote computer&gt;' (DSA) to the list of known hosts.<br/>root@&lt;IP address of remote computer&gt;'s password:<br/>sftp&gt; cd &lt;target directory&gt;<br/>sftp&gt; put rtdbBackup_&lt;hostname&gt;_20140530151806.tar.gz<br/>Uploading rtdbBackup_&lt;hostname&gt;_20140530151806.tar.gz to<br/>rtdbBackup_&lt;hostname&gt;_20140530151806.tar.gz<br/>sftp&gt; bye <p>If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command</p> <pre>\$ su - epapdev</pre> <pre>\$ scp /var/TKLC/epap/free/&lt;rtdb backup file&gt;<br/>epapdev@mate:/var/TKLC/epap/free</pre> </p> |
| 12.<br><input type="checkbox"/> | Procedure complete.  | Return to the procedure that you came here from.  |
| 13.<br><input type="checkbox"/> | Note down the timestamp in log.  | <p>Run the following command:</p> <pre>\$ date</pre>  |

## Procedure A.8 EuiDB Backup

### Appendix A.8 EuiDB Backup

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure performs a backup of the User database on the MPS server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <b>UPGRADE ASSISTANCE</b>.</p> |   |
| 1.<br><input type="checkbox"/>   | <p><b>MPS A:</b> Log in to the server as user "admusr".</p>   | <p><b>&lt;hostname&gt; console login: admusr</b><br/><b>Password: &lt;password&gt;</b></p>  |
| 2.<br><input type="checkbox"/>   | <p>Enter the epapconfig menu.</p>   | <p>Run the following Command:</p> <p><b>\$ sudo su - epapconfig</b></p> <p>warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904.</p>   |
| 3.<br><input type="checkbox"/>   | <p>Master menu is displayed. Select Platform Menu.</p>  | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    10   SNMP Configuration    -----    11   Configure Alarm Feed    -----    12   Configure Query Server    -----    13   Configure Query Server Alarm Feed    -----    14   Configure SNMP Agent Community    -----    15   Mate Disaster Recovery    -----    e   Exit   \-----/ </pre> <p>Enter Choice: 6</p> |

## Appendix A.8 EuiDB Backup

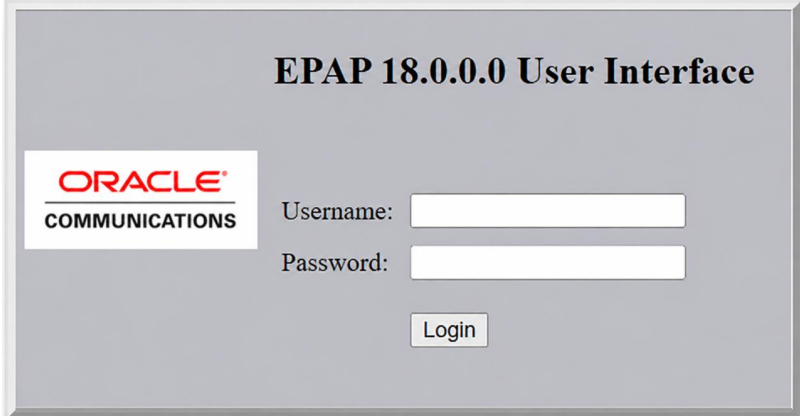
|                                    |   |  |
|------------------------------------|---|--|
| <p>4. <input type="checkbox"/></p> | <p>Platform menu is displayed. Select MySQL Backup.</p>   | <pre> /-----EPAP Platform Menu-\ /-----\   1   Initiate Upgrade    --- -----    2   Reboot MPS    --- -----    3   MySQL Backup    --- -----    4   RTDB Backup    --- -----    5   PDB Backup    --- -----    e   Exit   \-----/  Enter Choice: 3 </pre>  |
| <p>5. <input type="checkbox"/></p> | <p>You will then be prompted to verify that you want to backup the MySQL Database.</p>                              | <p>Are you sure you want to backup the MySQL database on MPS A? [N]:</p>   |
| <p>6. <input type="checkbox"/></p> | <p>Type "Y" and press enter.</p>  | <p>Press Y</p>   |
| <p>7. <input type="checkbox"/></p> | <p>While the backup is begin performed, the following output will be displayed to the screen.</p>                   | <p>NPDB Backed up Successfully to /var/TKLC/appl/free/&lt;file name&gt;</p>  |
| <p>8. <input type="checkbox"/></p> | <p>Exit this menu and return to the Unix login prompt. Continue exiting until you get to the Unix login prompt.</p> | <p>Enter Choice: e</p> <p>Note: If this menu is not exited properly, then the SSH login with root shall remain enabled.</p>  |
| <p>9. <input type="checkbox"/></p> | <p>Use SFTP to transfer the backup file to a remote customer provided computer.</p>                                 | <p>Using SFTP (secure-FTP), transfer the NPDB backup file to a remote, customer-provided computer. Enter "yes" when prompted if you want to continue to connect.</p> <pre> \$ cd /var/TKLC/epap/free  \$ sftp &lt;IP address of remote computer&gt; Connecting to &lt;IP address of remote computer&gt;... The authenticity of host '&lt;IP address of remote computer&gt;' can't be established. DSA key fingerprint is 58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '&lt;IP address of remote computer&gt;' (DSA) to the list of known hosts. root@&lt;IP address of remote computer&gt;'s password: sftp&gt; cd &lt;target directory&gt; </pre> |

## Appendix A.8 EuiDB Backup

|                                 |                                 |  |
|---------------------------------|---------------------------------|--|
|                                 |                                 | <pre>sftp&gt; put npdbBackup_&lt;hostname&gt;_20140530151806.sql.gz Uploading npdbBackup_&lt;hostname&gt;_20140530151806.sql.gz to npdbBackup_&lt;hostname&gt;_20140530151806.sql.gz sftp&gt; bye</pre> <p>If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command</p> <pre>\$ su - epapdev</pre> <pre>\$ scp /var/TKLC/epap/free/&lt;npdb backup file&gt; epapdev @mate:/var/TKLC/epap/free</pre> |
| 10.<br><input type="checkbox"/> | Procedure complete.             | Return to the procedure that you came here from.   |
| 11.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><br><pre>\$ date</pre>   |

## Procedure A.9 RTDB Reload from PDBA


### Appendix A.9 RTDB Reload from PDBA

|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure provides instructions to reload RTDB from PDBA.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p> |  |
|                                  | <p>1.<br/><input type="checkbox"/></p> <p><b>EPAP A:</b> Log in to the web GUI as user "uiadmin".</p>  |  |

## Appendix A.9 RTDB Reload from PDBA

|                                    |  |   |
|------------------------------------|--|---|
| <p>2. <input type="checkbox"/></p> | <p><b>EPAP A:</b> Put EPAP in Force Standby Mode.</p> <p>Expand the “Maintenance” Folder.</p> <p>Expand the “Force Standby” Folder.</p> <p>Select the “Change Status” link.</p> <p>Click on “Activate STANDBY Restriction” Button.</p>     | <div> <p><b>A</b> <u>Change Forced Standby Status</u></p> <p><i>i</i> INFO: The STANDBY restriction is NOT currently in place for EPAP A.</p> <p><b>CAUTION:</b> This action will prevent this EPAP from updating the RTDB until the STANDBY restriction is removed (by executing this menu item again).</p> <p>Activate STANDBY Restriction</p> </div> <div> <p><b>A</b> <u>Change Forced Standby Status</u></p> <p><b>✓</b> SUCCESS: The STANDBY restriction is now ON.</p> </div>  |
| <p>3. <input type="checkbox"/></p> | <p><b>EPAP A:</b> Reload RTDB from PDBA.</p> <p>Expand the “RTDB” Folder.</p> <p>Expand the “Maintenance” Folder.</p> <p>Select the “Reload from PDBA” link.</p> <p>Click on the “Reload” Button.</p> <p>Observe the “SUCCESS” Status.</p> | <div> <p><b>A</b> <u>Reload RTDB from PDBA</u></p> <p><b>CAUTION:</b> This action will cause the selected RTDB to be completely reloaded from the PDBA. Once the action is started, the RTDB will be unusable until the reload is completed. It is necessary for this EPAP to be in Forced Standby mode to ensure that it will not attempt to become ACTIVE while the reload is in progress.</p> <p>Continue with the reload only if you are sure.</p> <p>Reload</p> </div> <div> <p><b>A</b> <u>Reload RTDB from PDBA</u></p> <p><b>✓</b> SUCCESS: The reload has been initiated. You can check its progress by viewing the RTDB status. Also, an informational message has been added to the Banner. The message will be cleared when the reload is complete.</p> </div> |
| <p>4. <input type="checkbox"/></p> | <p><b>EPAP A:</b> Wait for completion.</p> <p>Observe the GUI informational message and wait for the RTDB Reload completion message before proceeding.</p>   |   |

## Appendix A.9 RTDB Reload from PDBA

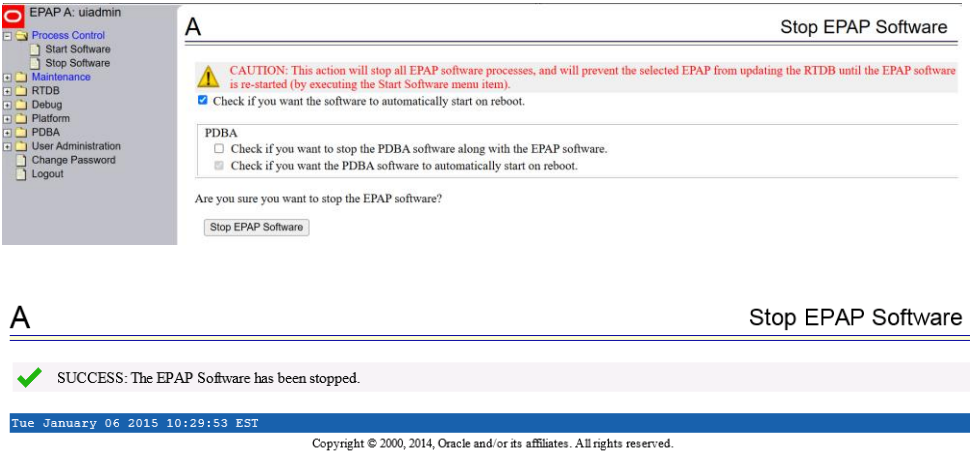
|                                    |   |    |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
|------------------------------------|---|--|-------------------|--|------------|----------|-------------|---|------------|---|---------|--|---------|-----------------------------|----------|-----|---------|------|
| <p>5. <input type="checkbox"/></p> | <p><b>EPAP A:</b> Remove EPAP from Force Standby Mode.</p> <p>Expand the “Maintenance” Folder.</p> <p>Expand the “Force Standby” Folder.</p> <p>Select the “Change Status” link.</p> <p>Click on “Remove STANDBY Restriction” Button.</p> | <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>A</b> <span style="float: right;">Change Forced Standby Status</span></p> <hr/> <p><b>i</b> INFO: The STANDBY restriction is currently in place for EPAP A.</p> <p><b>⚠</b> CAUTION: This action will allow this EPAP to resume updating the RTDB.</p> <p style="text-align: center;"><a href="#">Remove STANDBY Restriction</a></p> <hr/> <p style="text-align: center;"><b>A</b> <span style="float: right;">Change Forced Standby Status</span></p> <hr/> <p><b>✓</b> SUCCESS: The STANDBY restriction is now OFF.</p> </div>  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
| <p>6. <input type="checkbox"/></p> | <p><b>EPAP A:</b> Verify RTDB status.</p> <p>Expand the “RTDB” Folder.</p> <p>Select the “View RTDB Status” link.</p>   | <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>A</b> <span style="float: right;">View RTDB Status</span></p> <hr/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Local RTDB Status</th> </tr> </thead> <tbody> <tr> <td>DB Status:</td> <td style="color: green;">Coherent</td> </tr> <tr> <td>RTDB Level:</td> <td>1</td> </tr> <tr> <td>PDB Level:</td> <td>1</td> </tr> <tr> <td>Counts:</td> <td>IMSI=0, DN=0, DN Blocks=0, NEs=1, ASDs=0</td> </tr> <tr> <td>Tables:</td> <td>IMSI=0, DN=0, IMEI=0, ASD=0</td> </tr> <tr> <td>DB Size:</td> <td>3 M</td> </tr> <tr> <td>Reload:</td> <td>None</td> </tr> </tbody> </table> <p style="text-align: right; margin-top: 5px;">           Audit Enabled: Yes<br/>           RTDB Birthday: 05/22/2014 14:57:49 GMT<br/>           PDB Birthday: 05/09/2014 07:51:44 GMT<br/>           MinDsmSz: 0 MB (0)         </p> </div> <p>The RTDB Status must be Coherent.</p> | Local RTDB Status |  | DB Status: | Coherent | RTDB Level: | 1 | PDB Level: | 1 | Counts: | IMSI=0, DN=0, DN Blocks=0, NEs=1, ASDs=0 | Tables: | IMSI=0, DN=0, IMEI=0, ASD=0 | DB Size: | 3 M | Reload: | None |
| Local RTDB Status                  |   |  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
| DB Status:                         | Coherent  |  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
| RTDB Level:                        | 1   |  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
| PDB Level:                         | 1   |  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
| Counts:                            | IMSI=0, DN=0, DN Blocks=0, NEs=1, ASDs=0  |  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
| Tables:                            | IMSI=0, DN=0, IMEI=0, ASD=0   |  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
| DB Size:                           | 3 M   |  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |
| Reload:                            | None  |  |                   |  |            |          |             |   |            |   |         |  |         |                             |          |     |         |      |

## Appendix A.9 RTDB Reload from PDBA

|                                |                                 |  |
|--------------------------------|---------------------------------|--|
|                                |                                 | Note: RTDB Reload from PDBA completed banner message will not be observed and same is not pegged in cgi.dbg. Completion of RTDB Reload from PDBA is completed when PRD-RTDB parameter sync is observed |
| 7.<br><input type="checkbox"/> | Procedure complete.             | Return to the procedure that you came here from.   |
| 8.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><br><b>\$ date</b>   |

## Procedure A.10 RTDB Restore

### Appendix A.10 RTDB Restore

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure provides instructions to restore RTDB from a backup file.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p> |   |
| 1.<br><input type="checkbox"/>   | <p><b>EPAP A:</b> Log in to the web GUI as user "uiadmin".</p>   |   |
| 2.<br><input type="checkbox"/>   | <p><b>EPAP A:</b> Stop Software.</p> <p>On the menu, click Process Control-&gt;Stop Software.</p> <p>Click "Stop EPAP Software" Button</p>   |  <p>The screenshot shows the 'Stop EPAP Software' dialog box. On the left is a navigation menu with items like 'Process Control', 'Start Software', 'Stop Software', 'Maintenance', 'RTDB', 'Debug', 'Platform', 'PDBA', 'User Administration', 'Change Password', and 'Logout'. The main area contains a 'CAUTION' warning: 'CAUTION: This action will stop all EPAP software processes, and will prevent the selected EPAP from updating the RTDB until the EPAP software is re-started (by executing the Start Software menu item)'. Below this are two checkboxes: 'Check if you want the software to automatically start on reboot.' (checked) and 'PDBA' section with 'Check if you want to stop the PDBA software along with the EPAP software.' and 'Check if you want the PDBA software to automatically start on reboot.' (unchecked). At the bottom, it asks 'Are you sure you want to stop the EPAP software?' and has a 'Stop EPAP Software' button.</p> |

## Appendix A.10 RTDB Restore

### 3. EPAP A: Restore RTDB.



On the menu, click RTDB->Maintenance->Restore RTDB

Select the backup file, then click "Restore RTDB from the Selected File" Button

Click "Confirm RTDB Restore" Button

The screenshot shows the EPAP A: uiaadmin interface. On the left is a navigation tree with 'RTDB' expanded to 'Maintenance', where 'Restore RTDB' is highlighted in yellow. The main window title is 'A' and 'Restore the RTDB'. Below the title bar, there is a text field for 'Please specify the sub directory (default is /var/TKLC/epap/free)' and a 'File Path' input field. An 'OK' button is visible below the input fields. A status bar at the bottom shows the date 'Wed June 24 2026 02:57:19 EDT' and the copyright notice 'Copyright © 2000, 2026, Oracle and/or its affiliates. All rights reserved.'

The screenshot shows the 'A' window titled 'Restore the RTDB'. A red warning icon and message state: 'CAUTION: This action will restore the RTDB from the specified file on the selected EPAP. The EPAP software must be stopped on the selected EPAP in order for the restore to be allowed.' Below this is a table with the following data:

| Select                   | Type       | Originating Host | File Name                              | File Size  | Creation Time                    |
|--------------------------|------------|------------------|--|------------|----------------------------------|
| <input type="checkbox"/> | rtdbBackup | Recife-A         | <a href="#">rtdbBackup_Recife-A...</a> | 577K bytes | Tue January 06 2015 10:25:35 EST |

Below the table is a button labeled 'Restore RTDB from the Selected File.'

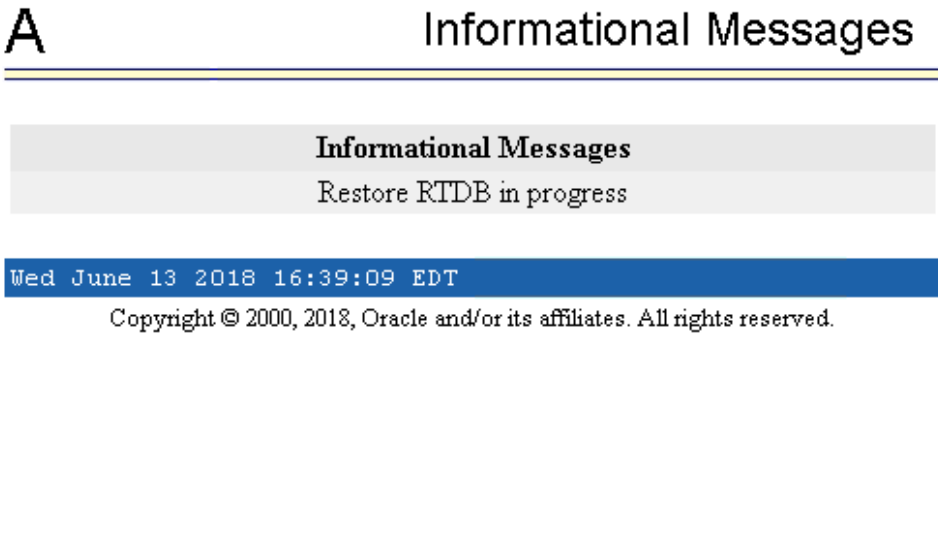
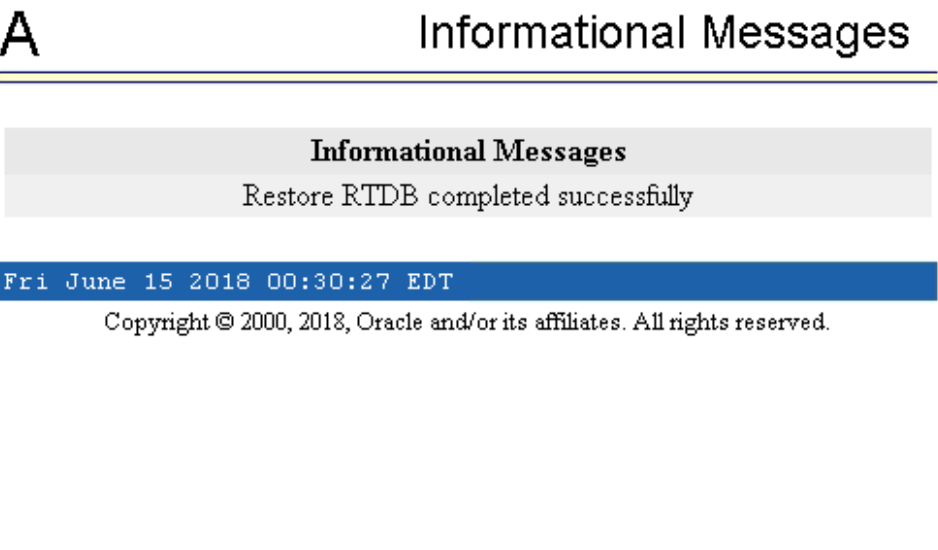
The screenshot shows the 'A' window titled 'Restore the RTDB'. A red warning icon and message state: 'CAUTION: This backup file may be incompatible with your system.' Below this is the question: 'Are you sure that you want to restore the RTDB from the file rtdbBackup\_Cusco-A\_20181128103003\_DBBirthdate\_20141015030619GMT\_DBLevel\_78687002\_v4.72.bkp.tar.gz ?' A 'Confirm RTDB Restore' button is located below the question.

**NOTE:** Caution message regarding "incompatible file" is displayed in above snapshot as the backup file is taken on RTDB version 4 and is being restored on RTDB version 5.

**Restore successfully started:**

The screenshot shows the 'A' window titled 'Restore the RTDB'. A green checkmark icon and message state: 'SUCCESS: Successfully started restore of RTDB from file rtdbBackup\_Floater-03\_20170510021047\_v4.72.bkp.tar.gz . Restore status will be displayed on Banner message window.' Below this is a status bar showing the date 'Wed June 13 2018 16:38:09 EDT' and the copyright notice 'Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.'

## Appendix A.10 RTDB Restore

|   |   |   |
|---|---|---|
| <p>4. <input type="checkbox"/></p> <p><b>EPAP A:</b> Make EPAP down.</p> <p>An IM alarm should be observed with informational message on EPAP GUI confirming that restore RTDB is in progress.</p> <p>An IM alarm should be observed with informational message on EPAP GUI confirming that restore RTDB completed successfully.</p> <p>Click “Confirm RTDB Restore” Button</p> |   | <p>Confirming that Restore RTDB in progress:</p>  <p>Confirming that Restore RTDB is completed successfully:</p>  |
| <p>5. <input type="checkbox"/></p>  | <p><b>EPAP A:</b> RTDB converter is started.</p> <p>An IM alarm should be observed with informational message</p> | <p>This step is performed only to support EAGLE release 46.7.0.0.0 (On the setup where DB Architecture is eXtreme):</p>   |

## Appendix A.10 RTDB Restore

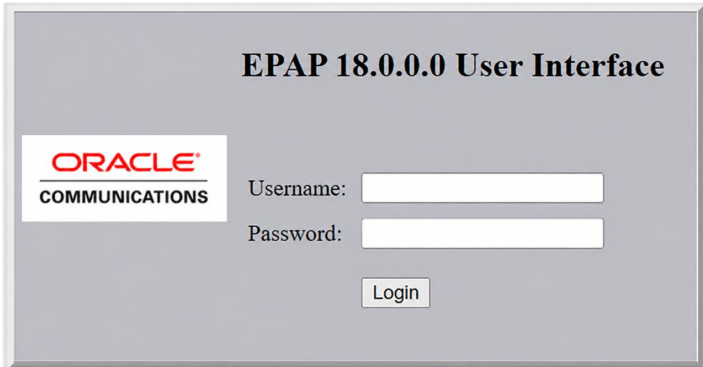
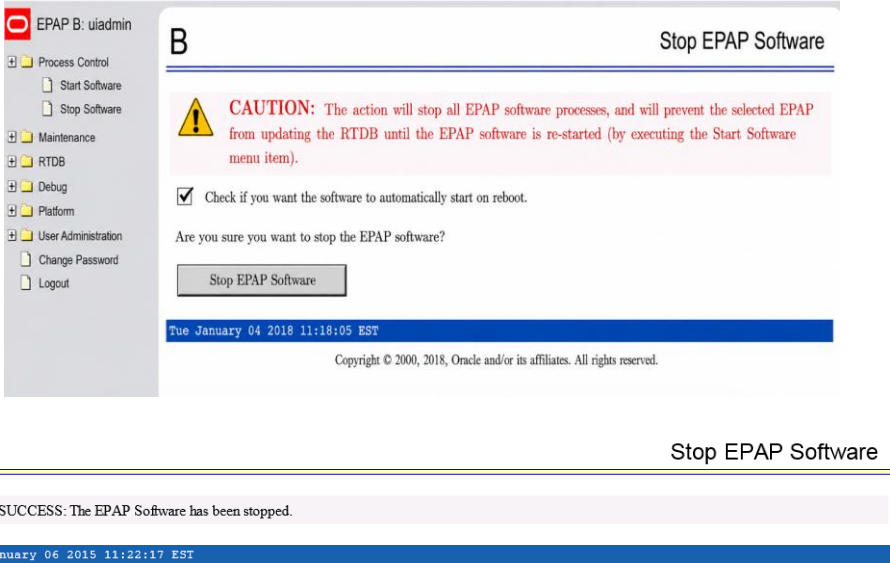
|                                    |  |   |
|------------------------------------|--|---|
|                                    | <p>on EPAP GUI confirming that RTDB Conversion in progress.</p> <p>An IM alarm should be observed with informational message on EPAP GUI confirming that RTDB Conversion completed successfully.</p> | <div style="text-align: center;"> <h3>A Informational Messages</h3> <hr/> </div> <div style="text-align: center; background-color: #f0f0f0; padding: 5px;"> <p><b>Informational Messages</b><br/>RTDB Conversion in progress</p> </div> <div style="background-color: #0056b3; color: white; padding: 2px;"> <p>Wed June 13 2018 16:55:42 EDT</p> </div> <div style="text-align: center;"> <p>Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p> </div><br><div style="text-align: center;"> <h3>A Informational Messages</h3> <hr/> </div> <div style="text-align: center; background-color: #f0f0f0; padding: 5px;"> <p><b>Informational Messages</b><br/>RTDB conversion completed successfully</p> </div> <div style="background-color: #0056b3; color: white; padding: 2px;"> <p>Fri June 15 2018 00:37:57 EDT</p> </div> <div style="text-align: center;"> <p>Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p> </div> <p><b>Note:</b> On performing RTDB Restore following two error were observed in cgi.dbg file although rtdb restore is getting completed</p> <p>ERROR: Invalid numbr of argument. Number of argument must be 3 to update RTDB backup DB level properly in pdb.</p> <p>Error: Couldn't able to run the script on Remote Prov with IP (0.0.0.0) having procRc = 255, signal = 0, core = 0.</p> |
| <p>6. <input type="checkbox"/></p> | <p>Procedure complete.</p>   | <p>Return to the procedure that you came here from.</p>   |

## Appendix A.10 RTDB Restore

|                                |                                 |  |
|--------------------------------|---------------------------------|--|
| 7.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><br><b>\$ date</b> |
|--------------------------------|---------------------------------|--|

## Procedure A.11 RTDB Reload from Remote

### Appendix A.11 RTDB Reload from Remote

|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure provides instructions to restore RTDB from a backup file.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p> |  |
| 1.<br><input type="checkbox"/>   | <p><b>EPAP B:</b> Log in to the web GUI as user “uiadmin”.</p>   |   |
| 2.<br><input type="checkbox"/>   | <p><b>EPAP B:</b> Stop Software.</p> <p>On the menu, click Process Control-&gt;Stop Software.</p> <p>Click “Stop EPAP Software” Button</p>   |  |

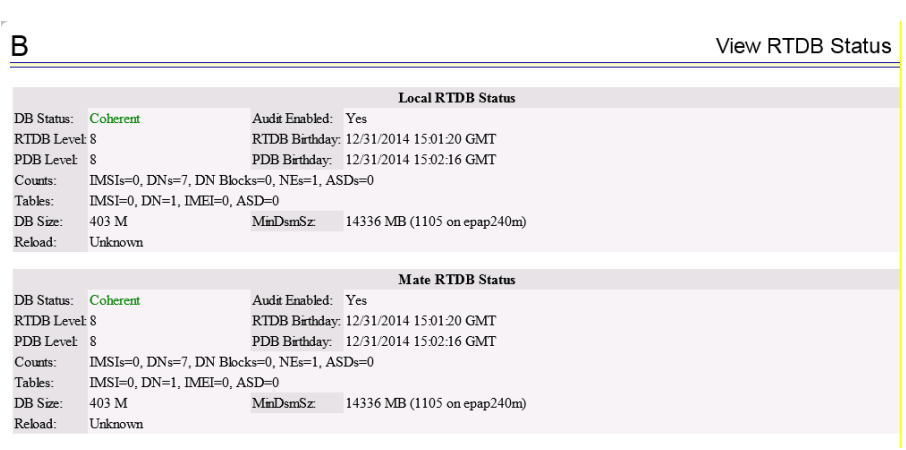
## Appendix A.11 RTDB Reload from Remote

|                                    |  |  |
|------------------------------------|--|--|
| <p>3. <input type="checkbox"/></p> | <p><b>EPAP B:</b> Reload RTDB from Remote.</p> <p>On the menu, click RTDB-&gt;Maintenance-&gt;Reload from Remote</p> <p>Select Mate.</p> <p>Click “Begin RTDB Reload from Remote” Button</p> <p>Click “Confirm RTDB Reload from Remote” Button</p>                           | <p><b>NOTE:</b> If reload is attempted from a remote non-Prov site, kindly exchange the keys between this Non-Prov and the Non-Prov from where reload is being attempted. If reload is from mate, no need to do anything.</p> <p><b>B</b></p> <hr/> <p><b>This action will copy the RTDB from the specified source machine to the local machine. The EPAP on both the source and destination machine in order for the copy to be allowed.</b></p> <div> <p>Source EPAP: <input checked="" type="radio"/> Mate <input type="radio"/> Remote IP <input type="text" value="IPv4"/></p> <p><input type="text"/></p> </div> <p><input type="button" value="Begin RTDB Reload from Remote"/></p> <p>Tue March 01 2016 09:18:31 EST</p> <p>Copyright © 2000, 2015, Oracle and/or its affiliates. All rights reserved.</p> <p><b>B</b> <span style="float: right;">Reload RTDB from Remote</span></p> <hr/> <p>Are you sure that you want to reload the RTDB from the mate?</p> <p><input type="button" value="Confirm RTDB Reload from Remote"/></p> |
| <p>4. <input type="checkbox"/></p> | <p><b>EPAP B:</b> Reload RTDB from Mate</p> <p>An IM alarm should be observed with informational message on EPAP GUI confirming the start of the reload process</p> <p>An informational alarm should be displayed with informational message when the reload is complete</p> | <p><b>B</b></p> <hr/> <p style="text-align: center;"><b>Informational Messages</b></p> <hr/> <div> <p style="text-align: center;"><b>Informational Messages</b></p> <p style="text-align: center;">Reload RTDB from mate in progress</p> </div> <p>Tue June 12 2018 18:57:47 EDT</p> <p>Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p>  |

## Appendix A.11 RTDB Reload from Remote

|                                |  |  |
|--------------------------------|--|--|
|                                |  | <p><b>B</b> <span style="float: right;"><b>Informational Messages</b></span></p> <hr/> <div style="text-align: center; background-color: #f0f0f0; padding: 5px;"> <b>Informational Messages</b><br/>         Reload RTDB from mate completed successfully       </div> <div style="background-color: #0056b3; color: white; padding: 2px;">         Tue June 12 2018 19:01:21 EDT       </div> <p style="text-align: center; font-size: small;">Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p> |
| 5.<br><input type="checkbox"/> | MPS A and B:<br>Restart the GUI Server process.          | <p><b>Login to EPAP cli as root user:</b></p> <p><b>Login:</b> root</p> <p><b>Password:</b> &lt;root_password&gt;</p> <p><b>Run following commands to restart GUI server process</b></p> <p><b>\$ pkill gs</b></p>   |
| 6.<br><input type="checkbox"/> | MPS A and B:<br>Start the Epap software on EPAP A and B. | <p><b>Run the following command on EPAP 18.0 Servers:</b></p> <pre>\$ [epapdev@Manaus-a ~]\$ service Epap start ~~ /etc/init.d/Epap start ~~ EPAP application started.</pre> <pre>\$ \$ [epapdev@Manaus-a ~]\$ ssh mate \$</pre> <pre>\$ [epapdev@Manaus-b ~]\$ service Epap start ~~ /etc/init.d/Epap start ~~ EPAP application started.</pre> <pre>\$ [epapdev@Manaus-b ~]\$ exit logout</pre> <p>Run the following command on EPAP 17.0 to start EPAP Services:</p>   |

## Appendix A.11 RTDB Reload from Remote

|                                    |  |   |
|------------------------------------|--|---|
|                                    |  | <pre>[epapdev@Manaus-a logs]# systemctl start Epap [epapdev@Manaus-a ~]\$ ssh mate  =====    This system has been upgraded but the upgrade has not yet     been accepted or rejected. Please accept or reject the     upgrade soon.    =====  Last login: Fri Jan 20 03:50:19 2023 [epapdev@Manaus-b ~]\$ systemctl start Epap [epapdev@Manaus-b ~]\$ exit logout Connection to mate closed. ==== AUTHENTICATING FOR org.freedesktop.systemd1.manage-units ==== Authentication is required to start 'Epap.service'. Authenticating as: epapdev user (epapdev) Password: ==== AUTHENTICATION COMPLETE ==== [epapdev@Manaus-a ~]\$</pre>  |
| <p>7. <input type="checkbox"/></p> | <p><b>MPS A:</b><br/> <b>Checking the RTDB Status</b></p> <p><b>Log onto the GUI of the A server and select RTDB, View RTDB Status.</b></p> <p><b>Verify that the DB status for the local and the mate is Coherent</b></p> |  <p>The screenshot shows the 'View RTDB Status' window with a 'B' icon in the top left. It displays two sections: 'Local RTDB Status' and 'Mate RTDB Status'. Both sections show the following details:</p> <ul style="list-style-type: none"> <li>DB Status: <b>Coherent</b></li> <li>Audit Enabled: Yes</li> <li>RTDB Level: 8</li> <li>RTDB Birthday: 12/31/2014 15:01:20 GMT</li> <li>PDB Level: 8</li> <li>PDB Birthday: 12/31/2014 15:02:16 GMT</li> <li>Counts: IMSIs=0, DN=7, DN Blocks=0, NEs=1, ASDs=0</li> <li>Tables: IMSI=0, DN=1, IMEI=0, ASD=0</li> <li>DB Size: 403 M</li> <li>MmDsmSz: 14336 MB (1105 on epap240m)</li> <li>Reload: Unknown</li> </ul> |

## Appendix A.11 RTDB Reload from Remote

|                                |                                 |  |
|--------------------------------|---------------------------------|--|
| 8.<br><input type="checkbox"/> | Procedure complete.             | Procedure Complete.                          |
| 9.<br><input type="checkbox"/> | Note down the timestamp in log. | Run the following command:<br><b>\$ date</b> |

## Procedure A.12 ISO Image download from Oracle Software Delivery Cloud

This procedure defines the step to download the ISO from OSDC and copy to the test server at specific path.

## Appendix A.12 ISO Image download from OSDC

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure provides instructions to download an ISO image from OSDC and copy to the required server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR UPGRADE ASSISTANCE.</b></p>  |   |
|                                  | 1.   | <p><b>MPS X:</b> Log in to the server as the “admusr” user.</p> <p><b>[hostname] console login: admusr</b><br/><b>password: &lt;admusr_password&gt;</b></p> |
| 2.                               | <p><b>MPS X:</b> Run syscheck to make sure there is no error.</p> <p>Run the following command:<br/><b>\$ sudo syscheck</b></p> <p>The output should look like:</p> <pre>[admusr@hostname ~] \$ syscheck Running modules in class disk...                                 OK Running modules in class hardware...                                 OK Running modules in class net...                                 OK Running modules in class proc...                                 OK Running modules in class system...                                 OK Running modules in class upgrade...                                 OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre> <p>Note: syscheck may report following error which can be ignored:<br/>* defaultroute: FAILURE:: MINOR::500000000040000 -- Platform Health Check Failure<br/>* defaultroute: FAILURE:: ping6 return non-zero code</p> |   |

## Appendix A.12 ISO Image download from OSDC

|       |   | <p>* defaultroute: FAILURE:: MAJOR::3000000000002000 -- Server Default Route Network Error</p> <p>* defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged</p>  |       |                       |              |   |       |   |   |          |   |   |                |   |
|-------|---|--|-------|-----------------------|--------------|---|-------|---|---|----------|---|---|----------------|---|
| 3.    | <p><b>MPS X:</b> Verify ISO image doesn't already exist.</p>      | <p>Run the following command to perform directory listing:<br/> <b>\$ ls -alrt /var/TKLC/upgrade</b></p> <p>The output should look like as follows (There is no ISO is present in following example):</p> <pre>[admusr@Osorna-B-PDBonly ~]\$ ls -alrt /var/TKLC/upgrade/ total 12 drwxrwxr-x.  3 root admgrp 4096 Feb 19 21:43 . dr-xr-xr-x. 22 root root  4096 Jun 15  2018 ..</pre> <p>If an ISO image exists, remove it by running the following command:<br/> <b>\$ rm -f /var/TKLC/upgrade/&lt;ISO image&gt;</b></p>  |       |                       |              |   |       |   |   |          |   |   |                |   |
| 4.    | <p><input type="checkbox"/> Download the ISO image from OSDC.</p> | <p>Download the ISO image from OSDC(Oracle Software Delivery Cloud).</p> <p>In case of DIU upgrade, please make sure to download the diuPreUpgrade.sh script along with the respective ISO.</p> <table border="1"> <thead> <tr> <th>SI No</th> <th>Destination Plat type</th> <th>DIU ISO name</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Mixed</td> <td>EPAP-18.0.0.0.0_180.4.0-x86_64-Mixed-NonProv-APPB-DIU.iso</td> </tr> <tr> <td>2</td> <td>Non-Prov</td> <td>EPAP-18.0.0.0.0_180.4.0-x86_64-Mixed-NonProv-APPB-DIU.iso</td> </tr> <tr> <td>3</td> <td>PDBonly Single</td> <td>EPAP-18.0.0.0.0_180.4.0-x86_64-PDBonly-APPB-DIU.iso</td> </tr> </tbody> </table> | SI No | Destination Plat type | DIU ISO name | 1 | Mixed | EPAP-18.0.0.0.0_180.4.0-x86_64-Mixed-NonProv-APPB-DIU.iso | 2 | Non-Prov | EPAP-18.0.0.0.0_180.4.0-x86_64-Mixed-NonProv-APPB-DIU.iso | 3 | PDBonly Single | EPAP-18.0.0.0.0_180.4.0-x86_64-PDBonly-APPB-DIU.iso |
| SI No | Destination Plat type   | DIU ISO name   |       |                       |              |   |       |   |   |          |   |   |                |   |
| 1     | Mixed   | EPAP-18.0.0.0.0_180.4.0-x86_64-Mixed-NonProv-APPB-DIU.iso  |       |                       |              |   |       |   |   |          |   |   |                |   |
| 2     | Non-Prov  | EPAP-18.0.0.0.0_180.4.0-x86_64-Mixed-NonProv-APPB-DIU.iso  |       |                       |              |   |       |   |   |          |   |   |                |   |
| 3     | PDBonly Single  | EPAP-18.0.0.0.0_180.4.0-x86_64-PDBonly-APPB-DIU.iso  |       |                       |              |   |       |   |   |          |   |   |                |   |

## Appendix A.12 ISO Image download from OSD

|    |   |   |                   |   |
|----|---|---|-------------------|---|
|    |   | 4   | PDBOnly Segmented | EPAP-<br>18.0.0.0.0_180.4<br>.0-x86_64-<br>PDBOnly-APPB-<br>DIU.iso |
| 5. | <input type="checkbox"/> Copy the ISO from source path to destination path. | <p><b>NOTE: Skip this step if same ISO is already present on destination folder.</b></p> <p>Copy the ISO image from source path to destination path using scp/ftp command.</p> <p>Run the following command on destination server:</p> <pre>\$ sudo scp &lt;source_username&gt;@&lt;source_server_IP&gt;:/&lt;source_path&gt;/xyz.iso /var/TKLC/upgrade</pre> <p>Password: &lt;enter source userpassword&gt;</p> <p>OR,</p> <p>Run the following command on source server:</p> <pre>\$ scp /&lt;source_path&gt;/&lt;xyz.iso&gt; admusr@&lt;destination_server_IP&gt;:/var/TKLC/upgrade</pre> <p>Password: &lt;Enter admusr password&gt;</p>   |                   |   |
| 6. | In case of DIU Upgrade, copy the diuPreUpgrade.sh, else skip this step.     | <p><b>NOTE: Skip this step if same script is already present on destination folder.</b></p> <p>Copy the diuPreUpgrade.sh from source path to destination path using scp/ftp command.</p> <p>Run the following command on destination server:</p> <pre>\$ sudo scp &lt;source_username&gt;@&lt;source_server_IP&gt;:/&lt;source_path&gt;/diuPreUpgrade.sh /tmp</pre> <p>Password: &lt;enter source userpassword&gt;</p> <p>OR,</p> <p>Run the following command on source server:</p> <pre>\$ scp /&lt;source_path&gt;/&lt;diuPreUpgrade.sh&gt; admusr@&lt;destination_server_IP&gt;:/tmp</pre> <p>Password: &lt;Enter admusr password&gt;</p> |                   |   |

## Appendix A.12 ISO Image download from OSDC

|     |  |  |
|-----|--|--|
| 7.  | <b>MPS X:</b> Verify ISO image copied on destination path. | <p>Run the following command to perform directory listing:<br/> <b>\$ ls -alrt /var/TKLC/upgrade</b></p> <p>The output should look like:<br/> [admusr@hostname ~]\$ ls -alrt /var/TKLC/upgrade<br/> total 1599016<br/> -r--r----- 1 root root 925388800 Aug 23 02:15 EPAP-16.3.0.0.0_163.12.0-x86_64.iso<br/> dr-xr-xr-x. 22 root root 4096 Aug 23 02:31 ..<br/> drwxrwxr-x. 3 root admgrp 4096 Sep 11 04:38 .</p> <p>Repeat this procedure from step 1 if EPAP ISO file is not as expected.</p> |
| 8.  | <b>MPS X:</b> Validate ISO file.                           | Validate ISO file using <a href="#">Procedure A.2</a> .  |
| 9.  | <b>Procedure complete.</b>                                 | This procedure is complete.  |
| 10. | Note down the timestamp in log.                            | Run the following command:<br><b>\$ date</b>   |

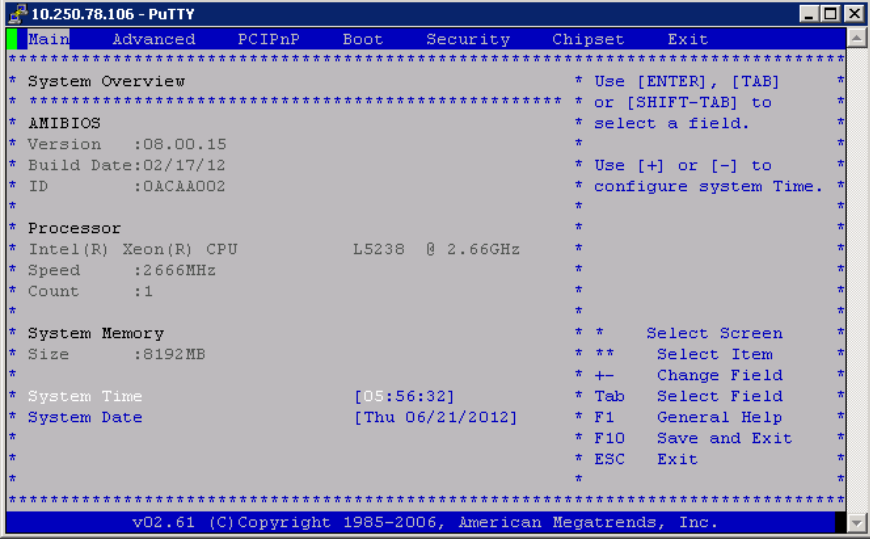
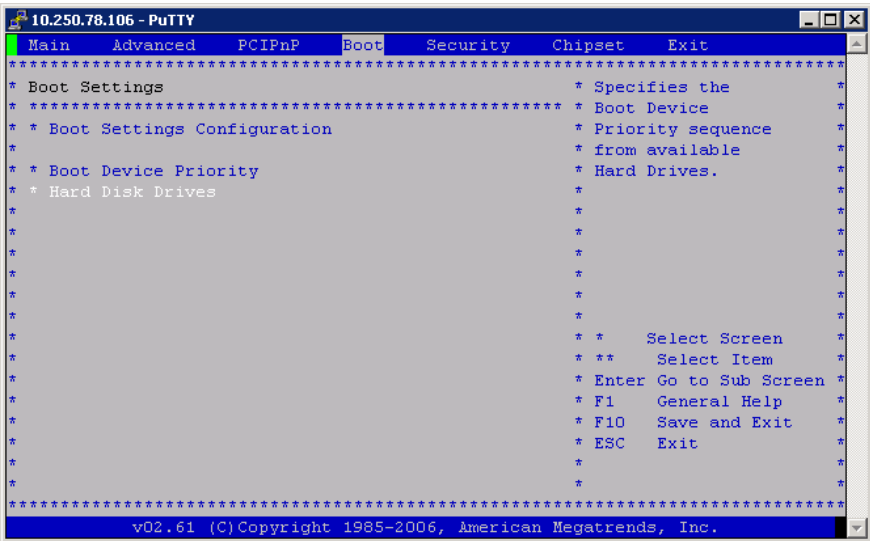
## Procedure A.13 IPM MPS Server with TPD 8.6.0

**Note:** Both the MPS-A and MPS-B servers can be IPM'ed at the same time.

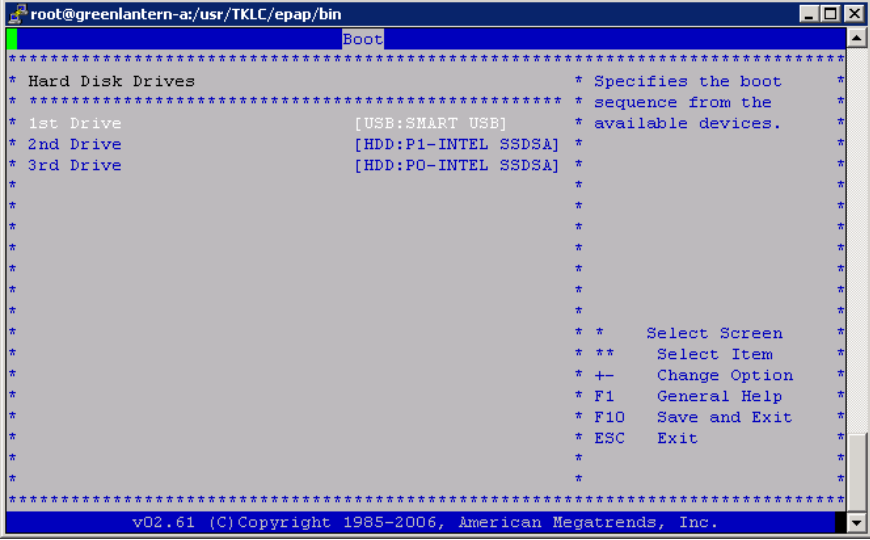
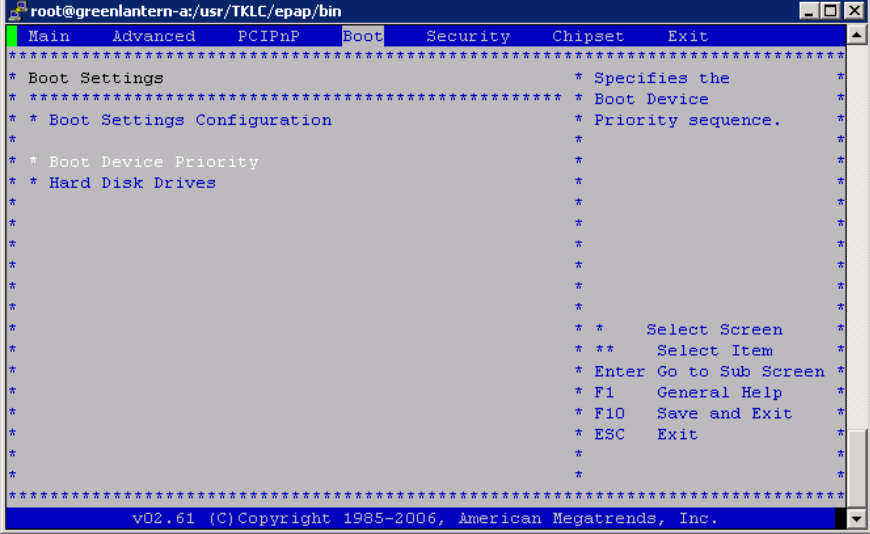
### Appendix A.13 IPM with TPD 8.6.0

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure will IPM the E5-APP-B Server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <b>UPGRADE ASSISTANCE</b>.</p> |   |
|                                  | <p>1.</p> <p><b>MPS X:</b><br/> <input type="checkbox"/> Insert TPD 8.6.0 USB media into the USB port (E5-APP-B)</p>  | <p>Reboot server<br/> <b># reboot</b></p> |

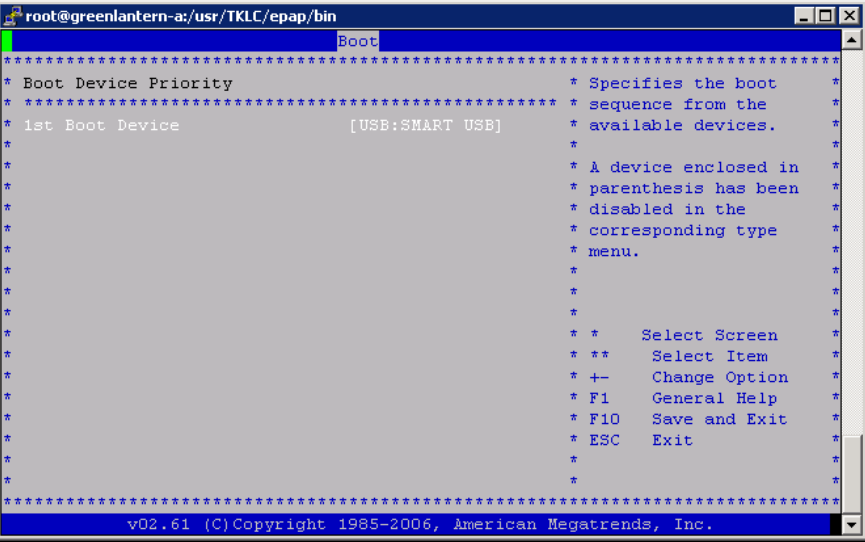
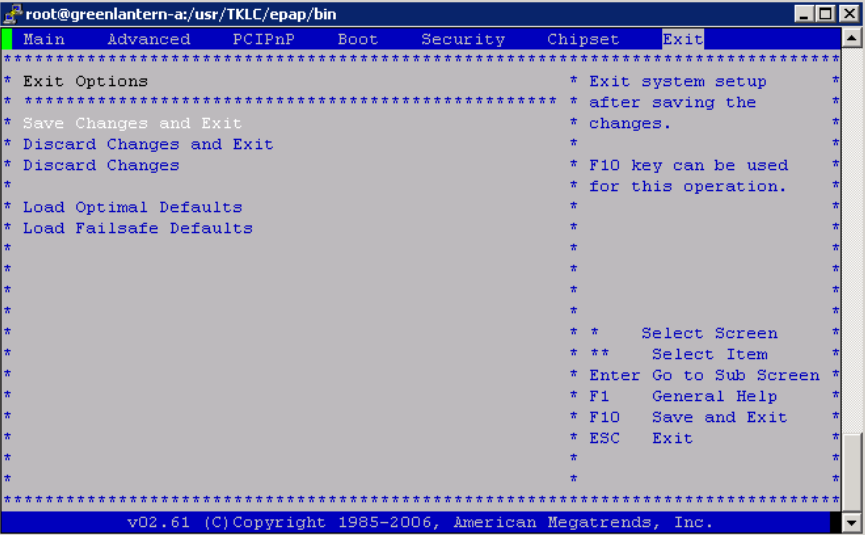
## Appendix A.13 IPM with TPD 8.6.0

|                                    |   |   |
|------------------------------------|---|---|
| <p>2. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Press 'del' key to enter the BIOS, set System Time to GMT time, and System Date.</p> |  <p>The screenshot shows the BIOS 'System Overview' screen. The 'Main' menu is selected. The screen displays system information including AMIBIOS version (08.00.15), processor (Intel(R) Xeon(R) CPU L5238 @ 2.66GHz), system memory (8192MB), system time ([05:56:32]), and system date ([Thu 06/21/2012]). Navigation instructions are provided on the right side of the screen.</p> |
| <p>3. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Select <i>Boot</i> → <i>Hard Disk Drives</i> option</p>                              |  <p>The screenshot shows the BIOS 'Boot Settings' screen. The 'Boot' menu is selected. The screen displays boot settings including boot device priority and hard disk drives. Navigation instructions are provided on the right side of the screen.</p>  |
| <p>4. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Press 'Enter' key and select USB as the 1<sup>st</sup> Drive</p>                     |   |

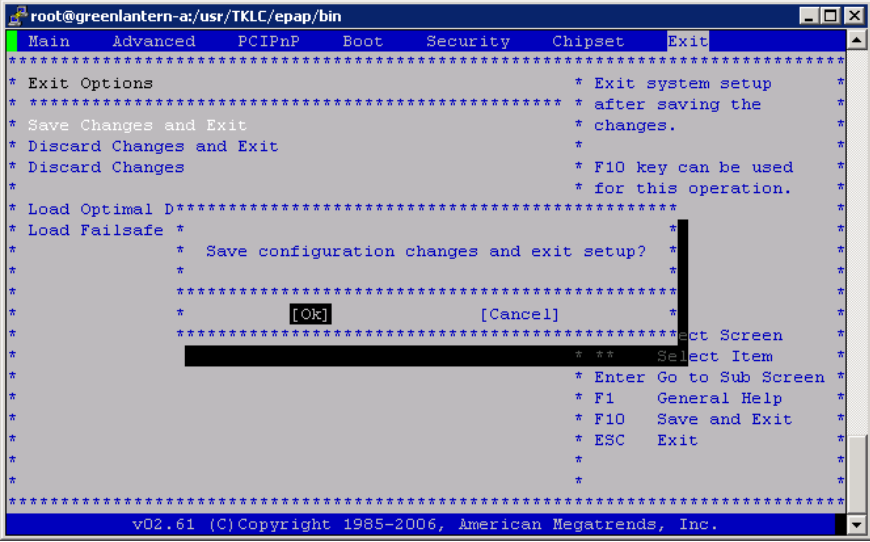
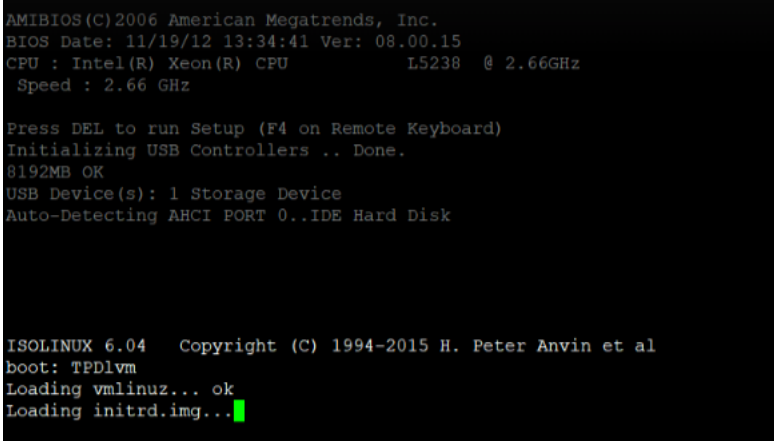
Appendix A.13 IPM with TPD 8.6.0

|                                    |  |   |
|------------------------------------|--|---|
|                                    |  |   |
| <p>5. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Press 'Esc' key and select Boot Device Priority</p>           |  |
| <p>6. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Verify that the 1<sup>st</sup> Boot Device is set to USB.</p> |   |

## Appendix A.13 IPM with TPD 8.6.0

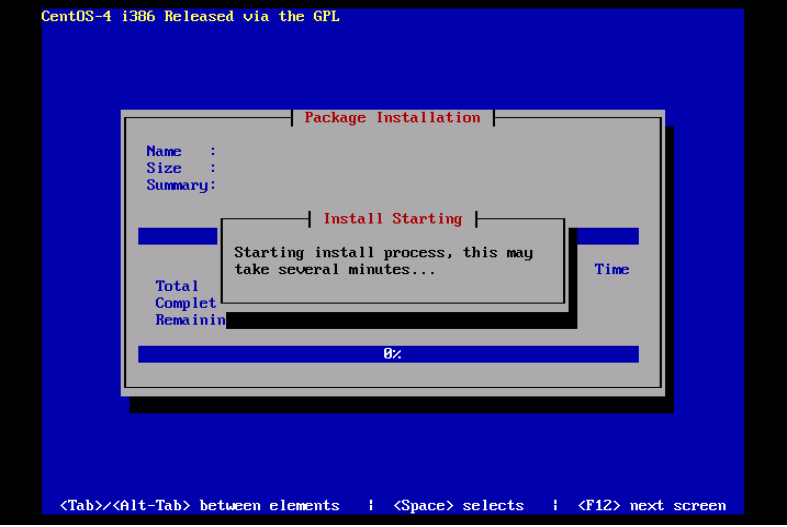

|                                    |  |   |
|------------------------------------|--|---|
|                                    |  |   |
| <p>7. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Press 'Esc' key and select <i>Exit</i> → <i>Save Changes and Exit</i> option</p>                                  |  |
| <p>8. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Select [OK] to save the configuration changes.</p> <p>The server will reboot and TPD boot prompt will appear.</p> |   |

## Appendix A.13 IPM with TPD 8.6.0

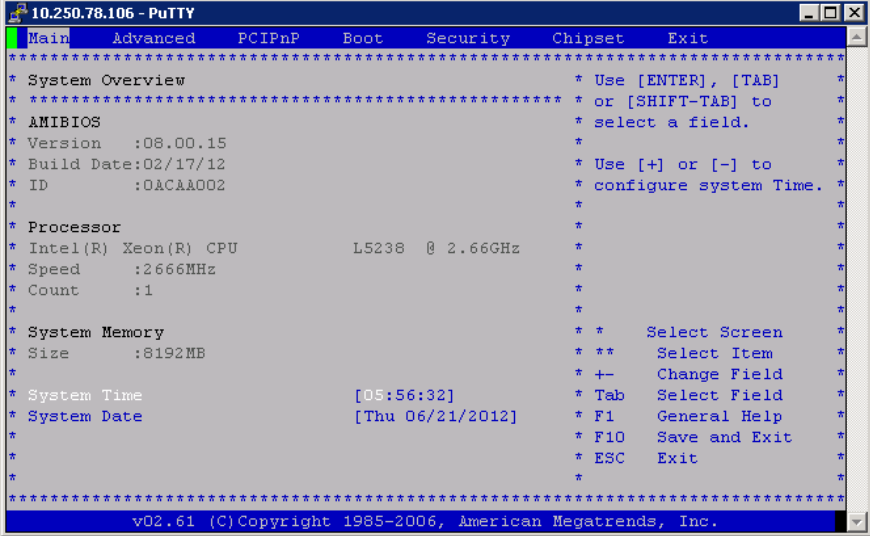
|   |  |   |
|---|--|---|
|   |  |   |
| <p>9. <input type="checkbox"/> <b>MPS X:</b><br/>Start the IPM process by entering the TPDlvm command at the boot prompt.</p> |  | <p>Start the IPM process by entering the TPDlvm command at the boot prompt.</p>  |



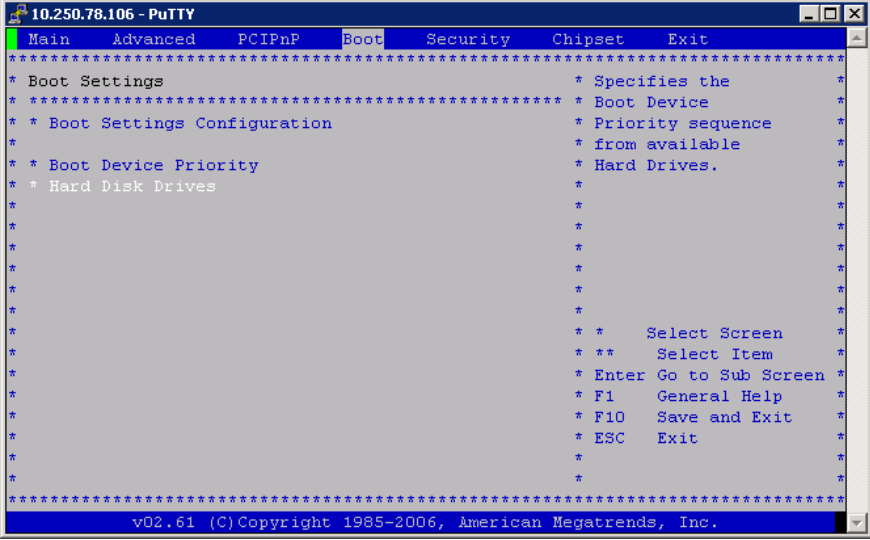
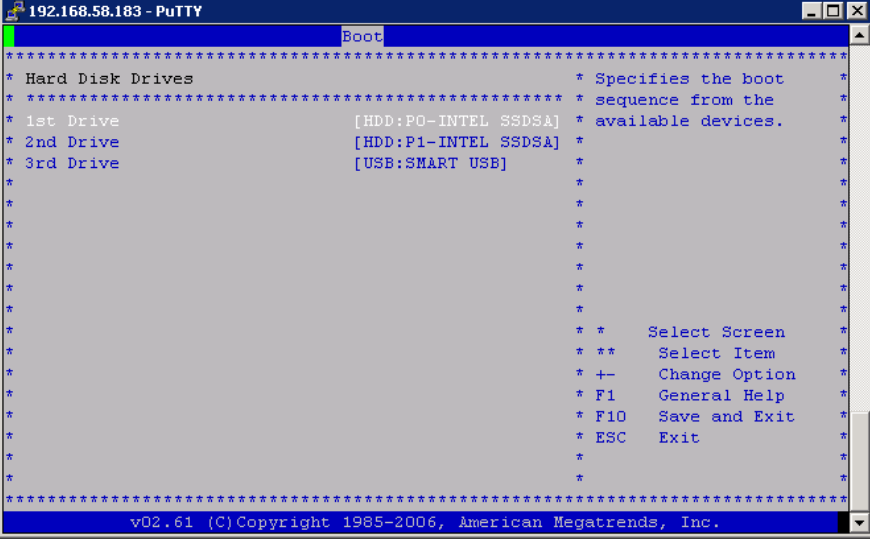
## Appendix A.13 IPM with TPD 8.6.0

|   |  |   |
|---|--|---|
|   | <p>Once the drive formatting and file system creation steps are complete, the screen at right will appear indicating that the package installation step is about to begin.</p>   |   |
| <p>12. <input type="checkbox"/> <b>MPS X:</b></p> | <p>After a few minutes, you will see a screen similar to that at right, showing the status of the package installation step. For each package, there will be a status bar at the top indicating how much of the package has been installed, with a cumulative status bar at the bottom indicating how many packages remain. In the middle, you will see text statistics indicating the total number of packages, the number of packages installed, the number remaining, and current and projected time estimates.</p> |  |

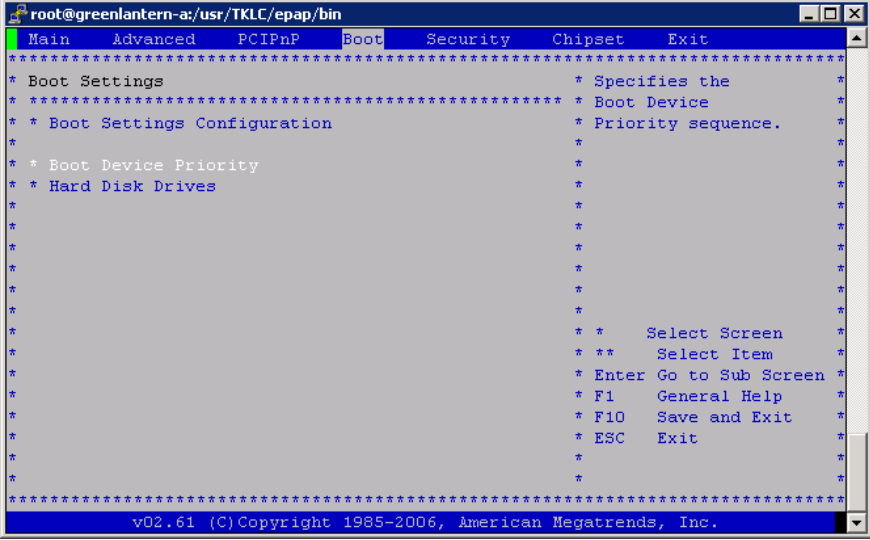
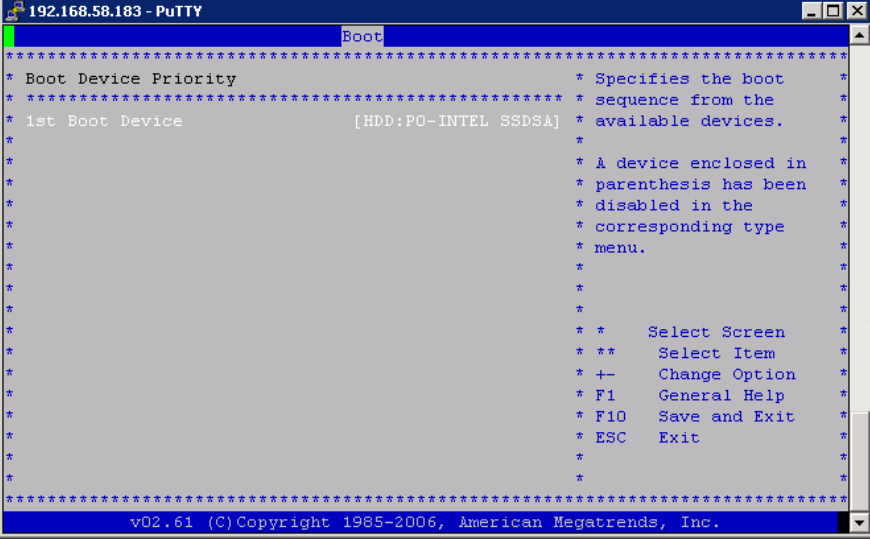
## Appendix A.13 IPM with TPD 8.6.0

|   |   |   |
|---|---|---|
| <p>13.<br/><input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Once all the packages have been successfully installed, the screen at right will appear letting you know the installation process is complete.</p> <p>On E5-APP-B server remove the installation media (USB) and press &lt;ENTER&gt; to reboot the system and continue with the next step.</p> | <pre> MPOINT: Media already mounted. DEV: /dev/sdc MPOINT: Media already mounted. DEV: /dev/sdc MPOINT: Media already mounted. DEV: /dev/sdc MPOINT: Pulling ISO Metadata file from: /run/install/repo/.isometadata Copying ISO metadata file to system DIR: /mnt/sysimage/var/TKLC/log/ipm Copying ISO metadata file to prodinfo DIR: /mnt/sysimage/usr/TKLC/plat/etc/prodinfo Changing default target to application.target Revoke root ssh access Installation complete  Use of this product is subject to the license agreement found at: /usr/share/oraclelinux-release/EULA  Installation complete. Press ENTER to quit: █ . </pre> |
| <p>14.<br/><input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Press 'del' key to enter the BIOS, set correct System Time in GMT and System Date.</p>   |   |
| <p>15.<br/><input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Select <i>Boot</i> → <i>Hard Disk Drives</i> option</p>  |   |

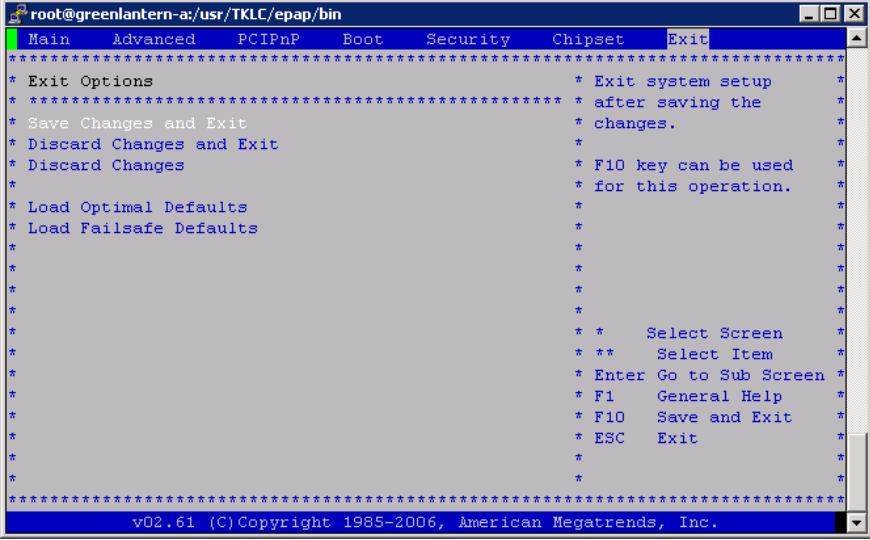
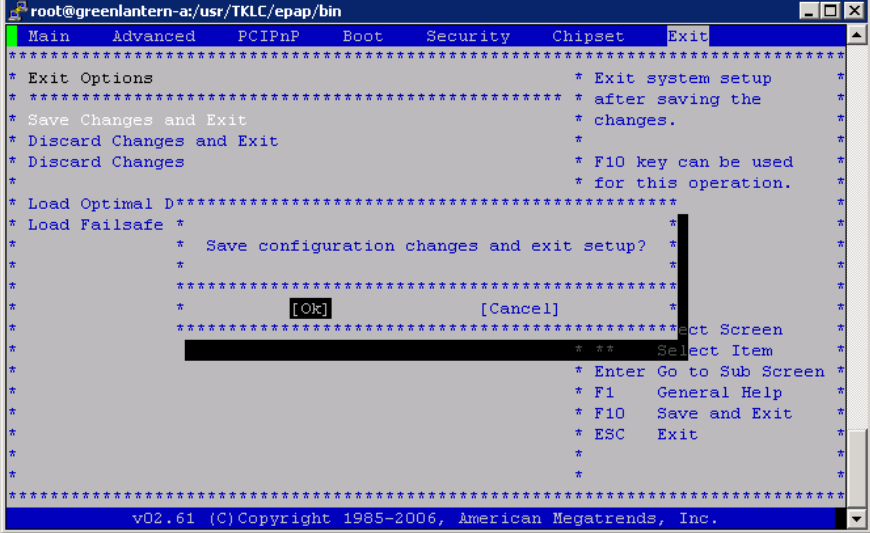
## Appendix A.13 IPM with TPD 8.6.0

|                                     |  |   |
|-------------------------------------|--|---|
|                                     |  |   |
| <p>16. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Press 'Enter' key and select HDD:P0 as the 1<sup>st</sup> Drive</p> |  |
| <p>17. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Press 'Esc' key and select Boot Device Priority</p>                 |   |

Appendix A.13 IPM with TPD 8.6.0

|                                     |   |   |
|-------------------------------------|---|---|
|                                     |   |   |
| <p>18. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Verify that the 1<sup>st</sup> Boot Device is set to HDD:P0.</p>                 |  |
| <p>19. <input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Press 'Esc' key and select <i>Exit</i> → <i>Save Changes and Exit</i> option</p> |   |

## Appendix A.13 IPM with TPD 8.6.0

|   |   |   |
|---|---|---|
|   |   |   |
| <p>20.<br/><input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Select [OK] to save the configuration changes. The server will reboot.</p> <p>Remove USB media from USB drive.</p> |  <p>When the message "Upstart Job ntdMgr: started", is displayed, press the Enter Key to get the Login prompt.</p> |
| <p>21.<br/><input type="checkbox"/></p> | <p><b>MPS X:</b> Log in to the server as the user "admusr"</p>  | <p><b>console login:</b> admusr<br/><b>password:</b> &lt;admusr_password&gt;</p>  |
| <p>22.<br/><input type="checkbox"/></p> | <p><b>MPS X:</b><br/>Verify that the platform revision is same as the TPD DVD or ISO used.</p>  | <p><b>\$ getPlatRev</b><br/><br/>8.6.0.0.0_110.x.0</p>  |

### Appendix A.13 IPM with TPD 8.6.0

|                                 |  |   |
|---------------------------------|--|---|
| 23.<br><input type="checkbox"/> | <b>MPS X:</b><br><br>Verify the system date. | <b>\$ date -u</b><br><br>Wed Mar 21 11:04:54 UTC 2018<br><br>Verify that the output time matches the time set in step 14. If mismatch is found, then Refer to <b>My Oracle Support</b> section for instructions on accessing My Oracle Support. |
| 24.<br><input type="checkbox"/> | <b>Procedure complete.</b>                   | Return to the procedure that you came here from.  |
| 25.<br><input type="checkbox"/> | <b>Note down the timestamp in log.</b>       | Run the following command:<br><br><b>\$ date</b>  |

### Procedure A.14 Standalone PDB Segmented Configuration

**Note: All the networks (Prov, GUI and OAM) should be in different subnets. The networks can be a mix of IPv4 and IPv6 IPs.**

#### Appendix A.14 Standalone PDB Segmented Configuration

|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure will configure the standalone PDB in segmented configuration.   |  |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.  |  |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u> .   |  |
|                                  | 1.<br><input type="checkbox"/>   | <b>MPS A:</b> Log on Server A.<br><br><b>[hostname] consolelogin: admusr</b><br><b>password: password</b>                  |
|                                  | 2.<br><input type="checkbox"/>   | <b>\$ sudo su - epapconfig</b><br><br>Warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904. |
| 3.<br><input type="checkbox"/>   | <b>MPS A:</b> A note of caution appears. Press Return to continue.<br><br>Caution: This is the first login of the text user interface.<br><br><b>Press return to continue...</b>             |  |
| 4.<br><input type="checkbox"/>   | <b>MPS A:</b> Upon pressing Return you can now abort or proceed with the initial configuration. To continue with the configuration, enter Y.<br><br>Are you sure you wish to continue? [N]:Y |  |

## Appendix A.14 Standalone PDB Segmented Configuration

|  |   |   |
|--|---|---|
| <p>5.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Enter the System Number and Network Configuration Type as “Segmented”.</p>                               | <p>Building the initial database on side A.<br/>Stopping local slave<br/>No preexisting EuiDB database was detected.<br/>Set EPAP System Number: <b>&lt;Enter the System Number here&gt;</b><br/>Enter the Network Configuration Type (1 for Single, 2 for Segmented): <b>2</b></p>   |
| <p>6.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 2, Configure Network Interfaces Menu.</p>        | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration  -----    2   Configure Network Interfaces Menu  -----    3   Set Time Zone  -----    4   Exchange Secure Shell Keys  -----    5   Change Password  -----    6   Platform Menu  -----    7   Configure NTP Server  -----    8   PDB Configuration Menu  -----    9   Security  -----    10   SNMP Configuration  -----    11   Configure Alarm Feed  -----    12   Configure Query Server  -----    13   Configure Query Server Alarm Feed  -----    14   Configure SNMP Agent Community  -----    15   DB Architecture Menu  -----    e   Exit \-----/ </pre> <p>Enter Choice: 2</p> |
| <p>7.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> The Configure Network Interfaces Menu is displayed. Select choice 1, Configure Provisioning Network.</p> | <pre> /-----Configure Network Interfaces Menu-----\ /-----\   1   Configure Provisioning Network  -----    2   Configure GUI Network  -----    3   Configure Operations and Maintenance Network  -----  </pre>  |

## Appendix A.14 Standalone PDB Segmented Configuration

|                                    |  |   |
|------------------------------------|--|---|
|                                    |  | <pre> 4   Configure Backup Provisioning Network 5   Configure Static NAT Addresses e   Exit </pre> <p>Enter Choice: 1</p>   |
|                                    | <p>Note: Enter choice “1” for IPv4 configuration. Otherwise, enter choice “2” for IPv6 configuration.</p>  | <pre> /-----Configure Provisioning Network Menu-----\   1   IPv4 Configuration     2   IPv6 Configuration     e   Exit   \-----\ </pre> <p>Enter Choice: █</p> <p>Example output Standalone PDB in IPv4 configuration:</p> <pre> EP&amp;P A provisioning network IP Address: 192.168.61.35 EP&amp;P provisioning network netmask: 255.255.255.0 EP&amp;P provisioning network default router: 192.168.61.250 </pre> <p>Select choice e to exit to the “Configure Network Interfaces” menu.</p>  |
| <p>8. <input type="checkbox"/></p> | <p><b>MPS A:</b> The Configure Network Interfaces Menu is displayed. Select choice 2, Configure GUI Network.</p> <p>Note: Enter choice “1” for IPv4 configuration. Otherwise, enter choice “2” for IPv6 configuration.</p> | <pre> /-----Configure Network Interfaces Menu-----\   1   Configure Provisioning Network     2   Configure GUI Network     3   Configure Operations and Maintenance Network     4   Configure Backup Provisioning Network     5   Configure Static NAT Addresses     e   Exit   \-----\ </pre> <p>Enter Choice: 2</p> <pre> /-----Configure GUI Network-----\   1   IPv4 Configuration     2   IPv6 Configuration     e   Exit   \-----\ </pre> <p>Enter Choice: 1</p> <p>Example output Standalone PDB in IPv4 configuration:</p> <pre> EP&amp;P A GUI network IP Address: 192.168.59.27 EP&amp;P GUI network netmask: 255.255.255.0 EP&amp;P GUI network route: 192.168.59.250 </pre> |

## Appendix A.14 Standalone PDB Segmented Configuration

|   |   |  |
|---|---|--|
|   |   | <p>Select choice e to exit to the “Configure Network Interfaces” menu.</p>   |
| <p>9.<br/><input type="checkbox"/></p>  | <p><b>MPS A:</b> The Configure Network Interfaces Menu is displayed. Select choice 3, Configure Operations and Maintenance Network.</p> <p>Note: Enter choice “1” for IPv4 configuration. Otherwise, enter choice “2” for IPv6 configuration.</p> | <pre> /-----Configure Network Interfaces Menu-----\ /-----\   1   Configure Provisioning Network  -----    2   Configure GUI Network  -----    3   Configure Operations and Maintenance Network  -----    4   Configure Backup Provisioning Network  -----    5   Configure Static NAT Addresses  -----    e   Exit \-----\  Enter Choice: 3  /-----Configure Operations and Maintenance Network-\ /-----\   1   IPv4 Configuration  -----    2   IPv6 Configuration  -----    e   Exit \-----\  Enter Choice: 1  EP&amp;P A Operations and Maintenance network IP Address: 192.168.60.26 EP&amp;P Operations and Maintenance network netmask: 255.255.255.0 EP&amp;P Operations and Maintenance network route: 192.168.60.250  Select choice e to exit to the “Configure Network Interfaces” menu. </pre> |
| <p>10.<br/><input type="checkbox"/></p> | <p><b>MPS A:</b> Select choice e to exit from the epapconfig menu.</p>  | <pre> /-----Configure Network Interfaces Menu-----\ /-----\   1   Configure Provisioning Network  -----    2   Configure GUI Network  -----    3   Configure Operations and Maintenance Network  -----    4   Configure Backup Provisioning Network  -----    5   Configure Static NAT Addresses  -----    e   Exit \-----\  Enter Choice: e </pre>  |

## Appendix A.14 Standalone PDB Segmented Configuration

|     |   |  |
|-----|---|--|
|     |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    10   SNMP Configuration    -----    11   Configure Alarm Feed    -----    12   Configure Query Server    -----    13   Configure Query Server Alarm Feed    -----    14   Configure SNMP Agent Community    -----    15   DB Architecture Menu    -----    e   Exit   \-----/ Enter Choice: 2 Enter Choice: e Note: If this menu is not exited properly, then the SSH login with root shall remain enabled. </pre> |
| 11. | <input type="checkbox"/> <b>MPS A:</b> Procedure is complete. | Procedure is complete.   |
| 12. | <input type="checkbox"/> Note down the timestamp in log.      | Run the following command:<br><b>\$ date</b>   |

## Procedure A.15 Password change for EPAP System Users

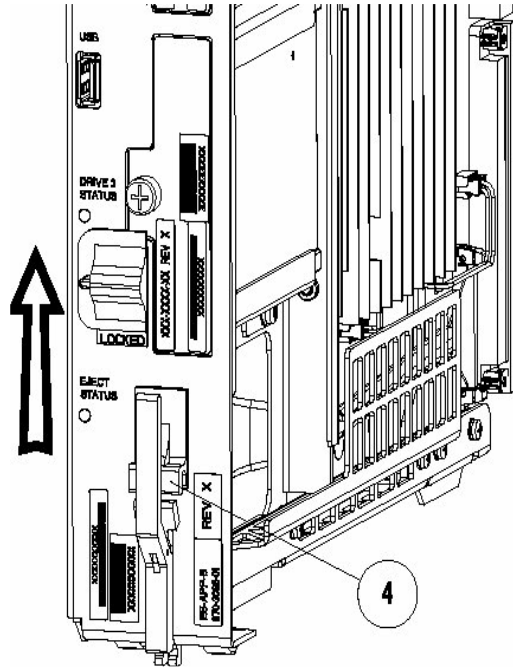
### Appendix A.15 Password change for EPAP System Users

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure will change the password for the EPAP System User(s).</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p> |   |
| 1.<br><input type="checkbox"/>   | <p><b>MPS A:</b> Log on Server A with the EPAP System User for which the password is to be changed.</p>   | <p><b>[hostname]:</b> &lt;EPAP System User&gt;<br/><b>password:</b> &lt;epapdev password&gt;</p>  |
| 2.<br><input type="checkbox"/>   | <p><b>MPS A:</b> Change Password for an EPAP system user</p>  | <p>Run the command to change to password of an existing EPAP user.</p> <p><b>\$ passwd</b><br/>Changing password for user &lt;EPAP System User&gt;.<br/>Changing password for &lt;EPAP System User&gt;.<br/>(current) UNIX password: &lt;Enter the current password here&gt;<br/>New password: &lt;Enter the new password here&gt;<br/>Retype new password: &lt;Retype the new password here&gt;<br/>passwd: all authentication tokens updated successfully.</p> <p>Note: The Linux “passwd” command used to change the password of Linux users, follows the Linux PAM rules. Refer to the Linux manual for the PAM rules.</p> <p><b># man pam_cracklib</b></p> |
| 3.<br><input type="checkbox"/>   | <p><b>MPS B:</b> Change Password</p>  | <p>Repeat steps 1 and 2 on MPS B also.<br/>Note: The new password on MPS A and B should be same.</p>  |
| 4.<br><input type="checkbox"/>   | <p><b>MPS A: Procedure Complete</b></p>   | <p>This procedure is complete.</p>  |
| 5.<br><input type="checkbox"/>   | <p>Note down the timestamp in log.</p>  | <p>Run the following command:</p> <p><b>\$ date</b></p>   |

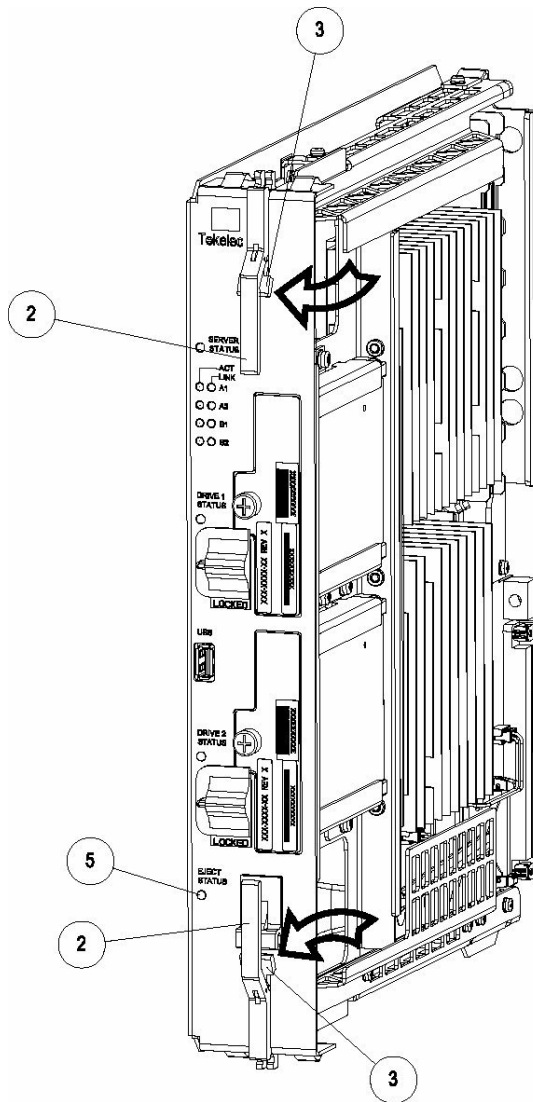
## Procedure A.16 E5-APP-B Halt/Shutdown

### Appendix A.16 E5-APP-B Halt/Shutdown

|                                  |   |  |
|----------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure will halt the E5-APP-B hardware.   |  |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |  |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND <b>ASK FOR <u>UPGRADE ASSISTANCE</u></b> .             |  |
| 1.<br><input type="checkbox"/>   | <b>E5APPB Card:</b> Slide the ejector switch  | On the APP-B card, slide the Ejector switch (4) up to the UNLOCKED position. Refer to Figure .<br><br>Caution: If the Ejector switch goes from locked to unlocked and the E5-APP-B card is in service, the card will halt. |
| 2.<br><input type="checkbox"/>   | <b>E5APPB Card:</b> Monitor the Eject Status LED  | WAIT for the E5-APP-B Eject Status LED to go from blinking red to a steady red.  |
| 3.<br><input type="checkbox"/>   | <b>E5APPB Card:</b> Lever Release   | Grasp the upper and lower card Inject/Eject (I/E) lever release (3) just underneath the I/E lever, and press it to meet the I/E lever. This is the mechanical interlock for the card. Refer to Figure .                    |
| 4.<br><input type="checkbox"/>   | <b>E5APPB Card:</b> Pull out the levers   | While holding the I/E interlock and lever, pull the levers (2) away from the shelf until they are parallel to the floor. Refer to Figure .   |
| 5.<br><input type="checkbox"/>   | <b>E5APPB Card:</b> Slide the ejector switch  | Remove the E5-APP-B card from the EAGLE shelf.   |
| 6.<br><input type="checkbox"/>   | <b>MPS A: Procedure Complete</b>  | This procedure is complete.  |
| 7.<br><input type="checkbox"/>   | Note down the timestamp in log.   | Run the following command:<br><br>\$ date  |



**Figure 7: Slide the Ejector Switch**



**Figure 8: Release Lever**

**Procedure A.17 Procedure to Configure EPAP switch ports and EAGLE SM cards to support 1G EPAP-to-Eagle RTDB download speed**

Note: This needs to be done in coordination with the EAGLE team.

**Appendix A.17 Procedure to Configure EPAP switch ports and EAGLE SM cards to support 1G EPAP-to-Eagle RTDB download speed**

|                                  |   |  |
|----------------------------------|---|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure will configure EPAP Switch ports and Eagle SM cards to support 1G EPAP-to-EAGLE download speed.</p> <p>Note: Estimated time of completion is 20 minutes.</p>                  |  |
| 1.<br><input type="checkbox"/>   | <p><b>E5-APP-B A/B:</b> Configure the SM ports on EPAP switch to 1000 Mbps.</p>   | <p>Follow 0 to Configure the SM ports on EPAP switch to 1000 Mbps</p>  |
| 2.<br><input type="checkbox"/>   | <p><b>EAGLE:</b> Configure Ethernet port on EAGLE SM cards that connects to EPAP to Auto-negotiate.</p>   | <p>Eagle Command to configure an Ethernet port on EAGLE SM cards that connects to EPAP:<br/>CHG-IP-LNK:LOC=&lt;SM card location&gt;;PORT=&lt;Port&gt;;IPADDR=&lt;IP Address&gt;;SUBMASK=&lt;Subnet Mask&gt;;MCAST=YES;AUTO=YES</p>   |
| 3.<br><input type="checkbox"/>   | <p><b>EAGLE:</b> Verify the auto negotiation status of the Ethernet ports on EAGLE SM cards that connects to EPAP. Make sure the ports are getting auto-negotiated to 1000Mbps/Full Duplex.</p> | <p>Eagle Command to verify auto negotiation status of an Ethernet port on EAGLE SM cards that connects to EPAP:<br/>PASS: LOC=&lt;SM card location&gt;;CMD="NETSTAT -I"<br/>Please go through the "Identifying the Ethernet port status on SM cards using "NETSTAT -I" display" section below.</p> <p>If ports on SM cards are getting auto-negotiated to 1000Mbps/Full Duplex correctly, then stop here. Otherwise continue with next step.</p> |
| 4.<br><input type="checkbox"/>   | <p><b>E5-APP-B A/B:</b> Configure the SM ports on EPAP switch to auto-negotiate.</p>  | <p>Follow 0 to Configure the SM ports on EPAP switch to 'auto'.</p>  |
| 5.<br><input type="checkbox"/>   | <p><b>EAGLE:</b> Verify the auto negotiation status of a Ethernet port on EAGLE SM cards that connects to EPAP. Make sure the ports are getting auto-negotiated to 1000Mbps/Full Duplex.</p>    | <p>Eagle Command to verify auto negotiation status of an Ethernet port on EAGLE SM cards that connects to EPAP:<br/>PASS: LOC=&lt;SM card location&gt;;CMD="NETSTAT -I"<br/>Please go through the "Identifying the Ethernet port status on SM cards using "NETSTAT -I" display" section below</p>  |
| 6.<br><input type="checkbox"/>   | <p>Note down the timestamp in log.</p>  | <p>Run the following command:<br/><br/><b>\$ date</b></p>  |

Identifying the Ethernet port status on SM cards using "NETSTAT -I" display:

SM8G-B card running SCCPHC:

gei (unit number 2) = ExAP Port A  
gei (unit number 3) = ExAP Port B

SM8G-B card running SCCPHC:

gei (unit number 2) = ExAP Port A  
gei (unit number 3) = ExAP Port B

> rept-stat-card:mode=full:loc=1307

```
eagle1 17-05-04 16:43:49 MST EAGLE 46.5.0.0.0-70.29.0
CARD VERSION TYPE GPL PST SST AST
1307 140-029-000 DSM SCCPHC IS-ANR MPS Unavl -----
ALARM STATUS = No Alarms.
BLMCAP GPL version = 140-029-000
IMT BUS A = Conn
IMT BUS B = Disc
CLOCK A = Fault
CLOCK B = Active
CLOCK I = Idle
MBD BIP STATUS = Valid
MOTHER BOARD ID = SMXG B
DBD STATUS = Valid
DBD TYPE = None
DBD MEMORY SIZE = 8192M
HW VERIFICATION CODE= ----
FPGA VERSION = 9
BIOS VERSION = 0ABSV01
PSOC VERSION = 0.1
CURRENT TEMPERATURE = 34C ( 94F)
PEAK TEMPERATURE: = 34C ( 94F) [17-05-04 15:49]
SCCP % OCCUP = 0%
SCCP SM DATA TYPE = DN
APPLICATION SERVICING
MFC MFC
SNM REQ STATUS = 24 hr: ---, 5 min: ---
INM REQ STATUS = 24 hr: ---, 5 min: ---
MTP3 REQ STATUS = 24 hr: ---, 5 min: ---
SFLOG REQ STATUS = 24 hr: ---, 5 min: ---
IPLNK STATUS
IPLNK IPADDR STATUS PST
A 192.168.120.21 DOWN OOS-MT
B 192.168.121.21 DOWN OOS-MT
DSM IP CONNECTION
PORT PST SST
A OOS-MT Unavail
B OOS-MT Unavail
```

Command Completed.

;

> pass:loc=1307:cmd="netstat -i"

```
eagle1 17-05-04 16:44:26 MST EAGLE 46.5.0.0.0-70.29.0
SDS Shell Output
```

```

-> tklc_ifShow
lo (unit number 0):
  Flags: (0x48049) UP LOOPBACK MULTICAST TRAILERS ARP RUNNING INET_UP
  Type: SOFTWARE_LOOPBACK
  inet: 127.0.0.1
  Netmask 0xff000000 Subnetmask 0xff000000
  Metric is 0
  Maximum Transfer Unit size is 1536
  0 packets received; 1 packets sent
  0 multicast packets received
  0 multicast packets sent
  0 input errors; 0 output errors
  0 collisions; 0 dropped
  0 output queue drops
DPLend (unit number 0):
  Flags: (0x20043) UP BROADCAST ARP RUNNING
  Type: ETHERNET_CSMACD
  Ethernet address is 00:00:00:00:00:00
  Metric is 0
  Maximum Transfer Unit size is 485
  0 octets received
  0 octets sent
  0 unicast packets received
  0 unicast packets sent
  0 non-unicast packets received
  0 non-unicast packets sent
  0 incoming packets discarded
  0 outgoing packets discarded
  0 incoming errors
  0 outgoing errors
  0 unknown protos
  0 collisions; 0 dropped
  0 output queue drops
gei (unit number 2):
  Flags: (0x78043) UP BROADCAST MULTICAST ARP RUNNING INET_UP
  PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
  Type: ETHERNET_CSMACD
  inet: 192.168.120.21
  Broadcast address: 192.168.120.255
  Netmask 0xffffffff Subnetmask 0xffffffff
  Ethernet address is 00:00:17:0e:b7:d2
  Metric is 0
  Maximum Transfer Unit size is 1500
  250214 octets received
  122200 octets sent
  0 unicast packets received
  0 unicast packets sent
  0 multicast packets received
  0 multicast packets sent
  2075 broadcast packets received
  940 broadcast packets sent
  0 incoming packets discarded
  0 outgoing packets discarded
  0 incoming errors
  0 outgoing errors
  0 unknown protos
  0 collisions; 0 dropped
  0 output queue drops
gei (unit number 3):
  Flags: (0x78043) UP BROADCAST MULTICAST ARP RUNNING INET_UP

```

```

PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
Type: ETHERNET_CSMACD
inet: 192.168.121.21
Broadcast address: 192.168.121.255
Netmask 0xffffffff Subnetmask 0xffffffff
Ethernet address is 00:00:17:0e:b7:d3
Metric is 0
Maximum Transfer Unit size is 1500
248920 octets received
121290 octets sent
0 unicast packets received
0 unicast packets sent
0 multicast packets received
0 multicast packets sent
2062 broadcast packets received
933 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
value = 26 = 0x1a

```

;

```
eagle1 17-05-04 16:44:36 MST EAGLE 46.5.0.0.0-70.29.0
```

```
NETSTAT command complete
```

;

SM8G-B card running SCCP64:

```

gei (unit number 4) = ExAP Port A
gei (unit number 5) = ExAP Port B

```

```
> rept-stat-card:mode=full:loc=1307
```

```

eagle1 17-05-04 17:00:01 MST EAGLE 46.5.0.0.0-70.29.0
CARD   VERSION      TYPE      GPL      PST      SST      AST
1307   140-029-000   DSM      SCCP64   IS-ANR   MPS Unavl  -----
ALARM STATUS           = No Alarms.
BLDC64  GPL version = 140-029-000
IMT BUS A              = Conn
IMT BUS B              = Disc
CLOCK A                = Fault
CLOCK B                = Active
CLOCK I                = Idle
MBD BIP STATUS         = Valid
MOTHER BOARD ID       = SMXG B
DBD STATUS             = Valid
DBD TYPE               = None
DBD MEMORY SIZE        = 8192M
HW VERIFICATION CODE= -----
FPGA VERSION           = 9
BIOS VERSION           = 0ABSV01

```

```
PSOC VERSION          = 0.1
CURRENT TEMPERATURE  = 34C ( 94F)
PEAK TEMPERATURE:    = 34C ( 94F)    [17-05-04 15:49]
SCCP % OCCUP         = 0%
SCCP SM DATA TYPE   = DN
APPLICATION SERVICING
```

```

                                MFC          MFC
SNM    REQ STATUS = 24 hr: ---, 5 min: ---
INM    REQ STATUS = 24 hr: ---, 5 min: ---
MTP3   REQ STATUS = 24 hr: ---, 5 min: ---
SFLOG  REQ STATUS = 24 hr: ---, 5 min: ---
IPLNK STATUS
IPLNK  IPADDR          STATUS          PST
A      192.168.120.21  DOWN           OOS-MT
B      192.168.121.21  DOWN           OOS-MT
DSM IP CONNECTION
PORT   PST            SST
A      OOS-MT         Unavail
B      OOS-MT         Unavail
```

Command Completed.

;

```
> pass:loc=1307:cmd="netstat -i"
```

```
eagle1 17-05-04 17:00:14 MST EAGLE 46.5.0.0-70.29.0
SDS Shell Output
```

```
shellLib: unknown LED mode vi.
-> tklc_ifShow
```

```
lo0 Link type:Local loopback Queue:none
inet 127.0.0.1 mask 255.255.255.255
inet6 unicast fe80::1%lo0 prefixlen 64 automatic
inet6 unicast ::1 prefixlen 128
UP RUNNING LOOPBACK MULTICAST NOARP ALLMULTI
MTU:1500 metric:1 VR:0 ifindex:1
RX packets:761 mcast:3 errors:0 dropped:0
TX packets:761 mcast:3 errors:0
collisions:0 unsupported proto:0
RX bytes:85k TX bytes:85k
```

```
gei4 Link type:Ethernet HWaddr 00:00:17:0e:b7:d2 Queue:none
capabilities: TXCSUM TX6CSUM
inet 192.168.120.21 mask 255.255.255.0 broadcast 192.168.120.255
inet6 unicast fe80::200:17ff:fe0e:b7d2%gei4 prefixlen 64 automatic
UP RUNNING SIMPLEX BROADCAST MULTICAST
MTU:1500 metric:1 VR:0 ifindex:2
RX packets:791 mcast:0 errors:0 dropped:0
TX packets:386 mcast:6 errors:0
collisions:0 unsupported proto:0
RX bytes:92k TX bytes:48k
```

```
gei5 Link type:Ethernet HWaddr 00:00:17:0e:b7:d3 Queue:none
capabilities: TXCSUM TX6CSUM
inet 192.168.121.21 mask 255.255.255.0 broadcast 192.168.121.255
inet6 unicast fe80::200:17ff:fe0e:b7d3%gei5 prefixlen 64 automatic
UP RUNNING SIMPLEX BROADCAST MULTICAST
MTU:1500 metric:1 VR:0 ifindex:3
RX packets:783 mcast:0 errors:0 dropped:0
```

```

TX packets:386 mcast:6 errors:0
collisions:0 unsupported proto:0
RX bytes:91k TX bytes:48k

gei (unit number 4):
  PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
gei (unit number 5):
  PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
value = 1 = 0x1

;

SM8G-B card running ENUMHC/DEIRHC/SIPHC:

gei (unit number 2) = ExAP Port
gei (unit number 3) = Signaling Port

> rept-stat-card:mode=full:loc=1317

eagle1 17-05-04 15:46:06 MST EAGLE 46.5.0.0.0-70.29.0
CARD VERSION TYPE GPL PST SST AST
1317 140-029-000 DSM ENUMHC IS-ANR MPS Unavl -----
ALARM STATUS = No Alarms.
BLMCAP GPL version = 140-029-000
IMT BUS A = Conn
IMT BUS B = Disc
CLOCK A = Fault
CLOCK B = Active
CLOCK I = Idle
MBD BIP STATUS = Valid
MOTHER BOARD ID = SMXG B
DBD STATUS = Valid
DBD TYPE = None
DBD MEMORY SIZE = 8192M
HW VERIFICATION CODE= ----
FPGA VERSION = 9
BIOS VERSION = 0ABSV01
PSOC VERSION = 0.1
CURRENT TEMPERATURE = 34C ( 94F)
PEAK TEMPERATURE: = 34C ( 94F) [17-05-02 09:31]
ENUM SM DATA TYPE = DN
IPLNK STATUS
IPLNK IPADDR STATUS PST
A 192.168.120.13 UP IS-NR
B 10.75.49.21 UP IS-NR
C ----- ---- ----
D ----- ---- ----
DSM IP CONNECTION
PORT PST SST
A OOS-MT Unavail
D OOS-MA Ueq
ENUM CONNECTION STATUS
CNAME PROT STATUS

Command Completed.

;

> pass:loc=1317:cmd="netstat -i"

Command Accepted - Processing

```

```
eagle1 17-05-04 15:46:46 MST EAGLE 46.5.0.0.0-70.29.0
pass:loc=1317:cmd="netstat -i"
Command entered at terminal #13.
```

;

```
eagle1 17-05-04 15:46:46 MST EAGLE 46.5.0.0.0-70.29.0
PASS: Command sent to card
```

;

```
eagle1 17-05-04 15:46:46 MST EAGLE 46.5.0.0.0-70.29.0
SDS Shell Output
```

```
-> tklc_ifShow
lo (unit number 0):
  Flags: (0x48049) UP LOOPBACK MULTICAST TRAILERS ARP RUNNING INET_UP
  Type: SOFTWARE_LOOPBACK
  inet: 127.0.0.1
  Netmask 0xff000000 Subnetmask 0xff000000
  Metric is 0
  Maximum Transfer Unit size is 1536
  0 packets received; 1 packets sent
  0 multicast packets received
  0 multicast packets sent
  0 input errors; 0 output errors
  0 collisions; 0 dropped
  0 output queue drops
DPLend (unit number 0):
  Flags: (0x20043) UP BROADCAST ARP RUNNING
  Type: ETHERNET_CSMACD
  Ethernet address is 00:00:00:00:00:00
  Metric is 0
  Maximum Transfer Unit size is 485
  0 octets received
  0 octets sent
  0 unicast packets received
  0 unicast packets sent
  0 non-unicast packets received
  0 non-unicast packets sent
  0 incoming packets discarded
  0 outgoing packets discarded
  0 incoming errors
  0 outgoing errors
  0 unknown protos
  0 collisions; 0 dropped
  0 output queue drops
gei (unit number 2):
  Flags: (0x78043) UP BROADCAST MULTICAST ARP RUNNING INET_UP
  PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
  Type: ETHERNET_CSMACD
  inet: 192.168.120.13
  Broadcast address: 192.168.120.255
  Netmask 0xffffffff Subnetmask 0xffffffff
  Ethernet address is 00:00:17:0e:b7:d2
  Metric is 0
  Maximum Transfer Unit size is 1500
  16128 octets received
  102048 octets sent
  0 unicast packets received
  0 unicast packets sent
  0 multicast packets received
  0 multicast packets sent
```

```

252 broadcast packets received
786 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
gei (unit number 3):
Flags: (0x70043) UP BROADCAST ARP RUNNING INET_UP
PHY Flags: (0x12012) AUTONEG 1000MB FDX DIX
Type: ETHERNET_CSMACD
inet: 10.75.49.21
Broadcast address: 10.75.49.255
Netmask 0xff000000 Subnetmask 0xffffffff00
Ethernet address is 00:00:17:0e:b7:d3
Metric is 0
Maximum Transfer Unit size is 1500
0 octets received
128 octets sent
0 unicast packets received
0 unicast packets sent
0 multicast packets received
0 multicast packets sent
0 broadcast packets received
2 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
value = 26 = 0x1a

```

```
;
```

```
eagle1 17-05-04 15:46:56 MST EAGLE 46.5.0.0.0-70.29.0
```

```
;
```

```
eagle1 17-05-04 15:46:56 MST EAGLE 46.5.0.0.0-70.29.0
```

```
NETSTAT command complete
```

```
;
```

```
SM8G-B card running ENUM64/DEIR64/SIP64:
```

```
gei (unit number 4) = ExAP Port
gei (unit number 5) = Signaling Port
```

```
> rept-stat-card:mode=full:loc=1317
```

```

eagle1 17-05-04 15:23:31 MST EAGLE 46.5.0.0.0-70.29.0
CARD   VERSION      TYPE      GPL      PST      SST      AST
1317   140-029-000    DSM      ENUM64   IS-ANR   MPS Unavl  -----
ALARM STATUS      = ** 0080 Shelf FAN bit is OFF

```

```

BLDC64 GPL version = 140-029-000
IMT BUS A          = Conn
IMT BUS B          = Disc
CLOCK A           = Fault
CLOCK B           = Active
CLOCK I           = Idle
MBD BIP STATUS    = Valid
MOTHER BOARD ID   = SMXG B
DBD STATUS        = Valid
DBD TYPE          = None
DBD MEMORY SIZE   = 8192M
HW VERIFICATION CODE= ----
FPGA VERSION      = 9
BIOS VERSION      = 0ABSV01
PSOC VERSION      = 0.1
CURRENT TEMPERATURE = 34C ( 94F)
PEAK TEMPERATURE: = 34C ( 94F)      [17-05-02 09:31]
ENUM SM DATA TYPE = DN
IPLNK STATUS
  IPLNK  IPADDR          STATUS    PST
  A      192.168.120.13  UP      IS-NR
  B      10.75.49.21    UP      IS-NR
  C      -----        ----     ----
  D      -----        ----     ----
DSM IP CONNECTION
  PORT  PST             SST
  A     OOS-MT          Unavail
  D     OOS-MA          Ueq
ENUM CONNECTION STATUS
  CNAME          PROT      STATUS

```

Command Completed.

;

> pass:loc=1317:cmd="netstat -i"

```

eagle1 17-05-04 15:23:59 MST EAGLE 46.5.0.0.0-70.29.0
SDS Shell Output

```

shellLib: unknown LED mode vi.

-> tklc\_ifShow

```

lo0 Link type:Local loopback Queue:none
  inet 127.0.0.1 mask 255.255.255.255
  inet6 unicast fe80::1%lo0 prefixlen 64 automatic
  inet6 unicast ::1 prefixlen 128
  UP RUNNING LOOPBACK MULTICAST NOARP ALLMULTI
  MTU:1500 metric:1 VR:0 ifindex:1
  RX packets:885990 mcast:3 errors:0 dropped:0
  TX packets:885990 mcast:3 errors:0
  collisions:0 unsupported proto:0
  RX bytes:99M TX bytes:99M

```

```

gei4      Link type:Ethernet HWaddr 00:00:17:0e:b7:d2 Queue:none
capabilities: TXCSUM TX6CSUM
  inet 192.168.120.13 mask 255.255.255.0 broadcast 192.168.120.255
  inet6 unicast fe80::200:17ff:fe0e:b7d2%gei4 prefixlen 64 automatic
  UP RUNNING SIMPLEX BROADCAST MULTICAST
  MTU:1500 metric:1 VR:0 ifindex:2
  RX packets:35807 mcast:0 errors:0 dropped:0
  TX packets:877952 mcast:12 errors:0

```

collisions:0 unsupported proto:0  
RX bytes:2148k TX bytes:110M

gei5 Link type:Ethernet HWaddr 00:00:17:0e:b7:d3 Queue:none  
capabilities: TXCSUM TX6CSUM  
inet 10.75.49.21 mask 255.255.255.0 broadcast 10.75.49.255  
inet6 unicast fe80::200:17ff:fe0e:b7d3%gei5 prefixlen 64 automatic  
UP RUNNING SIMPLEX BROADCAST MULTICAST  
MTU:1500 metric:1 VR:0 ifindex:3  
RX packets:526 mcast:0 errors:0 dropped:0  
TX packets:7 mcast:6 errors:0  
collisions:0 unsupported proto:0  
RX bytes:57k TX bytes:510

gei (unit number 4):  
PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX  
gei (unit number 5):  
PHY Flags: (0x12012) AUTONEG 1000MB FDX DIX  
value = 1 = 0x1

;

eagle1 17-05-04 15:24:09 MST EAGLE 46.5.0.0.0-70.29.0

;

eagle1 17-05-04 15:24:09 MST EAGLE 46.5.0.0.0-70.29.0

NETSTAT command complete

;

SLIC card running SCCPHC:

gei (unit number 2) is ExAP Port A  
gei (unit number 0) is ExAP Port B

> REPT-STAT-CARD:MODE=FULL:LOC=1307

```
eagle1 17-05-04 15:10:21 MST EAGLE 46.5.0.0.0-70.29.0
CARD VERSION TYPE GPL PST SST AST
1307 140-029-000 SLIC SCCPHC IS-ANR Standby 98%
ALARM STATUS = ** 0080 Shelf FAN bit is OFF
BLSLC32 GPL version = 140-029-000
IMT BUS A = Conn
IMT BUS B = Disc
CLOCK A = Fault
CLOCK B = Active
CLOCK I = Idle
MBD BIP STATUS = Valid
MOTHER BOARD ID = SLIC
DBD STATUS = Valid
DBD TYPE = None
DBD MEMORY SIZE = 16384M
HW VERIFICATION CODE= ----
FPGA VERSION = 9400036
BIOS VERSION = 0ACFP00
PSOC VERSION = 1.0
CURRENT TEMPERATURE = 40C (104F)
PEAK TEMPERATURE: = 40C (104F) [17-05-04 15:05]
```

```

SCCP % OCCUP          = 0%
SCCP SM DATA TYPE   = DN
APPLICATION SERVICING

          SNM      REQ STATUS = 24 hr: ---, 5 min: ---
          INM      REQ STATUS = 24 hr: ---, 5 min: ---
          MTP3     REQ STATUS = 24 hr: ---, 5 min: ---
          SFLOG    REQ STATUS = 24 hr: ---, 5 min: ---
IPLNK STATUS
IPLNK  IPADDR          STATUS      PST
A      192.168.120.21  DOWN      OOS-MT
B      192.168.121.21  DOWN      OOS-MT
DSM IP CONNECTION
PORT   PST             SST
A      OOS-MT          Unavail
B      OOS-MT          Unavail

```

Command Completed.

;

> PASS:LOC=1307:CMD="NETSTAT -I"

eagle1 17-05-04 15:10:27 MST EAGLE 46.5.0.0.0-70.29.0  
SDS Shell Output

```

-> tklc_ifShow
lo (unit number 0):
  Flags: (0x48049) UP LOOPBACK MULTICAST TRAILERS ARP RUNNING INET_UP
  Type: SOFTWARE_LOOPBACK
  inet: 127.0.0.1
  Netmask 0xff000000 Subnetmask 0xff000000
  Metric is 0
  Maximum Transfer Unit size is 1536
  0 packets received; 1 packets sent
  0 multicast packets received
  0 multicast packets sent
  0 input errors; 0 output errors
  0 collisions; 0 dropped
  0 output queue drops
DPLend (unit number 0):
  Flags: (0x20043) UP BROADCAST ARP RUNNING
  Type: ETHERNET_CSMACD
  Ethernet address is 00:00:00:00:00:00
  Metric is 0
  Maximum Transfer Unit size is 485
  0 octets received
  0 octets sent
  0 unicast packets received
  0 unicast packets sent
  0 non-unicast packets received
  0 non-unicast packets sent
  0 incoming packets discarded
  0 outgoing packets discarded
  0 incoming errors
  0 outgoing errors
  0 unknown protos
  0 collisions; 0 dropped
  0 output queue drops
gei (unit number 2):
  Flags: (0x78043) UP BROADCAST MULTICAST ARP RUNNING INET_UP

```

```

PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
Type: ETHERNET_CSMACD
inet: 192.168.120.21
Broadcast address: 192.168.120.255
Netmask 0xffffffff Subnetmask 0xffffffff
Ethernet address is 00:10:e0:bb:26:d2
Metric is 0
Maximum Transfer Unit size is 1500
0 octets received
2014 octets sent
0 unicast packets received
0 unicast packets sent
0 multicast packets received
0 multicast packets sent
0 broadcast packets received
16 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
gei (unit number 0):
Flags: (0x78043) UP BROADCAST MULTICAST ARP RUNNING INET_UP
PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
Type: ETHERNET_CSMACD
inet: 192.168.121.21
Broadcast address: 192.168.121.255
Netmask 0xffffffff Subnetmask 0xffffffff
Ethernet address is 00:10:e0:bb:26:d0
Metric is 0
Maximum Transfer Unit size is 1500
0 octets received
1884 octets sent
0 unicast packets received
0 unicast packets sent
0 multicast packets received
0 multicast packets sent
0 broadcast packets received
15 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
value = 26 = 0x1a
;

eagle1 17-05-04 15:10:37 MST EAGLE 46.5.0.0.0-70.29.0

NETSTAT command complete
;

SLIC card running SCCP64:

```

gei (unit number 0) = ExAP Port A  
gei (unit number 2) = ExAP Port B

> REPT-STAT-CARD:MODE=FULL:LOC=1307

```
eagle1 17-05-04 14:55:03 MST EAGLE 46.5.0.0.0-70.29.0
CARD VERSION TYPE GPL PST SST AST
1307 140-029-000 SLIC SCCP64 IS-ANR MPS Unavl -----
ALARM STATUS = ** 0080 Shelf FAN bit is OFF
BLSLC64 GPL version = 140-029-000
IMT BUS A = Conn
IMT BUS B = Disc
CLOCK A = Fault
CLOCK B = Active
CLOCK I = Idle
MBD BIP STATUS = Valid
MOTHER BOARD ID = SLIC
DBD STATUS = Valid
DBD TYPE = None
DBD MEMORY SIZE = 16384M
HW VERIFICATION CODE= ----
FPGA VERSION = 9400036
BIOS VERSION = 0ACFP00
PSOC VERSION = 1.0
CURRENT TEMPERATURE = 36C ( 97F)
PEAK TEMPERATURE: = 38C (101F) [17-05-04 14:47]
SCCP % OCCUP = 0%
SCCP SM DATA TYPE = DN
APPLICATION SERVICING
SNM REQ STATUS = 24 hr: ---, 5 min: --- MFC MFC
INM REQ STATUS = 24 hr: ---, 5 min: ---
MTP3 REQ STATUS = 24 hr: ---, 5 min: ---
SFLOG REQ STATUS = 24 hr: ---, 5 min: ---
IPLNK STATUS
IPLNK IPADDR STATUS PST
A 192.168.120.21 DOWN OOS-MT
B 192.168.121.21 DOWN OOS-MT
DSM IP CONNECTION
PORT PST SST
A OOS-MT Unavail
B OOS-MT Unavail
```

Command Completed.

;

> PASS:LOC=1307:CMD="NETSTAT -I"

Command Accepted - Processing

```
eagle1 17-05-04 14:56:03 MST EAGLE 46.5.0.0.0-70.29.0
PASS:LOC=1307:CMD="NETSTAT -I"
Command entered at terminal #11.
```

;

```
eagle1 17-05-04 14:56:03 MST EAGLE 46.5.0.0.0-70.29.0
PASS: Command sent to card
```

;

```
eagle1 17-05-04 14:56:03 MST EAGLE 46.5.0.0.0-70.29.0
SDS Shell Output
```

```

shellLib: unknown LED mode vi.
-> tklc_ifShow
lo0 Link type:Local loopback Queue:none
  inet 127.0.0.1 mask 255.255.255.255
  inet6 unicast fe80::1%lo0 prefixlen 64 automatic
  inet6 unicast ::1 prefixlen 128
  UP RUNNING LOOPBACK MULTICAST NOARP ALLMULTI
  MTU:1500 metric:1 VR:0 ifindex:1
  RX packets:2213 mcast:3 errors:0 dropped:0
  TX packets:2213 mcast:3 errors:0
  collisions:0 unsupported proto:0
  RX bytes:247k TX bytes:247k

gei0      Link type:Ethernet HWaddr 00:10:e0:bb:26:d0 Queue:none
capabilities: TXCSUM TX6CSUM VLAN_MTU VLAN_TXHWTAG VLAN_RXHWTAG
  inet 192.168.120.21 mask 255.255.255.0 broadcast 192.168.120.255
  inet6 unicast fe80::210:e0ff:febb:26d0%gei0 prefixlen 64 automatic
  UP RUNNING SIMPLEX BROADCAST MULTICAST
  MTU:1500 metric:1 VR:0 ifindex:2
  RX packets:695 mcast:0 errors:0 dropped:0
  TX packets:634 mcast:12 errors:0
  collisions:0 unsupported proto:0
  RX bytes:74k TX bytes:79k

gei2      Link type:Ethernet HWaddr 00:10:e0:bb:26:d2 Queue:none
capabilities: TXCSUM TX6CSUM VLAN_MTU VLAN_TXHWTAG VLAN_RXHWTAG
  inet 192.168.121.21 mask 255.255.255.0 broadcast 192.168.121.255
  inet6 unicast fe80::210:e0ff:febb:26d2%gei2 prefixlen 64 automatic
  UP RUNNING SIMPLEX BROADCAST MULTICAST
  MTU:1500 metric:1 VR:0 ifindex:3
  RX packets:702 mcast:0 errors:0 dropped:0
  TX packets:639 mcast:6 errors:0
  collisions:0 unsupported proto:0
  RX bytes:75k TX bytes:80k

gei (unit number 0):
  PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
gei (unit number 2):
  PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
value = 1 = 0x1

;
eagle1 17-05-04 14:56:13 MST EAGLE 46.5.0.0.0-70.29.0

NETSTAT command complete

;

SLIC card running ENUMHC/DEIRHC/SIPHC:
gei (unit number 2) = ExAP Port A
gei (unit number 0) = Signaling Port #1
gei (unit number 3) = Signaling Port #2
gei (unit number 1) = ExAP Port B

> rept-stat-card:mode=full:loc=1317

eagle1 17-05-04 17:34:35 MST EAGLE 46.5.0.0.0-70.29.0

```

```

CARD   VERSION   TYPE      GPL          PST          SST          AST
1317   140-029-000  SLIC      ENUMHC       IS-ANR       MPS Unavl    -----
ALARM STATUS           = No Alarms.
BLSLC32 GPL version   = 140-029-000
IMT BUS A             = Conn
IMT BUS B             = Disc
CLOCK A               = Fault
CLOCK B               = Active
CLOCK I               = Idle
MBD BIP STATUS        = Valid
MOTHER BOARD ID      = SLIC
DBD STATUS            = Valid
DBD TYPE              = None
DBD MEMORY SIZE       = 16384M
HW VERIFICATION CODE= ----
FPGA VERSION          = 9400036
BIOS VERSION          = 0ACFP00
PSOC VERSION          = 1.0
CURRENT TEMPERATURE  = 43C (110F)
PEAK TEMPERATURE:    = 43C (110F)    [17-05-04 17:27]
ENUM SM DATA TYPE    = DN
IPLNK STATUS
  IPLNK  IPADDR          STATUS      PST
  A      192.168.120.13  UP          IS-NR
  B      10.75.49.21     DOWN       OOS-MT
  C      10.75.50.21     UP          IS-NR
  D      192.168.121.13  UP          IS-NR
DSM IP CONNECTION
  PORT   PST            SST
  A      OOS-MT         Unavail
  D      OOS-MT         Unavail

```

Command Completed.

;

```
> pass:loc=1317:cmd="netstat -i"
```

Command Accepted - Processing

```
eagle1 17-05-04 17:34:52 MST EAGLE 46.5.0.0.0-70.29.0
pass:loc=1317:cmd="netstat -i"
Command entered at terminal #13.
```

;

```
eagle1 17-05-04 17:34:52 MST EAGLE 46.5.0.0.0-70.29.0
PASS: Command sent to card
```

;

```
eagle1 17-05-04 17:34:52 MST EAGLE 46.5.0.0.0-70.29.0
SDS Shell Output
```

```
-> tklc_ifShow
lo (unit number 0):
  Flags: (0x48049) UP LOOPBACK MULTICAST TRAILERS ARP RUNNING INET_UP
  Type: SOFTWARE_LOOPBACK
  inet: 127.0.0.1
  Netmask 0xff000000 Subnetmask 0xff000000
  Metric is 0
  Maximum Transfer Unit size is 1536
  0 packets received; 1 packets sent
```

```

0 multicast packets received
0 multicast packets sent
0 input errors; 0 output errors
0 collisions; 0 dropped
0 output queue drops
DPLend (unit number 0):
Flags: (0x20043) UP BROADCAST ARP RUNNING
Type: ETHERNET_CSMACD
Ethernet address is 00:00:00:00:00:00
Metric is 0
Maximum Transfer Unit size is 485
0 octets received
0 octets sent
0 unicast packets received
0 unicast packets sent
0 non-unicast packets received
0 non-unicast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
gei (unit number 2):
Flags: (0x78043) UP BROADCAST MULTICAST ARP RUNNING INET_UP
PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
Type: ETHERNET_CSMACD
inet: 192.168.120.13
Broadcast address: 192.168.120.255
Netmask 0xffffffff Subnetmask 0xffffffff
Ethernet address is 00:10:e0:bb:26:d2
Metric is 0
Maximum Transfer Unit size is 1500
13736 octets received
16118 octets sent
0 unicast packets received
0 unicast packets sent
0 multicast packets received
0 multicast packets sent
128 broadcast packets received
125 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
gei (unit number 0):
Flags: (0x70043) UP BROADCAST ARP RUNNING INET_UP
PHY Flags: (0x2012) DIX
Type: ETHERNET_CSMACD
inet: 10.75.49.21
Broadcast address: 10.75.49.255
Netmask 0xff000000 Subnetmask 0xffffffff
Ethernet address is 00:10:e0:bb:26:d0
Metric is 0
Maximum Transfer Unit size is 1500
0 octets received
0 octets sent

```

```

0 unicast packets received
0 unicast packets sent
0 multicast packets received
0 multicast packets sent
0 broadcast packets received
0 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
gei (unit number 3):
Flags: (0x70043) UP BROADCAST ARP RUNNING INET_UP
PHY Flags: (0x12012) 100MB FDX DIX
Type: ETHERNET_CSMACD
inet: 10.75.50.21
Broadcast address: 10.75.50.255
Netmask 0xff000000 Subnetmask 0xffffffff00
Ethernet address is 00:10:e0:bb:26:d3
Metric is 0
Maximum Transfer Unit size is 1500
25708 octets received
128 octets sent
0 unicast packets received
0 unicast packets sent
0 multicast packets received
0 multicast packets sent
214 broadcast packets received
2 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos
0 collisions; 0 dropped
0 output queue drops
gei (unit number 1):
Flags: (0x78043) UP BROADCAST MULTICAST ARP RUNNING INET_UP
PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
Type: ETHERNET_CSMACD
inet: 192.168.121.13
Broadcast address: 192.168.121.255
Netmask 0xffffffff00 Subnetmask 0xffffffff00
Ethernet address is 00:10:e0:bb:26:d1
Metric is 0
Maximum Transfer Unit size is 1500
13544 octets received
16118 octets sent
0 unicast packets received
0 unicast packets sent
0 multicast packets received
0 multicast packets sent
125 broadcast packets received
125 broadcast packets sent
0 incoming packets discarded
0 outgoing packets discarded
0 incoming errors
0 outgoing errors
0 unknown protos

```

```

        0 collisions; 0 dropped
        0 output queue drops
value = 26 = 0x1a
;
eagle1 17-05-04 17:35:02 MST EAGLE 46.5.0.0.0-70.29.0
;
eagle1 17-05-04 17:35:02 MST EAGLE 46.5.0.0.0-70.29.0
NETSTAT command complete
;
SLIC card running DEIR64/ENUM64/SIP64:
gei (unit number 0) = ExAP Port A
gei (unit number 2) = Signaling Port #1
gei (unit number 1) = Signaling Port #2
gei (unit number 3) = ExAP Port B

> rept-stat-card:mode=full:loc=1317
Command Accepted - Processing

eagle1 17-05-04 16:20:40 MST EAGLE 46.5.0.0.0-70.29.0
rept-stat-card:mode=full:loc=1317
Command entered at terminal #13.
;

eagle1 17-05-04 16:20:40 MST EAGLE 46.5.0.0.0-70.29.0
CARD   VERSION      TYPE      GPL      PST      SST      AST
1317   140-029-000    SLIC      ENUM64   IS-ANR    MPS Unavl  -----
ALARM STATUS           = No Alarms.
BLSLIC64 GPL version = 140-029-000
IMT BUS A              = Conn
IMT BUS B              = Disc
CLOCK A                = Fault
CLOCK B                = Active
CLOCK I                = Idle
MBD BIP STATUS         = Valid
MOTHER BOARD ID       = SLIC
DBD STATUS             = Valid
DBD TYPE               = None
DBD MEMORY SIZE       = 16384M
HW VERIFICATION CODE= ----
FPGA VERSION           = 9400036
BIOS VERSION           = 0ACFP00
PSOC VERSION           = 1.0
CURRENT TEMPERATURE   = 40C (104F)
PEAK TEMPERATURE:    = 42C (108F)    [17-05-04 15:51]
ENUM SM DATA TYPE    = DN
IPLNK STATUS
  IPLNK  IPADDR          STATUS      PST
  A      192.168.120.13  UP          IS-NR
  B      10.75.49.21    DOWN       OOS-MT
  C      10.75.50.21    DOWN       OOS-MT
  D      192.168.121.13  UP          IS-NR

```

```

DSM IP CONNECTION
PORT   PST           SST
A      OOS-MT       Unavail
D      OOS-MT       Unavail

```

Command Completed.

;

```
> pass:loc=1317:cmd="netstat -i"
```

Command Accepted - Processing

```

eagle1 17-05-04 16:25:06 MST  EAGLE 46.5.0.0.0-70.29.0
pass:loc=1317:cmd="netstat -i"
Command entered at terminal #13.

```

;

```

eagle1 17-05-04 16:25:06 MST  EAGLE 46.5.0.0.0-70.29.0
PASS: Command sent to card

```

;

```

eagle1 17-05-04 16:25:06 MST  EAGLE 46.5.0.0.0-70.29.0
SDS Shell Output

```

shellLib: unknown LED mode vi.

-> tklc\_ifShow

```

lo0 Link type:Local loopback Queue:none
inet 127.0.0.1 mask 255.255.255.255
inet6 unicast fe80::1%lo0 prefixlen 64 automatic
inet6 unicast ::1 prefixlen 128
UP RUNNING LOOPBACK MULTICAST NOARP ALLMULTI
MTU:1500 metric:1 VR:0 ifindex:1
RX packets:1487 mcast:3 errors:0 dropped:0
TX packets:1487 mcast:3 errors:0
collisions:0 unsupported proto:0
RX bytes:165k TX bytes:165k

```

```

gei0 Link type:Ethernet HWaddr 00:10:e0:bb:26:d0 Queue:none
capabilities: TXCSUM TX6CSUM VLAN_MTU VLAN_TXHWTAG VLAN_RXHWTAG
inet 192.168.120.13 mask 255.255.255.0 broadcast 192.168.120.255
inet6 unicast fe80::210:e0ff:febb:26d0%gei0 prefixlen 64 automatic
UP RUNNING SIMPLEX BROADCAST MULTICAST
MTU:1500 metric:1 VR:0 ifindex:2
RX packets:929 mcast:0 errors:0 dropped:0
TX packets:745 mcast:6 errors:0
collisions:0 unsupported proto:0
RX bytes:101k TX bytes:93k

```

```

gei2 Link type:Ethernet HWaddr 00:10:e0:bb:26:d2 Queue:none
capabilities: TXCSUM TX6CSUM VLAN_MTU VLAN_TXHWTAG VLAN_RXHWTAG
inet 10.75.49.21 mask 255.255.255.0 broadcast 10.75.49.255
inet6 unicast fe80::210:e0ff:febb:26d2%gei2 prefixlen 64 automatic
UP RUNNING SIMPLEX BROADCAST MULTICAST
MTU:1500 metric:1 VR:0 ifindex:3
RX packets:37 mcast:0 errors:0 dropped:0
TX packets:7 mcast:6 errors:0
collisions:0 unsupported proto:0
RX bytes:4596 TX bytes:510

```

```

gei1 Link type:Ethernet HWaddr 00:10:e0:bb:26:d1 Queue:none
capabilities: TXCSUM TX6CSUM VLAN_MTU VLAN_TXHWTAG VLAN_RXHWTAG

```

```
inet 10.75.50.21 mask 255.255.255.0 broadcast 10.75.50.255
inet6 unicast fe80::210:e0ff:febb:26d1%gei1 prefixlen 64 tentative automatic
UP SIMPLEX BROADCAST MULTICAST
MTU:1500 metric:1 VR:0 ifindex:4
RX packets:0 mcast:0 errors:0 dropped:0
TX packets:0 mcast:0 errors:0
collisions:0 unsupported proto:0
RX bytes:0 TX bytes:0
```

```
gei3      Link type:Ethernet HWaddr 00:10:e0:bb:26:d3 Queue:none
capabilities: TXCSUM TX6CSUM VLAN_MTU VLAN_TXHWTAG VLAN_RXHWTAG
inet 192.168.121.13 mask 255.255.255.0 broadcast 192.168.121.255
inet6 unicast fe80::210:e0ff:febb:26d3%gei3 prefixlen 64 automatic
UP RUNNING SIMPLEX BROADCAST MULTICAST
MTU:1500 metric:1 VR:0 ifindex:5
RX packets:921 mcast:0 errors:0 dropped:0
TX packets:745 mcast:6 errors:0
collisions:0 unsupported proto:0
RX bytes:101k TX bytes:93k
```

```
gei (unit number 0):
  PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
gei (unit number 2):
  PHY Flags: (0x12012) 100MB FDX DIX
gei (unit number 1):
  PHY Flags: (0x2012) DIX
gei (unit number 3):
  PHY Flags: (0x12114) AUTONEG 1000MB FDX DIX
value = 1 = 0x1
```

;

```
eagle1 17-05-04 16:25:16 MST EAGLE 46.5.0.0.0-70.29.0
```

```
NETSTAT command complete
```

;

## Procedure A.18 Upgrade SSL certificate from SHA-1 to SHA-512

### Appendix A.18 Upgrade SSL certificate from SHA-1 to SHA-512

|                                |  |  |
|--------------------------------|--|--|
| S<br>T<br>E<br>P<br>#          | <p>This procedure upgrade SSL certificate from SHA-1 to SHA-512.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p> |  |
| 1.<br><input type="checkbox"/> | <p><b>MPS</b> : Log in to the server.</p>  | <p>If not already logged-in, then login at MPS :</p> <pre>&lt;hostname&gt; console login: epapdev Password: &lt;password&gt;</pre> <p>Change to root user.</p> <pre>\$ su - root</pre>   |
| 2.<br><input type="checkbox"/> | <p>Verify SSL certificate</p>  | <p>To verify SSL certificate Run the following command:</p> <pre># /usr/bin/openssl x509 -in /usr/TKLC/plat/etc/ssl/server.crt -text -noout   grep "Signature Algorithm" Signature Algorithm: sha512WithRSAEncryption Signature Algorithm: sha512WithRSAEncryption</pre> <p>If signature algorithm is SHA 512 skip this procedure,otherwise proceed with the following step.</p>   |
| 3.<br><input type="checkbox"/> | <p>Find the IP for which the certificate has been generated in server.crt</p>  | <pre># openssl verify /usr/TKLC/plat/etc/ssl/server.crt /usr/TKLC/plat/etc/ssl/server.crt: CN = 10.248.11.14 error 18 at 0 depth lookup:self signed certificate OK</pre>   |
| 4.<br><input type="checkbox"/> | <p>Upgrade to SHA-512 in server.crt</p>  | <p>Note: The IP Address to be used in the below command is the IP displayed in the output of step 3.</p> <p>To upgrade SHA-1 to SHA-512 Run the following command:</p> <pre># /usr/bin/openssl req -x509 -sha512 -nodes -days 4015 -subj "/CN=&lt;IP Addr&gt;" -newkey rsa:2048 -keyout /usr/TKLC/plat/etc/ssl/server.key -out /usr/TKLC/plat/etc/ssl/server.crt</pre> <pre>Generating a 2048 bit RSA private key .....+++ .....+++ writing new private key to '/usr/TKLC/plat/etc/ssl/server.key'</pre> |
| 5.<br><input type="checkbox"/> | <p>Find the IP for which the certificate has been generated in server_dual.crt</p>   | <pre># openssl verify /usr/TKLC/plat/etc/ssl/server_dual.crt /usr/TKLC/plat/etc/ssl/server_dual.crt: CN = 10.248.11.14 error 18 at 0 depth lookup:self signed certificate OK</pre>   |

|                                 |                                       |   |
|---------------------------------|---------------------------------------|---|
| 6.<br><input type="checkbox"/>  | Upgrade to SHA-512 in server_dual.crt | <p>Note: The IP Address to be used in the below command is the IP displayed in the output of step 5.</p> <p>To upgrade SHA-1 to SHA-512 Run the following command:</p> <pre># /usr/bin/openssl req -x509 -sha512 -nodes -days 4015 -subj "/CN=&lt;IP Addr&gt;" -newkey rsa:2048 -keyout /usr/TKLC/plat/etc/ssl/server_dual.key -out /usr/TKLC/plat/etc/ssl/server_dual.crt</pre> <p>Generating a 2048 bit RSA private key<br/> .....+++<br/> .....+++<br/> writing new private key to<br/> '/usr/TKLC/plat/etc/ssl/server_dual.key'</p> |
| 7.<br><input type="checkbox"/>  | Restart httpd service                 | <p>Restart httpd service to reflect IP correctly. Use following command to restart httpd service:</p> <pre>\$ systemctl restart httpd</pre> <pre>[root@Natal-A ~]# service httpd restart Stopping httpd: [ OK ] Starting httpd: [Fri Jul 06 23:26:09 2018] [warn] _default_ VirtualHost overlap on port 8002, the first has precedence [Fri Jul 06 23:26:09 2018] [warn] _default_ VirtualHost overlap on port 443, the first has precedence [ OK ]</pre>   |
| 8.<br><input type="checkbox"/>  | Exit from root user                   | <p>Exit from root user. Use following command:</p> <pre>\$ exit</pre>   |
| 9.<br><input type="checkbox"/>  | Procedure Complete.                   | Return to the procedure that you came here from.  |
| 10.<br><input type="checkbox"/> | Note down the timestamp in log.       | <p>Run the following command:</p> <pre>\$ date</pre>  |

## Procedure A.19 Disable Epap VIP And Deactivate PDBA Proxy Feature

If PDBA Proxy feature is NOT enabled and VIP is NOT configured, this procedure can be skipped.

**Ensure the provisioning activity has been halted before proceeding!!!**

### Appendix A.19 Disable Epap VIP And Deactivate PDBA Proxy Feature

|                       |  |
|-----------------------|--|
| S<br>T<br>E<br>P<br># | <p>This procedure outlines the steps to disable the PDBA proxy feature.</p> <p>Estimated time: 5 minutes</p> |
|-----------------------|--|

|   |   |  |
|---|---|--|
| <p>1.</p> <p><input type="checkbox"/></p> | <p><b>MPS A:</b><br/>Choose option "8" to display "PDB Configuration Menu."</p>         | <p>MPS Side A:</p> <pre> /-----EPAP Configuration Menu-----\   1   Display Configuration                    2   Configure Network Interfaces Menu       3   Set Time Zone                           4   Exchange Secure Shell Keys             5   Change Password                        6   Platform Menu                          7   Configure NTP Server                   8   PDB Configuration Menu                 9   Security                              10   SNMP Configuration                    11   Configure Alarm Feed                  12   Configure Query Server                13   Configure Query Server Alarm Feed     14   Configure SNMP Agent Community        15   Mate Disaster Recovery                 e   Exit                                 \-----\ </pre> <p>Enter Choice: 8</p> |
| <p>2.</p> <p><input type="checkbox"/></p> | <p><b>MPS A:</b><br/>Choose option "6" to "Change PDBA Proxy State".</p>                | <p>MPS Side A:</p> <pre> /-----Configure PDB Menu-----\   1   Configure PDB Network                    2   RTDB Homing Menu                       3   Change MPS Provisionable State         4   Create PDB                              5   Change Auto DB Recovery State           6   Change PDBA Proxy State                 e   Exit                                 \-----\ </pre> <p>Enter Choice: 6</p>  |
| <p>3.</p> <p><input type="checkbox"/></p> | <p><b>MPS A:</b><br/>Enter "Y" to stop PDBA / EPAP software and disable PDBA Proxy.</p> | <p>PDBA PROXY is currently ENABLED.<br/>Do you want to DISABLE PDBA Proxy? [N]: Y</p>  |

|   |   |  |
|---|---|--|
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>MPS A:</b><br/>Enter "1" to "Display Configuration"</p>               | <p>MPS Side A:</p> <pre> /-----EPAP Configuration Menu-----\   1   Display Configuration                  2   Configure Network Interfaces Menu      3   Set Time Zone                          4   Exchange Secure Shell Keys             5   Change Password                        6   Platform Menu                          7   Configure NTP Server                   8   PDB Configuration Menu                9   Security                              10   SNMP Configuration                     11   Configure Alarm Feed                   12   Configure Query Server                 13   Configure Query Server Alarm Feed     14   Configure SNMP Agent Community        15   Mate Disaster Recovery                  e   Exit                                 \-----\ </pre> <p>Enter Choice: 1</p>  |
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>MPS A:</b><br/>Verify that the state of PDBA Proxy Feature is No.</p> | <p>MPS Side A:</p> <pre> EPAP A Provisioning Network IP Address = 192.168.61.115 EPAP B Provisioning Network IP Address = 192.168.61.116 Provisioning Network Netmask          = 255.255.255.0 Provisioning Network Default Router   = 192.168.61.1 EPAP A Backup Prov Network IP Address = Not configured EPAP B Backup Prov Network IP Address = Not configured Backup Prov Network Netmask           = Not configured Backup Prov Network Default Router    = Not configured EPAP A Sync Network Address           = 192.168.2.100 EPAP B Sync Network Address           = 192.168.2.200 EPAP A Main DSM Network Address       = 192.168.120.100 EPAP B Main DSM Network Address       = 192.168.120.200 EPAP A Backup DSM Network Address     = 192.168.121.100 EPAP B Backup DSM Network Address     = 192.168.121.200 EPAP A HTTP Port                      = 80 EPAP B HTTP Port                      = 80 EPAP A HTTP SuExec Port                = 8001 EPAP B HTTP SuExec Port                = 8001 EPAP A Banner Connection Port         = 8473 EPAP B Banner Connection Port         = 8473 EPAP A Static NAT Address              = Not configured EPAP B Static NAT Address              = Not configured PDBI Port                              = 5873 Remote MPS A Static NAT Address        = Not configured Remote MPS A HTTP Port                 = 80 Local Provisioning VIP                 = 192.168.15.152 Remote Provisioning VIP                = 192.168.15.172 Local PDBA Address                     = 192.168.15.115 Remote PDBA Address                    = 192.168.16.115 Remote PDBA B Address                  = 192.168.16.116 Time Zone                              = America/New_York </pre> |

|                                    |  |  |
|------------------------------------|--|--|
|                                    |  | <pre> PDB Database = Exists Preferred PDB = Standby Allow updates from alternate PDB = Yes Auto DB Recovery Enabled = Yes PDBA Proxy Enabled = NO Press return to continue... </pre>   |
| <p>6.</p> <input type="checkbox"/> | <p><b>MPS A:</b><br/>Choose option "2" to enter the "Configure Network Interfaces Menu".</p> | <pre> MPS Side A:  /-----EPAP Configuration Menu-----\  /-----\    1   Display Configuration     -----     2   Configure Network Interfaces Menu     -----     3   Set Time Zone     -----     4   Exchange Secure Shell Keys     -----     5   Change Password     -----     6   Platform Menu     -----     7   Configure NTP Server     -----     8   PDB Configuration Menu     -----     9   Security     -----     10   SNMP Configuration     -----     11   Configure Alarm Feed     -----     12   Configure Query Server     -----     13   Configure Query Server Alarm Feed     -----     14   Configure SNMP Agent Community     -----     15   Mate Disaster Recovery     -----     e   Exit    \-----/ Enter Choice: 2 </pre> |

|                                    |  |   |
|------------------------------------|--|---|
| <p>7.</p> <input type="checkbox"/> | <p><b>MPS A:</b><br/>Choose option "7" to enter the "Configure Provisioning VIP Addresses Menu".</p>         | <p>MPS Side A:</p> <pre> /-----Configure Network Interfaces Menu-----\   1   Configure Provisioning Network   2   Configure Sync Network   3   Configure DSM Network   4   Configure Backup Provisioning Network   5   Configure Forwarded Ports   6   Configure Static NAT Addresses   7   Configure Provisioning VIP Addresses   e   Exit \-----/ </pre> <p>Enter Choice: 7</p> |
| <p>8.</p> <input type="checkbox"/> | <p><b>MPS A:</b><br/>Remove the local provisioning VIP and remote provisioning VIP, by entering 0.0.0.0.</p> | <pre> Verifying root connectivity with mate... EPAP local provisioning Virtual IP Address [192.168.15.152]: 0.0.0.0 EPAP remote provisioning Virtual IP Address [192.168.15.172]: 0.0.0.0 </pre>  |
| <p>9.</p> <input type="checkbox"/> | <p><b>MPS A:</b><br/>Choose option "e" to exit.</p>  | <p>MPS Side A:</p> <pre> /-----Configure Network Interfaces Menu-----\   1   Configure Provisioning Network   2   Configure Sync Network   3   Configure DSM Network   4   Configure Backup Provisioning Network   5   Configure Forwarded Ports   6   Configure Static NAT Addresses   7   Configure Provisioning VIP Addresses   e   Exit \-----/ </pre> <p>Enter Choice: e</p> |

|  |   |  |
|--|---|--|
| <p>10.</p> <p><input type="checkbox"/></p> | <p><b>MPS A:</b></p> <p>Choose option "1" to "Display Configuration."</p>   | <p>MPS Side A:</p> <pre> -----EPAP Configuration Menu-----  1   Display Configuration  2   Configure Network Interfaces Menu  3   Set Time Zone  4   Exchange Secure Shell Keys  5   Change Password  6   Platform Menu  7   Configure NTP Server  8   PDB Configuration Menu  9   Security 10   SNMP Configuration 11   Configure Alarm Feed 12   Configure Query Server 13   Configure Query Server Alarm Feed 14   Configure SNMP Agent Community 15   Mate Disaster Recovery  e   Exit ----- Enter Choice: 1 </pre>  |
| <p>11.</p> <p><input type="checkbox"/></p> | <p><b>MPS A:</b></p> <p>Verify VIP addresses are set to <b>0.0.0.0</b>.</p> | <p>MPS Side A:</p> <pre> EPAP A Provisioning Network IP Address = 192.168.61.115 EPAP B Provisioning Network IP Address = 192.168.61.116 Provisioning Network Netmask          = 255.255.255.0 Provisioning Network Default Router    = 192.168.61.1 EPAP A Backup Prov Network IP Address = Not configured EPAP B Backup Prov Network IP Address = Not configured Backup Prov Network Netmask           = Not configured Backup Prov Network Default Router     = Not configured EPAP A Sync Network Address           = 192.168.2.100 EPAP B Sync Network Address           = 192.168.2.200 EPAP A Main DSM Network Address        = 192.168.120.100 EPAP B Main DSM Network Address        = 192.168.120.200 EPAP A Backup DSM Network Address      = 192.168.121.100 EPAP B Backup DSM Network Address      = 192.168.121.200 EPAP A HTTP Port                       = 80 EPAP B HTTP Port                       = 80 EPAP A HTTP SuExec Port                 = 8001 EPAP B HTTP SuExec Port                 = 8001 EPAP A Banner Connection Port           = 8473 EPAP B Banner Connection Port           = 8473 EPAP A Static NAT Address                = Not configured EPAP B Static NAT Address                = Not configured PDBI Port                               = 5873 Remote MPS A Static NAT Address          = Not configured Remote MPS A HTTP Port                  = 80 Local Provisioning VIP                   = 0.0.0.0 Remote Provisioning VIP                  = 0.0.0.0 Local PDBA Address                       = 192.168.15.115 Remote PDBA Address                     = 192.168.16.115 Remote PDBA B Address                    = 192.168.16.116 Time Zone                               = America/New_York PDB Database                            = Exists Preferred PDB                           = Standby Allow updates from alternate PDB         = Yes Auto DB Recovery Enabled                 = Yes PDBA Proxy Enabled                      = No </pre> |

|                                 |  |   |
|---------------------------------|--|---|
|                                 |  | Press return to continue...   |
| 12.<br><input type="checkbox"/> | <b>MPS A:</b><br>Choose "e" to exit.             | MPS Side A:<br><br><pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration                   -----    2   Configure Network Interfaces Menu      -----    3   Set Time Zone                          -----    4   Exchange Secure Shell Keys            -----    5   Change Password                       -----    6   Platform Menu                         -----    7   Configure NTP Server                   -----    8   PDB Configuration Menu                -----    9   Security                              -----   10   SNMP Configuration                    -----   11   Configure Alarm Feed                   -----   12   Configure Query Server                 -----   13   Configure Query Server Alarm Feed     -----   14   Configure SNMP Agent Community        -----   15   Mate Disaster Recovery                 -----    e   Exit                                 \-----/ </pre> Enter Choice: e |
| 13.<br><input type="checkbox"/> | Return to the procedure that you came here from. |   |
| 14.<br><input type="checkbox"/> | Note down the timestamp in log.                  | Run the following command:<br><b>\$ date</b>  |

## Procedure A.20 Enable EPAP PDBA Proxy and EPAP VIP Optional Features

**Note:** Ensure the provisioning activity has been halted before proceeding.

### Appendix A.20 Enable EPAP PDBA Proxy and EPAP VIP Optional Feature

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure outlines the steps for provisioning the PDBA proxy VIP.<br>Estimated time: 10 minutes |   |
| 1.                               | <b>MPS A:</b><br>Login as epapdev to 1A server.  | Login: <b>epapdev</b><br>Password: <b>&lt;epapdev_password&gt;</b>  |
| 2.                               | <b>MPS A:</b><br>Perform "syscheck" on the 1A server.  | <pre> <b>\$ syscheck</b> Running modules in class hardware...      OK Running modules in class proc...          OK Running modules in class net...           OK Running modules in class disk...          OK Running modules in class services...      OK Running modules in class system...        OK  LOG LOCATION: /var/TKLC/log/syscheck/fail_log  Note: syscheck may report following error which can be ignored: * defaultroute: FAILURE:: MINOR::5000000000040000 -- Platform Health Check Failure * defaultroute: FAILURE:: ping6 return non-zero code * defaultroute: FAILURE:: MAJOR::3000000000002000 -- Server Default Route Network Error * defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged </pre> |
| 3.                               | <b>MPS A:</b><br>SSH to EPAP 1B.   | <b>\$ssh mate</b>   |
| 4.                               | <b>MPS B:</b><br>Perform "syscheck" on the 1B.   | <pre> <b>\$ syscheck</b> Running modules in class hardware...      OK Running modules in class proc...          OK Running modules in class net...           OK Running modules in class disk...          OK Running modules in class services...      OK Running modules in class system...        OK  LOG LOCATION: /var/TKLC/log/syscheck/fail_log  Note: syscheck may report following error which can be ignored: </pre>   |

|    |  |  |
|----|--|--|
|    |  | <pre>* defaultroute: FAILURE:: MINOR::500000000040000 -- Platform Health Check Failure * defaultroute: FAILURE:: ping6 return non-zero code * defaultroute: FAILURE:: MAJOR::300000000002000 -- Server Default Route Network Error * defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged  #</pre>  |
| 5. | <b>MPS B:</b><br>Exit back to the 1A server                  | <pre>\$ exit</pre>   |
| 6. | <b>MPS A:</b><br>Log into epapconfig                         | <pre>\$su - epapconfig Password: warning: smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904.</pre>  |
| 7. | <b>MPS A:</b><br>Choose option "1" to display Configuration. | <pre>MPS Side A:  /-----EPAP Configuration Menu-----\   1   Display Configuration                    2   Configure Network Interfaces Menu        3   Set Time Zone                            4   Exchange Secure Shell keys              5   Change Password                         6   Platform Menu                           7   Configure NTP Server                     8   PDB Configuration Menu                  9   Security                                10   SNMP Configuration                     11   Configure Alarm Feed                    12   Configure Query Server                  13   Configure Query Server Alarm Feed       14   Configure SNMP Agent Community          15   Mate Disaster Recovery                   e   Exit                                  \-----/  Enter Choice: 1</pre> |
| 8. | <b>MPS A:</b>  | <pre>MPS Side A:  EPAP A Provisioning Network IP Address = 192.168.61.115 EPAP B Provisioning Network IP Address = 192.168.61.116 Provisioning Network Netmask           = 255.255.255.0</pre>   |

|    |  |   |
|----|--|---|
|    | Verify that the VIP is not configured.   | <pre> Provisioning Network Default Router = 192.168.61.1 EPAP A Backup Prov Network IP Address = Not configured EPAP B Backup Prov Network IP Address = Not configured Backup Prov Network Netmask = Not configured Backup Prov Network Default Router = Not configured EPAP A Sync Network Address = 192.168.2.100 EPAP B Sync Network Address = 192.168.2.200 EPAP A Main DSM Network Address = 192.168.120.100 EPAP B Main DSM Network Address = 192.168.120.200 EPAP A Backup DSM Network Address = 192.168.121.100 EPAP B Backup DSM Network Address = 192.168.121.200 EPAP A HTTP Port = 80 EPAP B HTTP Port = 80 EPAP A HTTP SuExec Port = 8001 EPAP B HTTP SuExec Port = 8001 EPAP A Banner Connection Port = 8473 EPAP B Banner Connection Port = 8473 EPAP A Static NAT Address = Not configured EPAP B Static NAT Address = Not configured PDBI Port = 5873 Remote MPS A Static NAT Address = Not configured Remote MPS A HTTP Port = 80 Local Provisioning VIP = Not configured Remote Provisioning VIP = Not configured Local PDBA Address = 192.168.61.115 Remote PDBA Address = 192.168.61.181 Remote PDBA B Address = 192.168.61.182 Time Zone = America/New_York PDB Database = Exists Preferred PDB = Standby Allow updates from alternate PDB = Yes Auto DB Recovery Enabled = Yes PDBA Proxy Enabled = No  Press return to continue... </pre> |
| 9. | <b>MPS A:</b><br>Choose option "2" to enter the "Configure Network Interfaces Menu". | MPS Side A:   |

|     |   |   |
|-----|---|---|
|     |   | <pre> /-----EPAP Configuration Menu-----\ 1   Display Configuration 2   Configure Network Interfaces Menu 3   Set Time Zone 4   Exchange Secure Shell Keys 5   Change Password 6   Platform Menu 7   Configure NTP Server 8   PDB Configuration Menu 9   Security 10   SNMP Configuration 11   Configure Alarm Feed 12   Configure Query Server 13   Configure Query Server Alarm Feed 14   Configure SNMP Agent Community 15   Mate Disaster Recovery e   Exit </pre> <p>Enter Choice: 2</p> |
| 10. | <p><b>MPS A:</b><br/>Choose option "6" to enter the "Configure Provisioning VIP Addresses Menu".</p>                        | <p>MPS Side A:</p> <pre> /-----Configure Network Interfaces Menu-----\ 1   Configure Provisioning Network 2   Configure Sync Network 3   Configure DSM Network 4   Configure Backup Provisioning Network 5   Configure Static NAT Addresses 6   Configure Provisioning VIP Addresses e   Exit </pre> <p>Enter Choice: 6</p>   |
| 11. | <p><b>MPS A:</b><br/>Enter "Y" to stop PDBA / EPAP software then enter VIP address for the local and remote PDBA sites.</p> | <pre> Verifying root connectivity with mate... EPAP software and PDBA are running. Stop them? [N]: Y EPAP software is running on mate MPS. Stop it? [N]: Y EPAP local provisioning Virtual IP Address [0.0.0.0]: <b>192.168.15.152</b> EPAP remote provisioning Virtual IP Address [0.0.0.0]: <b>192.168.15.172</b> </pre>  |

|     |   |   |
|-----|---|---|
| 12. | <b>MPS A:</b><br>Choose option "e" to exit.                   | MPS Side A:<br><pre> /-----Configure Network Interfaces Menu-----\   1   Configure Provisioning Network   2   Configure Sync Network   3   Configure DSM Network   4   Configure Backup Provisioning Network   5   Configure Static NAT Addresses   6   Configure Provisioning VIP Addresses   e   Exit \-----/ Enter Choice: e </pre>  |
| 13. | <b>MPS A:</b><br>Choose option "1" to "Display Configuration. | MPS Side A:<br><pre> /-----EPAP Configuration Menu-----\   1   Display Configuration   2   Configure Network Interfaces Menu   3   Set Time Zone   4   Exchange Secure Shell Keys   5   Change Password   6   Platform Menu   7   Configure NTP Server   8   PDB Configuration Menu   9   Security   10   SNMP Configuration   11   Configure Alarm Feed   12   Configure Query Server   13   Configure Query Server Alarm Feed   14   Configure SNMP Agent Community   15   Mate Disaster Recovery   e   Exit \-----/ Enter Choice: 1 </pre> |
| 14. | <b>MPS A:</b><br>Verify VIP addresses                         | MPS Side A:<br><pre> EPAP A Provisioning Network IP Address = 192.168.61.115 EPAP B Provisioning Network IP Address = 192.168.61.116 Provisioning Network Netmask           = 255.255.255.0 Provisioning Network Default Router     = 192.168.61.1 EPAP A Backup Prov Network IP Address   = Not configured </pre>  |

|     |   |  |
|-----|---|--|
|     |   | <pre> EPAP B Backup Prov Network IP Address = Not configured Backup Prov Network Netmask         = Not configured Backup Prov Network Default Router   = Not configured EPAP A Sync Network Address          = 192.168.2.100 EPAP B Sync Network Address          = 192.168.2.200 EPAP A Main DSM Network Address       = 192.168.120.100 EPAP B Main DSM Network Address       = 192.168.120.200 EPAP A Backup DSM Network Address     = 192.168.121.100 EPAP B Backup DSM Network Address     = 192.168.121.200 EPAP A HTTP Port                     = 80 EPAP B HTTP Port                     = 80 EPAP A HTTP SuExec Port               = 8001 EPAP B HTTP SuExec Port               = 8001 EPAP A Banner Connection Port         = 8473 EPAP B Banner Connection Port         = 8473 EPAP A Static NAT Address              = Not configured EPAP B Static NAT Address              = Not configured PDBI Port                             = 5873 Remote MPS A Static NAT Address        = Not configured Remote MPS A HTTP Port                 = 80 Local Provisioning VIP                 = 192.168.15.152 Remote Provisioning VIP                 = 192.168.15.172 Local PDBA Address                     = 192.168.15.115 Remote PDBA Address                    = 192.168.16.115 Remote PDBA B Address                  = 192.168.16.116 Time Zone                              = America/New_York PDB Database                           = Exists Preferred PDB                          = Standby Allow updates from alternate PDB       = Yes Auto DB Recovery Enabled                = Yes PDBA Proxy Enabled                     = No Press return to continue... </pre> |
| 15. | <p><b>MPS A:</b><br/>Choose "e" to exit</p> |  |

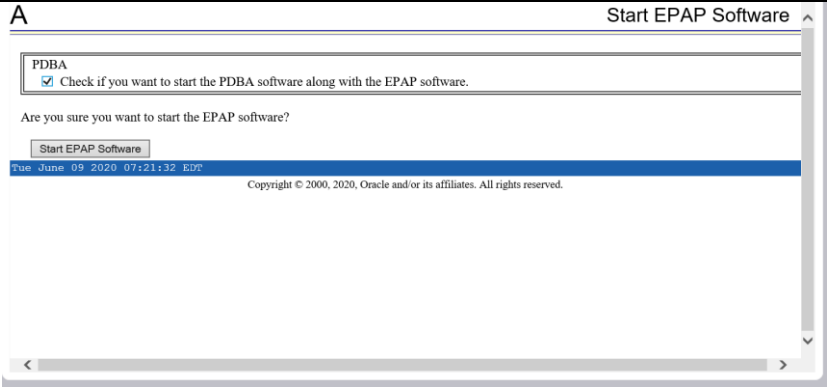
|     |   |  |
|-----|---|--|
|     |   | <pre> /-----EPAP Configuration Menu-----\ /-----\ 1   Display Configuration 2   Configure Network Interfaces Menu 3   Set Time Zone 4   Exchange Secure Shell Keys 5   Change Password 6   Platform Menu 7   Configure NTP Server 8   PDB Configuration Menu 9   Security 10   SNMP Configuration 11   Configure Alarm Feed 12   Configure Query Server 13   Configure Query Server Alarm Feed 14   Configure SNMP Agent Community 15   Mate Disaster Recovery e   Exit \-----/ Enter Choice: e </pre> |
| 16. | <b>MPS A:</b><br>Verify that you can ping both VIP addresses. | <pre> \$ ping &lt;local VIP&gt; \$ ping &lt;remote VIP&gt; </pre>  |
| 17. | <b>MPS A:</b><br>Log into epapconfig                          | <pre> \$ su - epapconfig warning: smartmatch is experimental at /usr/TKLC/plat/lib/security/User.pm line 904. </pre>   |
| 18. | <b>MPS A:</b><br>Enter "1" to "Display Configuration"         |  |

|     |   |   |
|-----|---|---|
|     |   | <pre> /-----EPAP Configuration Menu-----\  1   Display Configuration  2   Configure Network Interfaces Menu  3   Set Time Zone  4   Exchange Secure Shell Keys  5   Change Password  6   Platform Menu  7   Configure NTP Server  8   PDB Configuration Menu  9   Security 10   SNMP Configuration 11   Configure Alarm Feed 12   Configure Query Server 13   Configure Query Server Alarm Feed 14   Configure SNMP Agent Community 15   Mate Disaster Recovery  e   Exit -----\  Enter Choice: 1 </pre>  |
| 19. | <b>MPS A:</b><br>Verify that the state of PDBA Proxy Feature is No. | MPS Side A:<br>EPAP A Provisioning Network IP Address = 192.168.61.115<br>EPAP B Provisioning Network IP Address = 192.168.61.116<br>Provisioning Network Netmask = 255.255.255.0<br>Provisioning Network Default Router = 192.168.61.1<br>EPAP A Backup Prov Network IP Address = Not configured<br>EPAP B Backup Prov Network IP Address = Not configured<br>Backup Prov Network Netmask = Not configured<br>Backup Prov Network Default Router = Not configured<br>EPAP A Sync Network Address = 192.168.2.100<br>EPAP B Sync Network Address = 192.168.2.200<br>EPAP A Main DSM Network Address = 192.168.120.100<br>EPAP B Main DSM Network Address = 192.168.120.200<br>EPAP A Backup DSM Network Address = 192.168.121.100<br>EPAP B Backup DSM Network Address = 192.168.121.200<br>EPAP A HTTP Port = 80<br>EPAP B HTTP Port = 80<br>EPAP A HTTP SuExec Port = 8001<br>EPAP B HTTP SuExec Port = 8001<br>EPAP A Banner Connection Port = 8473<br>EPAP B Banner Connection Port = 8473<br>EPAP A Static NAT Address = Not configured<br>EPAP B Static NAT Address = Not configured<br>PDBI Port = 5873<br>Remote MPS A Static NAT Address = Not configured<br>Remote MPS A HTTP Port = 80<br>Local Provisioning VIP = Not configured<br>Remote Provisioning VIP = Not configured<br>Local PDBA Address = 192.168.61.115<br>Remote PDBA Address = 192.168.61.181<br>Remote PDBA B Address = 192.168.61.182<br>Time Zone = America/New_York |

|     |  |  |
|-----|--|--|
|     |  | <pre> PDB Database = Exists Preferred PDB = Standby Allow updates from alternate PDB = Yes Auto DB Recovery Enabled = Yes PDBA Proxy Enabled = NO Press return to continue... </pre>   |
| 20. | <p><b>MPS A:</b><br/>Choose option "8" to display "PDB Configuration Menu"</p> | <pre> MPS Side A:  /-----EPAP Configuration Menu-----\ /-----\ 1   Display Configuration ----- 2   Configure Network Interfaces Menu ----- 3   Set Time Zone ----- 4   Exchange Secure Shell keys ----- 5   Change Password ----- 6   Platform Menu ----- 7   Configure NTP Server ----- 8   PDB Configuration Menu ----- 9   Security ----- 10   SNMP Configuration ----- 11   Configure Alarm Feed ----- 12   Configure Query Server ----- 13   Configure Query Server Alarm Feed ----- 14   Configure SNMP Agent Community ----- 15   Mate Disaster Recovery ----- e   Exit \-----/  Enter Choice: 8 </pre> |
| 21. | <p><b>MPS A:</b><br/>Choose option "6" to "Change PDBA Proxy State".</p>       | <pre> MPS Side A:  /-----Configure PDB Menu-----\ /-----\ 1   Configure PDB Network ----- 2   RTDB Homing Menu ----- 3   Change MPS Provisionable State ----- 4   Create PDB ----- 5   Change Auto DB Recovery State ----- 6   Change PDBA Proxy State ----- e   Exit \-----/  Enter Choice: 6 </pre>  |

|     |  |   |
|-----|--|---|
| 22. | <p><b>MPS A:</b><br/>Enter "Y" to stop PDBA / EPAP software and enable PDBA Proxy.</p> | <p>EPAP software and PDBA are running. Stop them? [N]: Y<br/> EPAP software is running on mate MPS. Stop it? [N]: Y<br/> PDBA PROXY is currently DISABLED.<br/> Do you want to ENABLE PDBA Proxy? [N]: Y</p>  |
| 23. | <p><b>MPS A:</b><br/>Enter "e" to exit</p>   | <p>MPS Side A:<br/> /-----Configure PDB Menu-----\<br/> /-----\<br/> 1   Configure PDB Network<br/> -----\<br/> 2   RTDB Homing Menu<br/> -----\<br/> 3   Change MPS Provisionable State<br/> -----\<br/> 4   Create PDB<br/> -----\<br/> 5   Change Auto DB Recovery State<br/> -----\<br/> 6   Change PDBA Proxy State<br/> -----\<br/> e   Exit<br/> \-----\<br/> Enter Choice: e</p>  |
| 24. | <p><b>MPS A:</b><br/>Enter "1" to "Display Configuration"</p>                          |   |
| 25. | <p><b>MPS A:</b><br/>Verify that the state of PDBA Proxy Feature is Yes.</p>           | <p>MPS Side A<br/> EPAP A Provisioning Network IP Address = 192.168.61.115<br/> EPAP B Provisioning Network IP Address = 192.168.61.116<br/> Provisioning Network Netmask = 255.255.255.0<br/> Provisioning Network Default Router = 192.168.61.1<br/> EPAP A Backup Prov Network IP Address = Not configured<br/> EPAP B Backup Prov Network IP Address = Not configured<br/> Backup Prov Network Netmask = Not configured<br/> Backup Prov Network Default Router = Not configured<br/> EPAP A Sync Network Address = 192.168.2.100<br/> EPAP B Sync Network Address = 192.168.2.200<br/> EPAP A Main DSM Network Address = 192.168.120.100<br/> EPAP B Main DSM Network Address = 192.168.120.200<br/> EPAP A Backup DSM Network Address = 192.168.121.100<br/> EPAP B Backup DSM Network Address = 192.168.121.200<br/> EPAP A HTTP Port = 80<br/> EPAP B HTTP Port = 80<br/> EPAP A HTTP SuExec Port = 8001<br/> EPAP B HTTP SuExec Port = 8001<br/> EPAP A Banner Connection Port = 8473<br/> EPAP B Banner Connection Port = 8473<br/> EPAP A Static NAT Address = Not configured<br/> EPAP B Static NAT Address = Not configured<br/> PDBI Port = 5873<br/> Remote MPS A Static NAT Address = Not configured<br/> Remote MPS A HTTP Port = 80<br/> Local Provisioning VIP = 192.168.15.152<br/> Remote Provisioning VIP = 192.168.15.172<br/> Local PDBA Address = 192.168.15.115<br/> Remote PDBA Address = 192.168.16.115<br/> Remote PDBA B Address = 192.168.16.116</p> |

|     |  |  |
|-----|--|--|
|     |  | Time Zone = America/New_York<br>PDB Database = Exists<br>Preferred PDB = Standby<br>Allow updates from alternate PDB = Yes<br>Auto DB Recovery Enabled = Yes<br><b>PDBA Proxy Enabled = Yes</b>  |
| 26. | <b>MPS A:</b><br>Enter "e" to exit                                       | MPS Side A:<br><br>/-----EPAP Configuration Menu-----\<br>/-----\<br>1   Display Configuration<br>-----<br>2   Configure Network Interfaces Menu<br>-----<br>3   Set Time Zone<br>-----<br>4   Exchange Secure Shell keys<br>-----<br>5   Change Password<br>-----<br>6   Platform Menu<br>-----<br>7   Configure NTP Server<br>-----<br>8   PDB Configuration Menu<br>-----<br>9   Security<br>-----<br>10   SNMP Configuration<br>-----<br>11   Configure Alarm Feed<br>-----<br>12   Configure Query Server<br>-----<br>13   Configure Query Server Alarm Feed<br>-----<br>14   Configure SNMP Agent Community<br>-----<br>15   Mate Disaster Recovery<br>-----<br>e   Exit<br>\-----\<br><br>Enter Choice: e |
| 27. | <b>MPS A:</b><br><b>EPAP A:</b> Log in to the web GUI as user "uiadmin". | <b>User name: uiadmin</b><br><b>Password:</b>  |

|     |  |  |
|-----|--|--|
| 28. | <p><b>MPS A:</b> Start EPAP and PDBA Software.</p> <p>On the menu, click Process Control-&gt;Stap Software.</p> <p>Click "Stap EPAP Software" Button</p> |    |
| 29. | <p><b>MPS A:</b> Perform "syscheck" on MPS-A.</p>  | <pre>\$ syscheck Running modules in class hardware... OK Running modules in class proc... OK Running modules in class net... OK Running modules in class disk... OK Running modules in class services... OK Running modules in class system... OK  LOG LOCATION: /var/TKLC/log/syscheck/fail_log Note: syscheck may report following error which can be ignored: * defaultroute: FAILURE:: MINOR::500000000040000 -- Platform Health Check Failure * defaultroute: FAILURE:: ping6 return non-zero code * defaultroute: FAILURE:: MAJOR::300000000002000 -- Server Default Route Network Error * defaultroute: FAILURE:: The IPv6 default route at fe80::f64e:5ff:fe49:9b7f cannot be pinged</pre> |
| 30. | <p><b>MPS A:</b> SSH to MPS 1B.</p>  | <pre>\$ ssh mate</pre>   |
| 31. | <p><b>MPS B:</b> Start Epap software on MPS 1B.</p>  | <pre>\$ systemctl start Epap ~~ /etc/init.d/Epap start ~~ "EPAP_RELEASE" is set to "0.613" EPAP application start Successful</pre>   |
| 32. | <p><b>MPS B:</b> Perform "syscheck" on MPS 1B.</p>   | <pre>\$ syscheck Running modules in class hardware... OK Running modules in class proc... OK Running modules in class net... OK Running modules in class disk... OK</pre>  |



|                                |  |  |
|--------------------------------|--|--|
|                                |  | <pre> ~~ /etc/init.d/Pdba start ~~ PDBA application started.  \$ systemctl Pdba status ~~ /etc/init.d/Pdba status ~~ PDBA application is running. </pre> |
| 4.<br><input type="checkbox"/> | Verify that the uiEdit "DSM_MIN_MEM_SIZE" variable is added and updated correctly. | <pre> \$ uiEdit   grep DSM_MIN_MEM_SIZE "DSM_MIN_MEM_SIZE" is set to "12046" </pre>  |
| 5.<br><input type="checkbox"/> | Procedure Complete   | Procedure is complete.   |
| 6.<br><input type="checkbox"/> | Note down the timestamp in log.  | Run the following command:<br><pre>\$ date</pre>   |

## Procedure A.22 Restart Mysql service for PDB on Query Server

### Procedure A.22 Restart MySQL service for PDB on Query Server

**NOTE:** The MySQL services should be started as non-root **admin** user only.

|   |  |
|---|--|
| <p>This procedure restarts the MySQL service for PDB on Query Server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>INSTALL ASSISTANCE</u>.</p> |  |
| Login to EAGLE QS as QS admin.  | <pre> login: &lt;admin_user&gt; Password: &lt;admin_password&gt; </pre>        |
| Start the mysqlpdb service.   | <pre> \$ sudo systemctl stop mysqld . . . Waiting for mysqlpdb to stop </pre>  |
| Verify that mysqlpdb service is running.  | <pre> \$ sudo systemctl start mysqld Waiting for mysqlpdb to start done </pre> |
| Start the mysqlpdb service.   | <pre> \$ sudo systemctl start mysqld PID:8841 mysqlpdb is running. </pre>      |
| Procedure Complete  | Procedure is complete.   |

## Procedure A.22 Restart MySQL service for PDB on Query Server

**NOTE:** The MySQL services should be started as non-root **admin** user only.

|                                 |  |
|---------------------------------|--|
| Note down the timestamp in log. | Run the following command:<br><br><b>\$ date</b> |
|---------------------------------|--|

## Procedure A.23 Get parse9Dig file from EPAP 16.3 ISO

### Appendix A. 23 Get parse9Dig file from EPAP 16.3 ISO

|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure extract parse9Dig script file from EPAP 16.3 ISO.   |  |
|                                  | Check off (✓)each step as it is completed. Boxes have been provided for this purpose under each step number.   |  |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <b>INSTALL ASSISTANCE</b> .   |  |
|                                  | 1.<br><input type="checkbox"/>   | <b>MPS A:</b> Login as admusr.<br><br>login: <admin_user><br>Password: <admin_password>                              |
|                                  | 2.<br><input type="checkbox"/>   | <b>MPS A:</b> Copy ISO on MPS A.<br><br>Perform Procedure A.12 or copy EPAP 17.0 ISO to /var/TKLC/upgrade directory. |
|                                  | 3.<br><input type="checkbox"/>   | <b>MPS A:</b> Switch to root user.<br><br>Switch to root user.<br><br><b>\$ su – root</b><br><b>Password:</b>        |
| 4.<br><input type="checkbox"/>   | <b>MPS A:</b> Create directory using mkdir.<br><br>Create /mnt/iso directory using following command:<br><br><b># mkdir /mnt/iso</b>   |  |
| 5.<br><input type="checkbox"/>   | <b>MPS A:</b> Mount ISO on above path<br><br>Mount ISO on above created path.<br><br><b># mount -o loop &lt;16.3.a.0.0-b.b.b ISO with full path which is copied in step 2&gt; &lt;full path of directory created in step 4&gt;</b><br><br>As follows:<br><b># mount -o loop /var/TKLC/upgrade/EPAP-16.3.0.0.0_163.8.0-x86_64.iso /mnt/iso/</b> |  |

## Appendix A. 23 Get parse9Dig file from EPAP 16.3 ISO

|                                 |  |  |
|---------------------------------|--|--|
| 6.<br><input type="checkbox"/>  | <b>MPS A:</b> Extract TKLCepap rpm from the ISO.                   | Copy TKLCepap rpm at /tmp directory.<br><br># cp <directory created in step 4>/Packages/<TKLCepap rpm, the same version which is copied in step 2> /tmp<br><br>As follows:<br><b># cp /mnt/iso/Packages/TKLCepap-163.0.8-16.3.0.0.0_163.8.0.x86_64.rpm /tmp/</b>   |
| 7.<br><input type="checkbox"/>  | <b>MPS A:</b> Change directory to /tmp.                            | Change directory to /tmp using following command:<br><br><b># cd /tmp</b>  |
| 8.<br><input type="checkbox"/>  | <b>MPS A:</b> Extract parse9Dig script file from rpm.              | Extract desired file parse9Dig from rpm:<br><br># rpm2cpio <TKLCepap rpm extracted in step 6>   cpio -idmv <parse9Dig><br><br>As follows:<br><b># rpm2cpio TKLCepap-163.0.8-16.3.0.0.0_163.8.0.x86_64.rpm   cpio -idmv ./usr/TKLC/epap/config/parse9Dig</b><br><br><pre>[root@Natal-A tmp]# rpm2cpio TKLCepap-163.0.8-16.3.0.0.0_163.8.0.x86_64.rpm   cpio -idmv ./usr/TKLC/epap/config/parse9Dig ./usr/TKLC/epap/config/parse9Dig 318312 blocks</pre> |
| 9.<br><input type="checkbox"/>  | <b>MPS A:</b> Copy extracted parse9Dig at desired path.            | Copy extracted parse9Dig file at path: <b>/usr/TKLC/epap/config</b><br>Use following path:<br><br><b># cp /tmp/usr/TKLC/epap/config/parse9Dig /usr/TKLC/epap/config</b>  |
| 10.<br><input type="checkbox"/> | <b>MPS A:</b> Change the permission of parse9Dig file as required. | Change mode of file parse9Dig to 755 and ownership to epapdev:epap.<br>Use following command:<br><br><b># cd /usr/TKLC/epap/config</b><br><b># chmod 755 parse9Dig</b><br><b># chown epapdev:epap parse9Dig</b><br><br>List the file and check the permissions. It should be same as follows:<br><b># ll parse9Dig</b><br><br><pre>[root@Natal-A config]# ll parse9Dig -rwxr-xr-x 1 epapdev epap 12162 Jul  9 21:39 parse9Dig</pre>                    |

## Appendix A. 23 Get parse9Dig file from EPAP 16.3 ISO

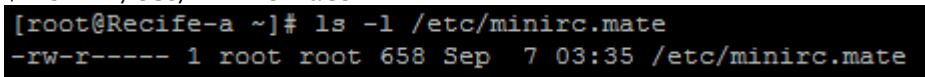
|                                     |   |   |
|-------------------------------------|---|---|
| <p>11. <input type="checkbox"/></p> | <p>MPS A: Snapshot of all commands run above to extract parse9Dig file.</p> | <p>Verify that all steps ran successfully as follows:</p> <pre>[root@Natal-A ~]# [root@Natal-A ~]# mkdir /mnt/iso [root@Natal-A ~]# [root@Natal-A ~]# mount -o loop /var/TKLC/EPAP-16.3.0.0.0_163.8.0-x86_64.iso /mnt/iso/ /var/TKLC/EPAP-16.3.0.0.0_163.8.0-x86_64.iso: No such file or directory [root@Natal-A ~]# rmdir /mnt/iso [root@Natal-A ~]# [root@Natal-A ~]# [root@Natal-A ~]# mkdir /mnt/iso [root@Natal-A ~]# [root@Natal-A ~]# mount -o loop /var/TKLC/upgrade/EPAP-16.3.0.0.0_163.8.0-x86_64.iso /mnt/iso/ [root@Natal-A ~]# [root@Natal-A ~]# cp /mnt/iso/Packages/TKLCepap-163.0.8-16.3.0.0.0_163.8.0.x86_64.rpm /tmp/ [root@Natal-A ~]# cd /tmp [root@Natal-A ~]# cd /tmp [root@Natal-A tmp]# [root@Natal-A tmp]# xpm2cpio TKLCepap-163.0.8-16.3.0.0.0_163.8.0.x86_64.rpm   cpio -idmv ./usr/TKLC/epap/config/parse9Dig 318312 blocks [root@Natal-A tmp]# [root@Natal-A tmp]# cp /tmp/usr/TKLC/epap/config/parse9Dig /usr/TKLC/epap/config [root@Natal-A tmp]# [root@Natal-A tmp]# cd /usr/TKLC/epap/config [root@Natal-A config]# chmod 755 parse9Dig [root@Natal-A config]# [root@Natal-A config]# chown epapdev:epap parse9Dig [root@Natal-A config]# [root@Natal-A config]# ll parse9Dig -rwx-r-x 1 epapdev epap 12162 Jul  9 21:39 parse9Dig [root@Natal-A config]# [root@Natal-A config]#</pre> |
| <p>12.</p>                          | <p>MPS A: Remove all temporary files from /tmp directory.</p>               | <p>Remove parse9Dig file and TKLCepap rpm from /tmp directory. Run following command on CLI:</p> <pre># rm -f /tmp/usr/TKLC/epap/config/parse9Dig # rm -f /tmp/TKLCepap-163.0.12-16.3.0.0.0_163.12.0.x86_64.rpm</pre>   |
| <p>13.</p>                          | <p>MPS A: Umount the mounted ISO.</p>                                       | <p>Umount the ISO which was mounted in step 5. Run below command:</p> <pre># umount /mnt/iso/</pre>   |
| <p>14.</p>                          | <p>MPS A: Remove ISO directory.</p>   | <p>Remove directory /mnt/iso. Run below command:</p> <pre># rmdir /mnt/iso/</pre>   |
| <p>15. <input type="checkbox"/></p> | <p>Procedure Complete</p>   | <p>Procedure is complete.</p>   |
| <p>16. <input type="checkbox"/></p> | <p>Note down the timestamp in log.</p>                                      | <p>Run the following command:</p> <pre>\$ date</pre>  |

## Procedure A.24 Procedure to add/edit the /etc/minirc.mate file

NOTE: This procedure is needed in following cases:

1. If “minicom mate” fails due to data corruption or some body deleted the file /etc/minirc.mate.  
Or,
2. If ttyS1 is not working, then edit the file /etc/minirc.mate to use ttyS3 or ttyS4.

**Appendix A. 24 Procedure to add/edit the /etc/minirc.mate file**

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure will add/edit the file /etc/minirc.mate.   |   |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |   |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>UPGRADE ASSISTANCE</u> .                    |   |
| 1.<br><input type="checkbox"/>   | <b>MPS:</b> Log on Server.  | <b>[hostname] console login: admusr<br/>password: <i>password</i></b>   |
| 2.<br><input type="checkbox"/>   | <b>MPS:</b> Switch user to root.  | <b>\$ su - root<br/>Password:</b>   |
| 3.                               | <b>MPS:</b> Verify that the file present on server.   | <p>Verify that the file /etc/minirc.mate is present on server:<br/>Run the following command:</p> <pre>\$ ls -l /etc/minirc.mate</pre>  <p>Move to step 5 if output is same as above otherwise continue to next step.</p>   |
| 4.<br><input type="checkbox"/>   | <b>MPS:</b> Create the file using vi editor.  | <p>Create the file /etc/minirc.mate using vi editor as follows:<br/><b>\$ vi /etc/minirc.mate</b></p> <p>Add following lines in file /etc/minirc.mate and save the file:</p> <pre># # minirc file generated by remoteConsole Mon Sep 10 09:53:54 2018 pr port /dev/ttyS1 pu baudrate 115200 pu bits 8 pu parity N pu stopbits 1 pu rtscts No pu xonxoff No pu minit pu mreset pu mhangup pu pname1 YUNYY pu pname2 YUNYY pu pname3 YUNYN pu pname4 NDNYY pu pname5 NDNYY pu pname6 YDNYN pu pname7 YUYNN pu pname8 NDYNN pu pname9 YUNYN pu zauto pu fselw No pu askndir No</pre> |

**Appendix A. 24 Procedure to add/edit the /etc/minirc.mate file**

|  |   |   |
|--|---|---|
| <p>5.<br/><input type="checkbox"/></p> | <p><b>MPS:</b> Edit the file /etc/minirc.mate</p> | <p><b>If ttS1 is not working then edit the file /etc/minirc.mate and update ttyS1 to ttyS2 or ttyS1 to ttyS3 and change the serial cable connectivity accordingly.</b></p> <p>In following example, we have updated the file /etc/minirc.mate and changed the port value from ttyS1 to ttyS2.</p> <p><b>\$ vi /etc/minirc.mate</b></p> <pre># # minirc file generated by remoteConsole Mon Sep 10 09:53:54 2018 pr port /dev/ttyS2 pu baudrate 115200 pu bits 8 pu parity N pu stopbits 1 pu rtscts No pu xonxoff No pu minit pu mreset pu mhangup pu pname1 YUNYY pu pname2 YUNYY pu pname3 YUNYN pu pname4 NDNYY pu pname5 NDNYY pu pname6 YDNYN pu pname7 YUYNN pu pname8 NDYNN pu pname9 YUNYN pu zauto pu fselw No pu askndir No</pre> <p><b>NOTE: In order to make this changes working we must need to change the serial cable connectivity with lsmspri and lsmssec.</b></p> <p>In following figure we have changed the serial connectivity from<br/>         ttyS0(lsmspri) &lt;-&gt; ttyS1(lsmssec) to ttyS0(lsmspri) &lt;-&gt; ttyS2(lsmssec)<br/>         and<br/>         ttyS0(lsmssec) &lt;-&gt; ttyS1(lsmspri) to ttyS0(lsmssec) &lt;-&gt; ttyS2(lsmspri)</p> |
|--|---|---|

**Appendix A. 24 Procedure to add/edit the /etc/minirc.mate file**

|                                |   |   |
|--------------------------------|---|---|
|                                |   | Here, broken line showing the old connectivity and bold line for the new connectivity.                            |
| 6.                             | <b>MPS:</b> Run “minicom mate” on the server. | Run the following command:<br><br><b>\$minicom mate</b><br><br>It should be successfully switched to mate server. |
| 7.<br><input type="checkbox"/> | <b>MPS:</b> Procedure completed               | This procedure is complete.   |
| 8.<br><input type="checkbox"/> | Note down the timestamp in log.               | Run the following command:<br><br><b>\$ date</b>  |

**Procedure A.25 Configure the Auto Backup**

This procedure configures auto backup for PDB and RTDB on all the Non-PROVs that are homed to the PDBA.

EPAP software on all Non-PROVs homed to the PDBA should be running for successful auto RTDB backup on the Non-PROVs.

**Appendix A.25 Configure the Auto Backup**

|                       |    |   |
|-----------------------|----|---|
| S<br>T<br>E<br>P<br># | 1A | This procedure enables the auto backup feature for the Provisioning Database. |
|                       |    | Estimated time: 5 minutes   |

|    |   |  |
|----|---|--|
| 1. | <input type="checkbox"/> <p><b>MPS 1A:</b><br/>Navigate to the main Maintenance menu selection and select “Automatic PDB/RTDB Backup”.</p> <p>Specify the required fields and press the Submit Schedule button.</p> | <p><b>Note:</b> Kindly note that the passwords having certain special characters like \$, @, # are not allowed while configuring passwords for automatic backup transfer to remote server.</p> |
| 2. | <input type="checkbox"/> <p>Note down the timestamp in log.</p>   | <p>Run the following command:</p> <p><b>\$ date</b></p>  |

**This procedure is complete.**

## Procedure A.26 STOP ACTIVE PDBA AND VERIFY REPL LOGS

This procedure shall be followed on Active PDBA (2A). If the REPL log is not empty, part of the procedure will be followed in Standby PDBA (1A) as well.

### Appendix A.26 Procedure to add/edit the /etc/minirc.mate file

| P # |   |   |
|-----|---|---|
| 1.  | <input type="checkbox"/> <p><b>MPS 2A:</b><br/>Stop the Customer provisioning in to the active PDB.</p> | <p><b>NOTE:</b><br/>Contact customer provisioning and verify provisioning has been deactivated.</p> |
| 2.  | <input type="checkbox"/> <p><b>MPS 2A:</b> Log on Server.</p>   | <pre>[hostname] consolelogin: admusr password: password</pre>                                       |
| 3.  | <input type="checkbox"/> <p><b>MPS 2A:</b> Switch user to root.</p>                                     | <pre>\$ su - root Password:</pre>   |
| 4.  | <input type="checkbox"/> <p><b>MPS 2A:</b> Stop the PDBA process</p>                                    | <pre># service Pdba stop ~~ /etc/init.d/Pdba stop ~~ PDBA application stopped.</pre>                |

|                                |   |   |
|--------------------------------|---|---|
| 5.<br><input type="checkbox"/> | <b>MPS 2A:</b> Stop the EPAP process  | <b># service Epap stop</b><br>~~ /etc/init.d/Epap stop ~~<br>EPAP application stopped.  |
| 6.<br><input type="checkbox"/> | <b>MPS 2A:</b> Clear the REPL logs  | <b>\$ mysql -u root -p -S/var/TKLC/epap/db/pdb/mysql.sock &lt;/b&gt;<br/><b>/usr/TKLC/epap/config/pdb_repl.sql</b><br/>Enter password: &lt;password&gt;</b>   |
| 7.<br><input type="checkbox"/> | <b>MPS 2A:</b> Login to the mysql database and verify that there are no updates to be sent to the standby PDB.<br><br>If any REPL log exists, follow steps 8 to 12. Otherwise jump to step 13 | <b>\$ mysql -u root -p -S/var/TKLC/epap/db/pdb/mysql.sock pdb</b><br>Enter password: <password><br>On the MySQL prompt, Run the following commands:<br><b>mysql&gt; select * from replLog;</b> Empty set (0.00 sec)<br><b>mysql&gt; select * from requests;</b><br>Empty set (0.00 sec)<br><b>mysql&gt; quit</b><br>Bye |
| 8.<br><input type="checkbox"/> | <b>MPS 1A:</b> Start the PDBA and EPAP at the Standby site (1A)   | <b># service Pdba start</b> ~~<br>/etc/init.d/Pdba start<br>~~ PDBA application started.  |

|                                |  |   |
|--------------------------------|--|---|
|                                |  | <b># service Epap start</b> ~~<br>/etc/init.d/Epap start<br>~~ EPAP application started.<br>Note : Skip the following step on Standalone PDB<br><b># ssh mate "service Epap start"</b><br>~~ /etc/init.d/Epap start ~~<br>EPAP application started.   |
| 9.<br><input type="checkbox"/> | <b>MPS 2A:</b><br>Start the PDBA at the Active site (2A) | <b># service Pdba start</b> ~~<br>/etc/init.d/Pdba start<br>~~ PDBA application started.<br><b># service Epap start</b> ~~<br>/etc/init.d/Epap start<br>~~ EPAP application started.<br>Note : Skip the following step on Standalone PDB<br><b># ssh mate "service Epap start"</b><br>~~ /etc/init.d/Epap start ~~<br>EPAP application started. |

|                                 |  |  |
|---------------------------------|--|--|
| 10.<br><input type="checkbox"/> | <p><b>MPS 2A:</b></p> <p>Wait a minute for the updates to sync between Active and Standby PDBA.</p> <p>Check in intervals of 1 minute till all updates are sent from Active PDBA to Standby PDBA.</p> <p>Move to next step ONLY after checking that output of replLog and requests tables shows "Empty set".</p> | <pre>\$ mysql -u root -p -S/var/TKLC/epap/db/pdb/mysql.sock pdb Enter password: &lt;MySQL_root_password&gt; On the MySQL prompt, Run the following commands: mysql&gt; select * from replLog; Empty set (0.00 sec) mysql&gt; select * from requests; Empty set (0.00 sec) mysql&gt; quit Bye</pre> |
| 11.<br><input type="checkbox"/> | <p><b>MPS 2A:</b></p> <p>Stop the PDBA and EPAP processes.</p>   | <pre># service Pdba stop ~~ /etc/init.d/Pdba stop ~~ PDBA application stopped.  # service Epap stop</pre>  |
|                                 |  | <pre>~~ /etc/init.d/Epap stop ~~ EPAP application stopped.</pre>   |
| 12.<br><input type="checkbox"/> | <p><b>MPS 1A:</b></p> <p>Stop the PDBA and EPAP processes.</p>   | <pre># service Pdba stop ~~ /etc/init.d/Pdba stop ~~ PDBA application stopped.  # service Epap stop ~~ /etc/init.d/Epap stop ~~ EPAP application stopped.</pre>  |
| 13.<br><input type="checkbox"/> | <p><b>MPS 2A:</b></p> <p>Exit as root user</p>   | <pre>\$ exit</pre>   |
| 14.<br><input type="checkbox"/> | <p>Note down the timestamp in log.</p>   | <pre>Run the following command:  \$ date</pre>   |

### Procedure A.27 PDB Backup before upgrade

|   |  |
|---|--|
| S | This procedure will perform pdb Backup |
|---|--|

|                               |   |   |
|-------------------------------|---|---|
| T<br>E<br>P<br>#              | <p><b>Estimated time of completion: 5 minutes.</b></p> <p>Check off (☐) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b>.</p> <p><b>PROCEDURE APPLICABLE TO: Standalone PDB, Mixed EPAP</b></p> |   |
| 1<br><input type="checkbox"/> | <p><b>Login to MPS A via root user</b></p>  | <p>login: &lt;root_user&gt;<br/>Password: &lt;admin_password&gt;</p>  |
| 2<br><input type="checkbox"/> | <p><b>Stop PDB software</b></p>   | <p>[root@Salta-a logs]# service Pdba stop<br/>~~ /etc/init.d/Pdba stop ~~<br/>PDBA application stopped.</p> <p>Change the directory to free, to generate the mysqldump in free directory.<br/># cd /var/TKLC/epap/free</p>  |
| 3<br><input type="checkbox"/> | <p><b>Generate mysqldump of PDB database:</b><br/>Run the following command to create mysql dump of PDB to restore later after the upgrade.</p> <p>Note:<br/>mysqldump_filename can be anything</p>   | <p>[root@Manaus-A free]# mysqldump -uroot -p&lt;MySQL_root_password&gt; pdb -S /var/TKLC/epap/db/pdb/mysql.sock &gt; mysqldump_filename.sql &amp;</p> <p><b>Example:</b><br/>[root@Devloan01 ~]# mysqldump -uroot -p&lt;MySQL_root_password&gt; pdb -S /var/TKLC/epap/db/pdb/mysql.sock &gt; mysqldump_Devloan01_01133307182024.sql&amp;<br/>[1] 29910<br/>[root@Devloan01 ~]# mysqldump: [Warning] Using a password on the command line interface can be insecure.</p>   |
| 4<br><input type="checkbox"/> | <p><b>MPS X: Transfer file to remote machine</b></p>  | <p>Using SFTP (secure-FTP), transfer the file to a remote, customer-provided computer. Enter "yes" when prompted if you want to continue to connect.</p> <p>\$ cd /var/TKLC/epap/free<br/>\$ sftp admusr@10.75.141.58<br/>Connecting to 10.75.141.58...<br/>FIPS integrity verification test failed.<br/>The authenticity of host '10.75.141.58 (10.75.141.58)' can't be established.<br/>RSA key fingerprint is 16:cf:0f:bb:cd:c3:45:8c:bf:5f:02:2b:96:4f:d1:61.<br/>Are you sure you want to continue connecting (yes/no)? yes</p> <p>Warning: Permanently added '10.75.141.58' (RSA) to the list of known hosts.<br/>admusr@10.75.141.58's password:</p> |

|   |   |   |
|---|---|---|
|   |   | <pre>sftp&gt; put mysqldump_Recife_01133307182024.sql Uploading mysqldump_Recife_01133307182024.sql to /var/TKLC/elap/free/epap_spare_card_backup/mysqldump_Recife_011333071820 24.sql mysqldump_Recife_01133307182024.sql 100% 30GB 76.0MB/s 06:45 sftp&gt; bye</pre> <p>If there is no customer provided remote computer for backups, transfer the backup file to the mate using the following command:<br/> \$ sudo chmod 666 /var/TKLC/epap/free/bkp.tar.gz</p> <p>\$ su – epapdev</p> <p>\$ scp /var/TKLC/epap/free/ mysqldump_Devloan01_01133307182024.sql<br/> epapdev@remoteIP:&lt;Remote server Path&gt;</p> |
| 3 | <input type="checkbox"/> <b>This procedure is complete.</b> | <b>This procedure is complete.</b>  |

### Procedure A.28 Clear replication logs

|                       |   |                       |
|-----------------------|---|-----------------------|
| S<br>T<br>E<br>P<br># | This procedure clears the replication logs for the Standalone PDBA and Mixed EPAP   |                       |
|                       | <b>Note : Ensure the provisioning activity has been halted before proceeding</b>  |                       |
|                       | <b>Estimated time of completion: 5 minutes.</b>   |                       |
|                       | Check off ( <input type="checkbox"/> ) each step as it is completed. Boxes have been provided for this purpose under each step number.<br><br>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b> .<br><br><b>PROCEDURE APPLICABLE TO: Dual PDB and Dual Mixed EPAP</b> |                       |
| 1                     | <input type="checkbox"/> <b>Active PDB :</b><br>Switch from root to the epapdev user.<br><br><b>Note:</b> Ensure the provisioning activity has been   | <b># su - epapdev</b> |

|   |   |   |
|---|---|---|
|   | halted before proceeding.   |   |
| 2 | <p><b>Active PDB:</b></p> <p><input type="checkbox"/> Login to the mysql database and determine the size of replLogs.</p> <p>Enter password once requested.</p> | <pre>\$ mysql -u root -p -S/var/TKLC/epap/db/pdb/mysql.sock pdb</pre> <p>Enter password: &lt;password&gt;</p> <p>Reading table information for completion of table column names You can turn off this feature to get a quicker startup with -A</p> <p>Welcome to the MySQL monitor. Commands end with ; or \g.<br/>Your MySQL connection id is 108<br/>Server version: 5.0.37-community-log MySQL Community Edition (GPL)<br/>Type 'help;' or '\h' for help. Type '\c' to clear the buffer.</p> <pre>mysql&gt; select count(*) from replLog; +-----+   count(*)   +-----+   100000   +-----+ 1 row in set (0.11 sec) mysql&gt; select count(*) from requests; +-----+   count(*)   +-----+   100000   +-----+ 1 row in set (0.06 sec) mysql&gt; quit Bye \$</pre> |
| 3 | <p><b>Active PDB :</b></p> <p><input type="checkbox"/> Clear the REPL logs.</p> <p>Enter password once requested.</p>   | <pre>\$ mysql -u root -p -S/var/TKLC/epap/db/pdb/mysql.sock &lt; /usr/TKLC/epap/config/pdb_repl.sql</pre> <p>Enter password: &lt;password&gt;</p>   |
| 4 | <p><b>Active PDB :</b></p> <p><input type="checkbox"/> Login to the mysql database and verify that there are no updates to be sent to the standby PDB.</p>      | <pre>\$ mysql -u root -p -S/var/TKLC/epap/db/pdb/mysql.sock pdb</pre> <p>Enter password: &lt;password&gt;</p> <p>Reading table information for completion of table column names You can turn off this feature to get a quicker startup with -A</p> <p>Welcome to the MySQL monitor. Commands end with ; or \g.</p>  |

|   |   |  |
|---|---|--|
|   | <p>Enter password once requested.</p> <p>If any REPL logs exist, restart the PDBA application and allow them to replicate to the Standby PDB, then repeat this procedure.</p> | <p>Your MySQL connection id is 108<br/>Server version: 5.0.37-community-log MySQL Community Edition (GPL)<br/>Type 'help;' or '\h' for help. Type '\c' to clear the buffer.</p> <pre>mysql&gt; select count(*) from replLog; Empty set (0.00 sec)  mysql&gt; select count(*) from requests; Empty set (0.00 sec)  mysql&gt; quit Bye</pre> |
| 5 | <p><input type="checkbox"/> Active PDB EPAP A: Switch from epapdev to root user.</p>  | <pre>\$ exit</pre>   |
| 6 | <p><input type="checkbox"/> Standby PDB</p>   | <p>Repeat all above steps on standby PDB as well.</p>  |
| 7 | <p><input type="checkbox"/> This procedure is complete.</p>   | <p>This procedure is complete.</p>   |

### Procedure A.29 Remove remote PDBA IP

|                       |  |   |
|-----------------------|--|---|
| S<br>T<br>E<br>P<br># | This procedure deletes the remote PDBA IP Address  |   |
|                       | <b>Ensure the provisioning activity has been halted before proceeding!</b>   |   |
|                       | <b>Estimated time of completion: 5 minutes.</b>  |   |
|                       | <p>Check off (<input type="checkbox"/>) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b>.</p> <p>PROCEDURE APPLICABLE TO: Standalone PDBA and Mixed EPAP</p> |   |
| 1                     | <p><input type="checkbox"/> Login to root user first and then switch to epapconfig and select option 8</p> <p><b>Note: Ensure the provisioning activity has been halted before proceeding</b></p>  | <p>Switch to root user</p> <pre>[epapdev@Cres-a ~]\$ su - Password: &lt;root password&gt;  [root@Cres-a ~]# su - epapconfig</pre> |

|                                   |  |   |
|-----------------------------------|--|---|
|                                   |  | <pre> /-----EPAP Configuration Menu-----\   1   Display Configuration                    2   Configure Network Interfaces Menu        3   Set Time Zone                           4   Exchange Secure Shell Keys              5   Change Password                         6   Platform Menu                           7   Configure NTP Server                     8   PDB Configuration Menu                  9   Security                                10   SNMP Configuration                      11   Configure Alarm Feed                    12   Configure Query Server                  13   Configure Query Server Alarm Feed       14   Configure SNMP Agent Community          15   DB Architecture Menu                     e   Exit                                  \-----/  Enter Choice: 8 </pre> |
| <p>2</p> <input type="checkbox"/> | <p>Select option 1</p>                                       | <pre> /-----Configure PDB Menu-----\   1   Configure PDB Network                    2   Configure PDB Capacity                   3   Create PDB                               4   Change Auto DB Recovery State            e   Exit                                  \-----/  Enter Choice: 1 </pre>  |
| <p>3</p> <input type="checkbox"/> | <p>Remove the remote PDBA IP by entering <b>0.0.0.0</b>.</p> | <pre> /-----PDB Network Configuration Menu-----\   1   IPv4 Configuration                       2   IPv6 Configuration                       e   Exit                                  \-----/  Enter Choice: 1  Verifying connectivity with mate... This MPS is configured to be provisionable. The EPAP local PDBA IPv4 address is currently set to 10.75.141.29 The EPAP local PDBA IPv6 address is currently set to 0000:0000:0000:0000:0000:0000:0000:0000 EPAP software and PDBA are running. Stop them? [N]: Y The EPAP local PDBA IPv4 Address is 10.75.141.29. EPAP remote PDBA IP Address [0.0.0.0]: 0.0.0.0 </pre>   |

|  |  |   |
|--|--|---|
| <p>4</p> <p><input type="checkbox"/></p> | <p>The EPAP Configuration Menu is displayed. Enter choice e, Exit.</p> | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration         --- -----    2   Configure Network Interfaces Menu    --- -----    3   Set Time Zone                 --- -----    4   Exchange Secure Shell Keys     --- -----    5   Change Password               --- -----    6   Platform Menu                 --- -----    7   Configure NTP Server           --- -----    8   PDB Configuration Menu        --- -----    9   Security                       --- -----   10   SNMP Configuration             --- -----   11   Configure Alarm Feed           --- -----   12   Configure Query Server         --- -----   13   Configure Query Server Alarm Feed    --- -----   14   Configure SNMP Agent Community    --- -----   15   DB Architecture Menu           --- -----    e   Exit                          \-----/ </pre> <p>Enter Choice: e</p> |
| <p>5</p> <p><input type="checkbox"/></p> | <p>Restart EPAP and Pdba services.</p>                                 | <p>Please note EPAP and PDBA services will get stopped when removing the remote PDBA IP.</p> <p>Services can be restarted using below command.</p> <pre> \$ systemctl start Epap \$ systemctl start Pdba </pre>   |

|   |  |                             |
|---|--|-----------------------------|
| 6 | <input type="checkbox"/> This procedure is complete. | This procedure is complete. |
|---|--|-----------------------------|

### Procedure A.30 Reset RTDB Homing Policy to remote PDBA

In case of Prov upgrade (Mixed EPAP/PDBonly) with Live provisioning, the homing of all Non-Prov sites needs to be taken care of as below:

- a. Non-Prov sites: Change the RTDB homing to “Configure Active RTDB Homing” and select the active PDBA site, if RTDB homing is anything other than active PDBA. Refer to [Procedure A.30](#).
- b. Prov Sites: On Both PDBA sites, RTDB homing policy should be set to its local PDBA. Refer to [Procedure A.44](#).

**Note: Change the RTDB homing on all Non-Provs. Stop the EPAP Softwares on both EPAP A and B servers.**

- c. There is no need to stop provisioning.
- d. After the RTDB Homing changes, EPAP software will be started and within a few minutes, RTDBs will catch up with the PDBA level.
- e. The only side effect of this activity is that Eagle will not get live updates for around 10 minutes. As soon as EPAP software is started after the procedure, the provisioning data will be transmitted to the Eagle immediately.

|                       |   |
|-----------------------|---|
| S<br>T<br>E<br>P<br># | This procedure resets the RTDB homing policy for the Non-Prov Nodes   |
|                       | <b>Estimated time of completion: 5 minutes.</b>   |
|                       | Check off (☐) each step as it is completed. Boxes have been provided for this purpose under each step number.   |
|                       | SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b> . |
|                       | <b>PROCEDURE APPLICABLE TO: Non-Provisionable EPAPs</b>   |

|                               |   |   |
|-------------------------------|---|---|
|                               |   |   |
| 1<br><input type="checkbox"/> | MPS A:<br>Switch to<br>epapconfig<br>menu | <code># su - epapconfig</code><br>Warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm<br>line 904. |

2 Select option  
8 from  
epapconfig  
menu

```
 /-----EPAP Configuration Menu-----\  
 /-----\  
 | 1 | Display Configuration |  
 |-----|  
 | 2 | Configure Network Interfaces Menu |  
 |-----|  
 | 3 | Set Time Zone |  
 |-----|  
 | 4 | Exchange Secure Shell Keys |  
 |-----|  
 | 5 | Change Password |  
 |-----|  
 | 6 | Platform Menu |  
 |-----|  
 | 7 | Configure NTP Server |  
 |-----|  
 | 8 | PDB Configuration Menu |  
 |-----|  
 | 9 | Security |  
 |-----|  
 | 10 | SNMP Configuration |  
 |-----|  
 | 11 | Configure Alarm Feed |  
 |-----|  
 | 12 | Configure SNMP Agent Community |  
 |-----|  
 | 13 | Mate Disaster Recovery |  
 |-----|  
 | 14 | DB Architecture Menu |  
 |-----|  
 | e | Exit |  
 \-----\  
 /
```

Enter Choice: 8

|                                   |   |   |
|-----------------------------------|---|---|
| <p>3</p> <input type="checkbox"/> | <p>Select option 2 to enter RTDB homing menu</p>                                    | <pre> /-----Configure PDB Menu-----\ /-----\   1   Configure PDB Network    ----- -----\   2   RTDB Homing Menu    ----- -----\   3   Change Auto DB Recovery State    ----- -----\   e   Exit   \-----\  Enter Choice: 2 </pre>  |
| <p>4</p> <input type="checkbox"/> | <p>Read the Note in the beginning of the section and decide your homing policy.</p> | <p>For Non-Prov Nodes:</p> <pre> /-----RTDB Homing Menu-----\ /-----\   1   Configure Specific RTDB Homing    ----- -----\   2   Configure Active RTDB Homing    ----- -----\   3   Configure Standby RTDB Homing    ----- -----\   e   Exit   \-----\  Enter Choice: 2  In the event that the Active PDB is unavailable, should updates be allowed to the RTDBs from the Standby PDBA? [Y]: N  Caution: If this option is selected, the Standby PDB will not provision the RTDBs at this site in the event that the Active PDB is not available.  Are you sure you want to disallow updates to the RTDBs from the Standby PDB? [N]: Y  The RTDBs will home to the Active and will not allow updates from the Standby PDB.  Press return to continue...^[] </pre> |
| <p>5</p> <input type="checkbox"/> | <p>MPS A and MPS B:</p>   | <p>Start Epap and Pdba software to reflect the changes. Use the following command to start Epap:</p>  |

|   |   |   |
|---|---|---|
|   | <p>Start Epap software.</p>                                 | <p>For EPAP 16.3.1/16.4.1, Run the following command to start PDBA and EPAP Softwares:</p> <pre>\$ service Epap Start ~~ /etc/init.d/Epap start ~~ "EPAP_RELEASE" is set to "0.617" EPAP application start Successful.</pre> <pre>\$ service Pdba start ~~ /etc/init.d/Pdba start ~~ PDBA application start Successful.</pre> <p>For EPAP 18.0, Run the following command to start PDBA and EPAP Softwares:</p> <pre>\$ systemctl start Epap</pre> <pre>\$ systemctl start Pdba</pre> |
| 6 | <p><input type="checkbox"/> This procedure is complete.</p> | <p>This procedure is complete.</p>  |

### Procedure A.31 Change MySql engine schema

**Note:** This procedure should not be implemented if migrating from 17.0.0.x/18.0.0.x.

|                                  |   |                           |
|----------------------------------|---|---------------------------|
| <p>S<br/>T<br/>E<br/>P<br/>#</p> | <p>This procedure will Change MySql engine schema.</p> <hr/> <p><b>Estimated time of completion: 5 minutes.</b></p> <p>Check off ( <input type="checkbox"/> ) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b>.</p> <p><b>PROCEDURE APPLICABLE TO: Standalone PDB, Mixed and Non-Provisionable EPAP</b></p> |                           |
| 1                                | <p><input type="checkbox"/> Login to epap via epapdev user on server being upgraded.</p> <p>Note: For Mixed or Non-Prov EPAP Run this procedure needs</p>   | <pre># su - epapdev</pre> |

|   |   |   |
|---|---|---|
|   | to be run on MPS A & B  |   |
| 2 | <input type="checkbox"/> Navigate to path<br><input type="checkbox"/> /var/TKLC/epap/free   | <pre>[epapdev@Manaus-a /]# cd /var/TKLC/epap/free/ [epapdev@Manaus-a free]#</pre>   |
| 3 | <input type="checkbox"/> Change the EuiDB engine using alter_Table.pl script.<br><br>Note: Download the alter_table.pl script from OSDC to free directory on EPAP and change its permission to 755. Also change its ownership to epapdev:epap | <pre>[epapdev@Manaus-A free]\$ chown epapdev:epap alter_table.pl [epapdev@Manaus-A free]\$ chmod 755 alter_table.pl [epapdev@Manaus-A free]\$ ./alter_Table.pl Success.</pre>   |
| 4 | <input type="checkbox"/> Check the update by logging into EuiDB:  | <pre>[epapdev@Manaus-A free]\$ mysql -uroot -p&lt;MySQL_root_password&gt;  mysql&gt; use EuiDB; Reading table information for completion of table and column names You can turn off this feature to get a quicker startup with -A  mysql&gt; show table status\G; ***** 1. row *****       Name: alarmInfo       Engine: InnoDB       Version: 10</pre> |
| 5 | <b>This procedure is complete.</b>  | <b>This procedure is complete.</b>  |

## Procedure A.32 Post upgrade EuiDB database restore

|                                       |   |   |
|---------------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b>      | <p>This procedure verifies that EuiDB is restored successfully</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>Migration ASSISTANCE</u>.</b></p> |   |
| <b>1.</b><br><input type="checkbox"/> | Login to EPAP server via epapdev user   | <pre>console login: epapdev password: &lt;password&gt;</pre>  |
| <b>2.</b>                             | Change the Euidb backup file permission to 644.   | <pre>[epapdev@Manaus-A ~]\$ chmod 644 npdbBackup_Manus-A_20220718183527.sql.gz</pre>  |
| <b>3.</b><br><input type="checkbox"/> | Restore EuiDB Database  | <pre>[epapdev@Manaus-A ~]\$ /usr/TKLC/epap/bin/restore_npdb.pl /var/TKLC/epap/free/npdbBackup_Manus-A_20220718183527.sql.gz Restoring up the NPDB... NPDB Restored up Successfully. [epapdev@Manaus-A ~]\$</pre>  |
| <b>4.</b><br><input type="checkbox"/> | Update HTTP/HTTPS variable in EuiDB   | <p>Set HTTPS_ENABLED to Yes and HTTP_ENABLED to No as HTTPS is enabled after full upgrade by default. If the user wants to change the configuration, they can do it through GUI after completing the full upgrade:</p> <p>Run the following command:</p> <pre>\$ uiEdit HTTPS_ENABLED Yes \$ uiEdit HTTP_ENABLED No</pre>   |
| <b>5.</b><br><input type="checkbox"/> | Disable Watchers, if enabled.   | <p>If watchers are enabled, disable them.</p> <p>Use the below command to find the user for which watchers are enabled.</p> <pre>\$ mysql -uroot -p -e "select loginid from uiuser where debugAllowed=1" EuiDB</pre> <p><b>example:</b></p> <pre>\$ mysql -uroot -p -e "select loginid from uiuser where debugAllowed=1" EuiDB Enter password: +-----+   loginid   +-----+   epapall     uiadmin   +-----+</pre> <p>If the above output is blank, then the watcher is already disabled. The rest of the commands in this step can be skipped. Move on to the next step.</p> |

|                                |                    |   |
|--------------------------------|--------------------|---|
|                                |                    | <p>If you get user/users as the output for the above command, it means that the watcher is enabled for those users. Disable the watcher for each user by using the below commands one by one.</p> <p><b>\$ setDebug &lt;user&gt; 0</b></p> <p><b>example:</b><br/> \$ setDebug epapall 0<br/> changing debug from "1" to "0".<br/> \$ setDebug uiadmin 0<br/> changing debug from "1" to "0".</p> <p>Verify if watchers are disabled.</p> <p><b>[epapdev@Cusco-a bin]\$ mysql -uroot -p -e "select loginid from uiuser where debugAllowed=1" EuiDB</b><br/> <b>Enter password:</b></p> <p>There will be no users in the output now.</p> |
| 6.<br><input type="checkbox"/> | Procedure Complete | This procedure is complete.   |

### Procedure A.33 Post upgrade PDB database restore

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure verifies that PDB is restored successfully   |   |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |   |
|                                  | <b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR <u>Migration ASSISTANCE</u>.</b>            |   |
|                                  | 1.<br><input type="checkbox"/>  | Log in to EPAP server via root user   |
| 2.<br><input type="checkbox"/>   | If upgrading from EPAP 17.0.x or 17.1.x to EPAP 18.x, perform this step. Else, continue from step 3.          | Perform <a href="#">Procedure A.51</a> to restore the PDB database.<br>If Procedure A.51 is performed, this procedure (A.33) ends here. |
| 3.<br><input type="checkbox"/>   | Change the permission of mysqldump file to 666. Run the command.  | # chmod 666<br>mysqldump_Recife_01133307182024.sql  |

|  |   |  |
|--|---|--|
|  |   |  |
| <p>4.<br/><input type="checkbox"/></p> | <p>Run the following command to restore myqldump.</p>   | <p>To monitor time as well as progress while restoring the db please use the below command only. This is supported only for EPAP version 17.0.0.5.0 and beyond:</p> <pre># pv mysqldump_backupfile.sql   mysql -uroot -p &lt;MySQL_root_password&gt; pdb -S /var/TKLC/epap/db/pdb/mysql.sock &amp;&amp; echo "Restore complete"</pre> <p>In case you don't want to monitor the progress use the following:</p> <pre># mysql -uroot -p&lt;MySQL_root_password&gt; pdb -S /var/TKLC/epap/db/pdb/mysql.sock &lt; mysqldump_backupfile.sql &amp;</pre> <p>Example:</p> <pre>[root@Recife-A free]# mysql -uroot -p &lt;MySQL_root_password&gt; pdb -S /var/TKLC/epap/db/pdb/mysql.sock &lt; mysqldump_Recife_01133307182024.sql &amp; [1] 853397</pre> <p>To run PDB Restore_Monitor.h script, follow the below steps. This is supported till EPAP version 17.0.0.4.0.</p> <ol style="list-style-type: none"> <li>1. Download the Restore_Monitor.zip provided with the build.</li> <li>2. Copy the zip in free, unzip the folder and set the permissions. <pre>\$ cd /var/TKLC/epap/free \$ unzip Restore_Monitor.zip \$ chmod 777 Restore_Monitor.sh</pre> </li> <li>3. Run the script in background mode. <pre>\$ ./Restore_Monitor.sh &amp;</pre> </li> <li>4. This script will log the progress in the file /var/TKLC/epap/free/Restore_Monitor.log .</li> </ol> |
| <p>5.<br/><input type="checkbox"/></p> | <p>Run the following commands to add the lsblset parameter in dn_bl and dnB_bl tables in pdb.</p> <p><b>Note: This step is applicable only in case user</b></p> | <p>The below commands will add lsblset column in dn_bl and dnB_bl table of PDB database.</p> <pre># mysql -u root -p pdb -S /var/TKLC/epap/db/pdb/mysql.sock -e 'ALTER TABLE dn_bl ADD lsblset int' # mysql -u root -p pdb -S /var/TKLC/epap/db/pdb/mysql.sock -e 'ALTER TABLE dnB_bl ADD lsblset int'</pre>   |

|  |   |
|--|---|
| <p><b>is migrating from 16.3 release regardless of DB architecture</b></p> | <p><b>Example:</b><br/> <pre>[root@Devloan01 ~]# mysql -u root -p pdb -S /var/TKLC/epap/db/pdb/mysql.sock -e 'ALTER TABLE dn_bl ADD lsblset int'</pre> Enter password:<br/> <pre>[root@Devloan01 ~]# mysql -u root -p pdb -S /var/TKLC/epap/db/pdb/mysql.sock -e 'ALTER TABLE dnB_bl ADD lsblset int'</pre> Enter password:<br/> <pre>[root@Devloan01 ~]#</pre></p> |
|--|---|

**Note:** If one site is already upgraded to EPAP 18.0, then follow Appendix A.43 to restore the PDB.

### Procedure A.34 Add Remote PDBA IP Address

|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure adds remote PDBA IP address   |  |
|                                  | <p style="text-align: center;"><b>Note: Ensure the provisioning activity has been halted before proceeding.</b></p> <p><b>Estimated time of completion: 5 minutes.</b></p> <p>Check off (☐) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b>.</p> <p><b>PROCEDURE APPLICABLE TO: Standalone PDB and Mixed EPAP</b></p> |  |
| <b>1</b><br>☐                    | <b>Login to epapconfig on PDB server being upgraded and select option 8</b>  | Warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904. |

|                                   |  |   |
|-----------------------------------|--|---|
|                                   |  | <pre> /-----EPAP Configuration Menu-----\   1   Display Configuration              2   Configure Network Interfaces Menu     3   Set Time Zone                      4   Exchange Secure Shell Keys         5   Change Password                    6   Platform Menu                      7   Configure NTP Server               8   PDB Configuration Menu             9   Security                          10   SNMP Configuration                11   Configure Alarm Feed              12   Configure Query Server            13   Configure Query Server Alarm Feed    14   Configure SNMP Agent Community    15   DB Architecture Menu              e   Exit                            \-----/  Enter Choice: 8 </pre> |
| <p>2</p> <input type="checkbox"/> | <p>Select option 1</p>   | <pre> /-----Configure PDB Menu-----\   1   Configure PDB Network              2   Configure PDB Capacity             3   Create PDB                         4   Change Auto DB Recovery State     e   Exit                            \-----/  Enter Choice: 1 </pre>   |
| <p>3</p> <input type="checkbox"/> | <p>Add the remote PDBA IP by entering &lt;Remote PDBA IP&gt;</p> | <pre> MPS Side A: hostname: Salta-a hostid: 4b0a4a8d Platform Version: 6.1.4-7.8.1.0.0_89.13.0 Software Version: EPAP 170.0.1-17.0.0.0.0_170.1.0 Fri Jul 22 08:06:26 EDT 2022  /-----PDB Network Configuration Menu-\ /-----\   1   IPv4 Configuration             --- -----    2   IPv6 Configuration             --- -----    e   Exit                          \-----/ </pre>  |

|   |   |  |
|---|---|--|
|   |   | <p>Enter Choice: 1</p> <p>This MPS is configured to be provisionable. The EPAP local PDBA IPv4 address is currently set to 10.75.141.74</p> <p>The EPAP local PDBA IPv6 address is currently set to 0000:0000:0000:0000:0000:0000:0000:0000</p> <p>EPAP software and PDBA are running. Stop them? [N]: Y</p> <p>The EPAP local PDBA IPv4 Address is 10.75.141.74.</p> <p>EPAP remote PDBA IP Address [0.0.0.0]: 10.75.141.75</p> |
|   | <b>Remote PDB</b>   | Repeat all the above steps on the remote PDB.  |
| 5 | <input type="checkbox"/> <b>This procedure is complete.</b> | <b>This procedure is complete.</b>   |

### Procedure A.35 Keys exchange between active PDB and standby PDB

|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure exchanges keys between active and remote PDB.   |  |
|                                  | <b>Estimated time of completion: 5 minutes.</b>  |  |
|                                  | Check off ( <input type="checkbox"/> ) each step as it is completed. Boxes have been provided for this purpose under each step number.   |  |
|                                  | <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b>.</p> <p><b>PROCEDURE APPLICABLE TO: Dual Mixed or Dual PDBonly server</b></p> |  |
| 1                                | <input type="checkbox"/> For key exchange between Standby PDB on 18.x release and the Active pdb on release 18.x/17.0.x/17.1.x   | Follow step 2 to end   |
| 2                                | <input type="checkbox"/> MPS A: Login to PDB EPAP server which is newly made on release 18.x as the user "epapdev"   | If not already logged-in, then login at PDB EPAP:<br>console<br>login: epapdev<br>password:  |
| 3                                | <input type="checkbox"/> MPS A: The EPAP Configuration Menu is displayed. Select choice 8,PDB Configure Menu.  | <b>Switch to root user.,</b><br><b>\$su –</b><br><root Password><br><b>\$su - epapconfig</b> |

|   |   |  |
|---|---|--|
|   |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration         --- -----    2   Configure Network Interfaces Menu    --- -----    3   Set Time Zone                 --- -----    4   Exchange Secure Shell Keys     --- -----    5   Change Password               --- -----    6   Platform Menu                 --- -----    7   Configure NTP Server           --- -----    8   PDB Configuration Menu         --- -----    9   Security                       --- -----   10   SNMP Configuration             --- -----   11   Configure Alarm Feed           --- -----   12   Configure Query Server         --- -----   13   Configure Query Server Alarm Feed    --- -----   14   Configure SNMP Agent Community    --- -----   15   DB Architecture Menu           --- -----    e   Exit                          \-----/  Enter Choice: 8 </pre> |
| 4 | <input type="checkbox"/> MPS A: The Configure PDB Menu is displayed. Select choice 1. | <pre> /-----Configure PDB Menu-----\ /-----\   1   Configure PDB Network         --- -----    2   Create PDB                     --- -----    3   Change Auto DB Recovery State    --- -----    e   Exit                          </pre>   |

|   |  |  |
|---|--|--|
|   |  | <pre> \-----/ Enter Choice: 1 </pre>   |
| 5 | <p>MPS A: The PDB Network Configuration Menu is displayed. Select choice 1.</p> <p>Provide remote PDBA IP address.</p> | <pre> MPS Side A: hostname: Tacna-B-PDBOnly hostid: 4b0a218d Platform Version: 7.0.1-8.5.0.0.0_100.8.1 Software Version: EPAP 170.0.6-17.0.0.0.0_170.6.0 Mon Nov 14 18:11:45 EST 2022  /-----PDB Network Configuration Menu-\ /-----\   1   IPv4 Configuration    --- -----    2   IPv6 Configuration    --- -----    e   Exit   \-----/  Enter Choice: 1  This MPS is configured to be provisionable. The EPAP local PDBA IPv4 address is currently set to 10.75.141.33 The EPAP local PDBA IPv6 address is currently set to 0000:0000:0000:0000:0000:0000:0000:0000 The EPAP local PDBA IPv4 Address is 10.75.141.33. EPAP remote PDBA IP Address [10.75.141.32.]: &lt;press enter&gt; The server does not know of 10.75.141.32 Will just exchange host keys for the name given! Password of epapdev: The server does not know of 10.75.141.32. Will just exchange host keys for the name given! ssh is working correctly. Attempting to give PDB privileges to: 10.75.141.32 PDB privileges have been set for 10.75.141.32 </pre> |
| 6 | <p>Exit from epapconfig menu</p>   | <pre> MPS Side A: hostname: Tacna-A-PDBOnly hostid: 4b0a218d Platform Version: 7.0.1-8.5.0.0.0_100.8.1 Software Version: EPAP 170.0.6-17.0.0.0.0_170.6.0 Mon Nov 14 18:12:34 EST 2022  /-----PDB Network Configuration Menu-\ /-----\   1   IPv4 Configuration    --- -----    2   IPv6 Configuration    --- -----  </pre>   |

|   |   |   |
|---|---|---|
|   |   | <pre>   e   Exit            \-----/  Enter Choice: e </pre>   |
| 7 | MPS A: Login to Active PDB EPAP server which is on release 17.0.x/17.1.x/18.x as the user "epapdev" | <pre> If not already logged-in, then login at PDB EPAP: console login: epapdev password: </pre>   |
| 8 | MPS A: The EPAP Configuration Menu is displayed. Select choice 8,PDB Configure Menu.                | <pre> <b>Switch to root user.,</b> <b>\$su -</b> &lt;root Password&gt; <b>\$su - epapconfig</b>  /----EPAP Configuration Menu-----\ /-----\   1   Display Configuration             --- -----    2   Configure Network Interfaces Menu    --- -----    3   Set Time Zone                     --- -----    4   Exchange Secure Shell Keys        --- -----    5   Change Password                   --- -----    6   Platform Menu                     --- -----    7   Configure NTP Server               --- -----    8   PDB Configuration Menu            --- -----    9   Security                          --- -----   10   SNMP Configuration                 --- -----   11   Configure Alarm Feed               --- -----   12   Configure Query Server             --- -----   13   Configure Query Server Alarm Feed    --- -----   14   Configure SNMP Agent Community     --- -----   15   DB Architecture Menu              </pre> |

|    |  |  |
|----|--|--|
|    |  | <pre> ---- -----    e   Exit        \-----/  Enter Choice: 8</pre>   |
| 9  | MPS A: The Configure PDB Menu is displayed. Select choice 1.   | <pre>/----Configure PDB Menu-----\ /-----\   1   Configure PDB Network       ---- -----    2   Create PDB                   ---- -----    3   Change Auto DB Recovery State    ---- -----    e   Exit                        \-----/  Enter Choice: 1</pre>  |
| 10 | <p>MPS A: The PDB Network Configuration Menu is displayed. Select choice 1.</p> <p>Provide remote PDBA IP address.</p> | <pre>MPS Side A: hostname: Tacna-A-PDBonly hostid: 4b0a218d Platform Version: 7.0.1-8.5.0.0.0_100.8.1 Software Version: EPAP 170.0.6-17.0.0.0.0_170.6.0 Mon Nov 14 18:11:45 EST 2022  /----PDB Network Configuration Menu-\ /-----\   1   IPv4 Configuration           ---- -----    2   IPv6 Configuration           ---- -----    e   Exit                        \-----/  Enter Choice: 1  This MPS is configured to be provisionable. The EPAP local PDBA IPv4 address is currently set to 10.75.141.32 The EPAP local PDBA IPv6 address is currently set to 0000:0000:0000:0000:0000:0000:0000:0000 The EPAP local PDBA IPv4 Address is 10.75.141.32. EPAP remote PDBA IP Address [0.0.0.0]: 10.75.141.33 The server does not know of 10.75.141.33 Will just exchange host keys for the name given! Password of epapdev: The server does not know of 10.75.141.33. Will just exchange host keys for the name given! ssh is working correctly.</pre> |

|    |  |   |
|----|--|---|
|    |  | Attempting to give PDB privileges to: 10.75.141.33<br>PDB privileges have been set for 10.75.141.33   |
| 11 | Exit from epapconfig menu                                | MPS Side A: hostname: Tacna-B-PDBonly hostid: 4b0a218d<br>Platform Version: 7.0.1-8.5.0.0.0_100.8.1<br>Software Version: EPAP 170.0.6-17.0.0.0.0_170.6.0<br>Mon Nov 14 18:12:34 EST 2022<br><br>/-----PDB Network Configuration Menu-----\<br>/-----\<br>  1   IPv4 Configuration  <br> --- ----- <br>  2   IPv6 Configuration  <br> --- ----- <br>  e   Exit  <br>\-----/<br><br>Enter Choice: e |
| 12 | MPS A: Start Epap and Pdba software on Active PDBA Site. | Start Epap and Pdba software to reflect the changes.<br>For EPAP 18.0/17.0.x/17.1.x, Run the following command to start PDBA and EPAP Softwares:<br><br>\$ systemctl start Epap<br><br>\$ systemctl start Pdba  |
| 13 | <input type="checkbox"/> This procedure is complete.     | <b>This procedure is complete.</b>  |

### Procedure A.36: RTDB restore after Upgrade

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure provides instructions to restore RTDB from a backup file.                                      |   |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |   |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.                                    |   |
| <input type="checkbox"/>         | 1. <b>EPAP A:</b> Log in to the server as the user "epapdev".   | <b>&lt;hostname&gt; console login: epapdev<br/>password: &lt;password&gt;</b> |
| <input type="checkbox"/>         | 2. <b>EPAP A:</b> Switch to root user.  | <b>[epapdev@Ithaca-a ~]\$ su -<br/><br/>Password: &lt;password&gt;</b>        |

|   |  |  |
|---|--|--|
| <p>3.</p> <p><input type="checkbox"/></p> | <p><b>EPAP A:</b> Start EPAP Services</p>  | <pre>\$ systemctl start Epap ~~ /etc/init.d/Epap start ~~</pre> <p>"EPAP_RELEASE" is set to "0.617"<br/>EPAP application start Successful.</p>   |
| <p>4.</p> <p><input type="checkbox"/></p> | <p><b>EPAP A:</b> Log in to the web GUI as user "uiadmin".</p>   |  |
| <p>5.</p> <p><input type="checkbox"/></p> | <p><b>EPAP A:</b> Stop Software.</p> <p>On the menu, click Process Control-&gt;Stop Software.</p> <p>Click "Stop EPAP Software" Button</p> | <p>The screenshot shows the Oracle EPAP web GUI interface. On the left is a navigation menu with categories like 'Process Control', 'Maintenance', 'RTDB', 'User Administration', etc. The 'Stop EPAP Software' button is highlighted in the 'Process Control' section. The main content area displays a dialog box titled 'Stop EPAP Software' with a warning icon and text: 'CAUTION: This action will stop all EPAP software processes, and will prevent the selected EPAP from updating the RTDB until the EPAP software is re-started (by executing the Start Software menu item)'. There is a checkbox for 'Check if you want the software to automatically start on reboot.' Below this is a 'PDBA' section with two checkboxes: 'Check if you want to stop the PDBA software along with the EPAP software.' and 'Check if you want the PDBA software to automatically start on reboot.' A 'Stop EPAP Software' button is at the bottom of the dialog. Below the dialog, a green checkmark and the text 'SUCCESS: The EPAP Software has been stopped.' are visible. The footer shows the date 'Tue January 06 2015 10:27:03 EST' and 'Copyright © 2000, 2014, Oracle and/or its affiliates. All rights reserved.'</p> |

6.

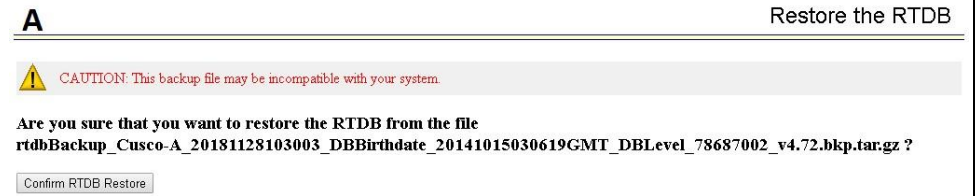
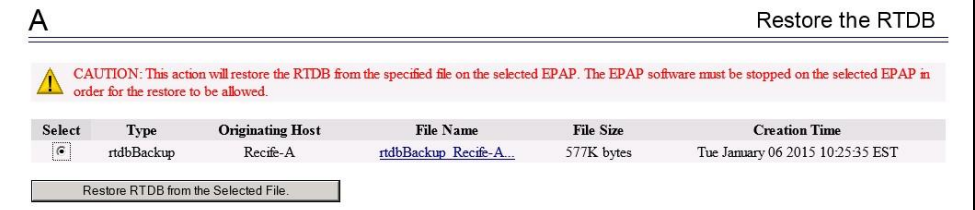
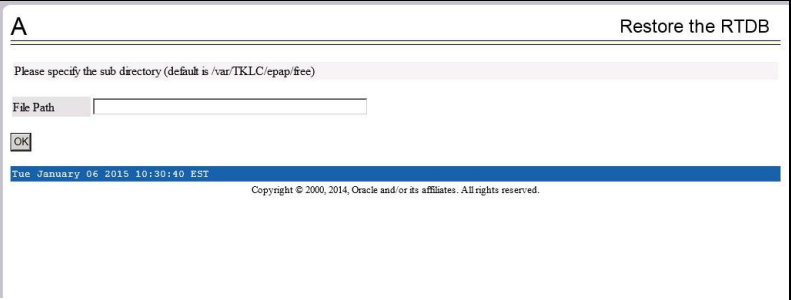
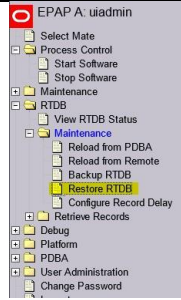
**EPAP A: Restore RTDB.**



On the menu, click RTDB->Maintenance>Restore RTDB.

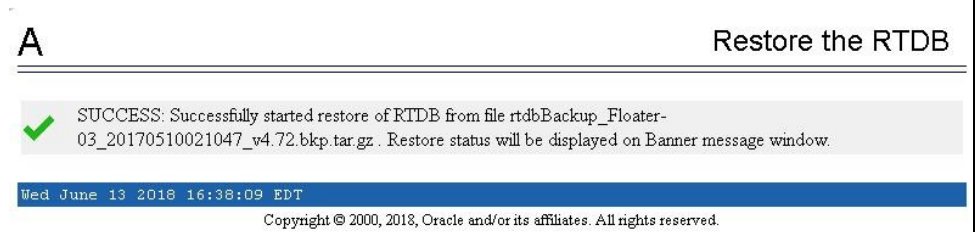
Select the backup file, then click “Restore RTDB from the Selected File” Button.

Click “Confirm RTDB Restore” Button



**NOTE:** Caution message regarding “incompatible file” is displayed in above snapshot as the backup file is taken on RTDB version 4 and is being restored on RTDB version 5.

**Restore successfully started:**



7.



**EPAP A:** Make EPAP down.

An IM alarm should be observed with informational message on EPAP GUI confirming that restore RTDB is in progress.

An IM alarm should be observed with informational message on EPAP GUI confirming that restore RTDB completed successfully.

Click "Confirm RTDB Restore" Button

Confirming that Restore RTDB is in progress:

**A**

## Informational Messages

### Informational Messages

Restore RTDB in progress

Wed June 13 2018 16:39:09 EDT

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Confirming that Restore RTDB is completed successfully:

**A**

## Informational Messages

### Informational Messages

Restore RTDB completed successfully

Fri June 15 2018 00:30:27 EDT

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|                                    |  |  |
|------------------------------------|--|--|
| <p>8. <input type="checkbox"/></p> | <p>On EPAP GUI, confirming that RTDB Conversion is completed successfully.</p> | <p>This step is performed only to support EAGLE release 46.7.0.0.0 (On the setup where DB Architecture is eXtreme).</p> <p><b>A</b> <b>Informational Messages</b></p> <hr/> <p style="text-align: center;"><b>Informational Messages</b><br/>RTDB Conversion in progress</p> <p style="text-align: center;">Wed June 13 2018 16:55:42 EDT</p> <p style="text-align: center;">Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p> <p><b>A</b> <b>Informational Messages</b></p> <hr/> <p style="text-align: center;"><b>Informational Messages</b><br/>RTDB conversion completed successfully</p> <p style="text-align: center;">Fri June 15 2018 00:37:57 EDT</p> <p style="text-align: center;">Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p> |
| <p>9. <input type="checkbox"/></p> | <p>Procedure complete.</p>   | <p>Return to the procedure that you came here from.</p>  |

## Procedure A.37: Resolve the false accept upgrade alarm situation

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure is used to resolve the false accept upgrade alarm situation from the system.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</b></p> |   |
| 1.<br><input type="checkbox"/>   | <p><b>Blankout the /etc/motd file</b></p>  | <pre>&gt; /etc/motd</pre>   |
| 2.<br><input type="checkbox"/>   | <p>Add an entry "export POST_UPGRADE_ACTION=ACCEPT" in the upgrade info file.</p>  | <pre>echo "export POST_UPGRADE_ACTION=ACCEPT" &gt;&gt; /var/TKLC/log/upgrade/upgrade.info</pre> |

|   |  |  |
|---|--|--|
| <p>3.</p> <p><input type="checkbox"/></p> | <p>Clear the false alarm "TKSPLATMI33"</p> | <p>You will see the following alarm in alarmStatus.</p> <p>a. alarmMgr --alarmStatus<br/> [One output example below:]<br/> SEQ: 7 UPTIME: 356 BIRTH: 1524100682 TYPE: SET</p> <p>ALARM:<br/> TKSPLATMI33 tpdServerUpgradePendingAccept 1.3.6.1.4.1.323.5.3.18.3.1.3.33 3253<br/> 2 Processing Error Configuration Error</p> <p>b. To clear the alarm, run the following command:<br/> alarmMgr --clear TKSPLATMI33</p> |
|---|--|--|

### Procedure A.38 Conversion from mixed EPAP to StandalonePDB+Non-Prov EPAP

**Note:** A new card would be needed for this conversion. The conversion can be done through various way where one of them is described below.

Assuming, there is a mixed EPAP on 16.3.1/16.4.1 release.

Run the below mentioned steps to perform this conversion

On Mixed EPAP:

- a. Perform Full Upgrade from existing release EPAP 16.3.1 or 16.4.1 to target release of EPAP 17.0

Refer to [section 3.4.1](#), Run Procedures 1, 2, 3, 4, 14, A.31, 15, 16.

- b. Convert Prov (mixed EPAP) to Non-Prov EPAP by fresh installing the setup as Non-Prov Node

**Note:** Option to convert Mixed setup to Non-Prov setup via epapconfig menu is obsolete.

Refer to [section 3.4.1](#), Run procedure A.13, 5, 6, 7, 8, 9, 4, 20, 13, A.32, A.36, A.11, 25, 22.

On PDBOnly (fresh installation on new card):

- c. Install EPAP 17.0 ISO on new card.

Refer to [section 3.3.2](#) to perform installation.

- d. Restore PDB backup

Refer to [section 3.4.4](#), Run procedures A.33, 27.

Attach this PDBOnly with Non-Prov EPAP (converted in step b) and any Non-Prov EPAP connected with Mixed setup

### Procedure A.39 Take snapshot of uiEdit parameters

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure provides instructions to restore RTDB from a backup file.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p> |   |
| 1.<br><input type="checkbox"/>   | <p><b>EPAP A:</b> Log in to the EPAP A server as user "root" and take a snapshot of EuiDB variables.</p>   | <pre>[root@Quito-a ~]# uiEdit "DB_ARCHITECTURE" is set to "COMPACT" "LNP_ENABLED" is set to "FALSE" "NETWORK_CONFIGURATION_TYPE" is set to "SINGLE" "EPAP_A_GS_BANNER_PORT" is set to "8473" "PDBA_STATS_ENABLED" is set to "OFF" "EPAP_DATA_SPLIT" is set to "OFF" "max_passwd_age" is set to "180" "new_user_default_groups" is set to "readonly" "max_concurrent_user_logins" is set to "1" "max_concurrent_logins" is set to "20" "PROVISIONABLE_MPS" is set to "YES" "PDBA_LOCAL_NAME_V6" is set to "0000:0000:0000:0000:0000:0000:0000" "passwd_expiry_warn_days" is set to "7" "HTTP_ENABLED" is set to "No" "SNMP_ALARM_FEED" is set to "ON" "session_idle_timeout" is set to "10" "EPAP_A_STANDBY" is set to "FALSE" "EPAP_BINLOGS_THRESHOLD" is set to "80" "SLOG_CAPACITY_ALARMS_ENABLED" is set to "TRUE" "EPAP_A_NAME" is set to "Quito-a" "MAX_RECORD_DELAY" is set to "15"</pre> |

|  |  |  |
|--|--|--|
|  |  | <p>"PDBA_IMSI_PREFIX" is set to ""</p> <p>"EPAP_A_MAINT_DEBUG_LEVEL" is set to "0"</p> <p>"SELF_HEAL_DN_FEATURE" is set to "OFF"</p> <p>"logon_msg" is set to "NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution."</p> <p>"EPAP_QS_ALARMS_ENABLED" is set to "ON"</p> <p>"PDB_RTDB_SYNC" is set to "NO"</p> <p>"PROVISIONING_NETWORK_NETMASK" is set to "255.255.255.0"</p> <p>"EPAP_A_SLOG" is set to "YES"</p> <p>"PDBA_ERROR_LOG_DEBUG_LEVEL" is set to "20"</p> <p>"EPAP_A_SIMPLEX_MODE" is set to "FALSE"</p> <p>"EPAP_A_PROV_NETWORK_IP_ADDRESS" is set to "10.75.141.73"</p> <p>"EPAP_IP_VERSION" is set to "IPv4"</p> <p>"SYSTEM_NUMBER" is set to "ES06032023"</p> <p>"EPAP_STATUS_A" is set to "NONE"</p> <p>"euidb_version" is set to "3"</p> <p>"PDB_CAP_LIMIT_ENABLED" is set to "OFF"</p> <p>"EPAP_A_HTTP_PORT" is set to "80"</p> <p>"UI_IP_AUTHORIZATION_ENABLED" is set to "FALSE"</p> <p>"PDBA_MAX_COMMAND_RECORDS" is set to "1000000"</p> <p>"EPAP_A_SUEXEC_HTTP_PORT" is set to "8001"</p> <p>"apache_403_error_message" is set to "NOTICE: This workstation is not authorized to access the GUI."</p> <p>"min_passwd_len" is set to "8"</p> <p>"max_account_inactivity" is set to "0"</p> <p>"EAGLE_ALARM_FEED" is set to "OFF"</p> <p>"PDBA_GPORT_INSTALLED" is set to "FALSE"</p> <p>"EPAP_RELEASE" is set to "0.0.0"</p> <p>"PDBA_REMOTE_NAME" is set to "0.0.0.0"</p> <p>"PDBA_DEBUG_LOG_DEBUG_LEVEL" is set to "20"</p> <p>"EPAP_A_SUEXEC_HTTPS_PORT" is set to "8002"</p> <p>"EPAP_QS_THRESHOLD" is set to "200"</p> <p>"EPAP_A_HSAUDIT" is set to "ON"</p> <p>"EPAP_A_HTTPS_PORT" is set to "443"</p> <p>"PDBA_DN_PREFIX" is set to ""</p> <p>"EPAP_A_PROV_NETWORK_IP_ADDRESS_V6" is set to ""</p> <p>"PDBA_GFLEX_INSTALLED" is set to "FALSE"</p> <p>"PROVISIONING_NETWORK_PREFIX_V6" is set to ""</p> <p>"passwd_reuse_limit" is set to "5"</p> <p>"PDBI_PORT" is set to "5873"</p> <p>"apache_403_error_message_default" is set to "NOTICE: This workstation is not authorized to access the GUI."</p> <p>"PDBA_INP_INSTALLED" is set to "FALSE"</p> <p>"HTTPS_ENABLED" is set to "Yes"</p> <p>"PROVISIONING_NETWORK_DEFAULT_ROUTER" is set to "10.75.141.1"</p> <p>"RTDB_HOMING_POLICY" is set to "PDBA_LOCAL_NAME"</p> |
|--|--|--|

|    |   |   |
|----|---|---|
|    |   | <p>"PDBA_MAX_COMMAND_DELAY" is set to "-1"</p> <p>"PDBA_LOCAL_NAME" is set to "10.75.141.73"</p> <p>"PDBA_COMMAND_LOG_DEBUG_LEVEL" is set to "20"</p> <p>"max_failed_logins" is set to "3"</p> <p>"PDB_SUB_CAPACITY" is set to "528000000"</p> <p>[root@Quito-a ~]#</p> |
| 2. | <input type="checkbox"/> Copy the uiEdit command output in notepad and save on your machine or backup server for future reference | uiEdit command output is saved for fututr reference.  |
| 3. | <input type="checkbox"/> <b>This procedure is complete.</b>   | <b>This procedure is complete.</b>  |

### Procedure A.40 Save the EPAP 16.3/16.4 additional configurations

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure provides instructions to restore RTDB from a backup file.                                      |   |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |   |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.                                    |   |
| 1.                               | <input type="checkbox"/> Login to epapconfig menu and Enter choice 7, Configure NTP Server Menu               | EPAP configuration menu for PDBonly server: |



|                                    |   |   |
|------------------------------------|---|---|
|                                    |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    10   SNMP Configuration    -----    11   Configure Alarm Feed    -----    12   Configure SNMP Agent Community    -----    13   Mate Disaster Recovery    -----    14   DB Architecture Menu    -----    e   Exit   \-----/ </pre> |
| <p>2. <input type="checkbox"/></p> | <p>MPS A: The EPAP Configure NTP Server Menu is displayed. Enter choice 1, Display External NTP Server and save the details for later use</p> | <pre> /-----EPAP Configure NTP Server Menu-\ /-----\   1   Display External NTP Server    -----    2   Add External NTP Server    -----    3   Remove External NTP Server    -----    e   Exit   \-----/  Enter Choice: 1  ntpserver1      10.75.124.247  Press return to continue...<input type="text"/> </pre>  |

| <p>3. Login to EPAP GUI via uiadmin user MPS 1A: Navigate to the main Maintenance menu selection and select “Automatic PDB/RTDB Backup” and note down the configuration details</p> | <p style="text-align: right;">Automatic PDB/RTDB Backup</p> <hr/> <div style="border: 1px solid #ccc; padding: 5px;"> <p>Backup Type (Select None to Cancel Backups) <span style="float: right;">Local ▾</span></p> <p>Time of the day to start the Backup <input type="text" value="04:00"/></p> <p>Frequency <span style="float: right;">1 Day ▾</span></p> <p>File Path (Directory only) <input type="text"/></p> <p>Select required IP version: <input checked="" type="radio"/> IPv4 <input type="radio"/> IPv6</p> <p>Remote Machine IP Address (IPv4=xxx.yyy.zzz.zzz) <input type="text"/></p> <p>(IPv6=xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx) <input type="text"/></p> <p>Login Name <input type="text"/></p> <p>Password <input type="password"/></p> <p>Save the local copies in the default path <input type="radio"/> Yes <input type="radio"/> No</p> <p>Do you want to delete the old RTDB backups (Non-Provisionable only) <input checked="" type="radio"/> Yes <input type="radio"/> No</p> <p><small>Note: 1. If you select Yes, only the last three RTDB backup files will be retained.<br/>2. Automatic PDB Backup will be failed.</small></p> </div>   |                |   |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
|---|--|----------------|---|--------|---------|--|--|------|----|----------|--------|--------|---------|----------|-----|------------|-----------------------------------|--|--|----------|------|------------|-------------------------------|--|--|----------|-----|-------------|------------------------------------|--|--|----------|------|------------|-------------------------------|--|--|----------|--------|-------------|-------------------------------------|--|--|----------|--------|-------------|---|--|--|
| <p>4. <input type="checkbox"/> Navigate to the main Maintenance menu selection and select “Configure File Transfer” and note down the configuration details</p>                     | <p style="text-align: right;">Configure File Transfer</p> <hr/> <div style="border: 1px solid #ccc; padding: 5px;"> <p>Select required IP version: <input checked="" type="radio"/> IPv4 <input type="radio"/> IPv6</p> <p>Remote system IP address: <input type="text" value="10.75.141.80"/></p> <p>Remote system user name: <input type="text" value="epapdev"/></p> <p>Remote system password: <input type="password"/></p> <p>Remote system sftp location: <input type="text" value="/var/TKLC/epap/free"/></p> <p>File export to remote system: <span style="float: right;">Enabled ▾</span></p> <p style="text-align: center;"><input type="button" value="Submit data"/></p> <p style="font-size: small; color: blue;">Tue March 07 2023 04:12:29 EST</p> <p style="font-size: x-small; text-align: center;">Copyright © 2000, 2019, Oracle and/or its affiliates. All rights reserved.</p> </div>   |                |   |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
| <p>5. Navigate to the main Maintenance menu selection and select “EPAP Schedule task” and note down the configuration details</p>   | <p style="text-align: right;">Schedule EPAP Tasks</p> <hr/> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #e6f2ff;"> <th colspan="6">Existing Tasks</th> </tr> <tr style="background-color: #e6f2ff;"> <th>Type</th> <th>ID</th> <th>Schedule</th> <th>Action</th> <th>Params</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>EXAPCORE</td> <td>PIC</td> <td>minutely,5</td> <td>/usr/TKLC/epap/bin/pdbilmporCheck</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>EFTP</td> <td>minutely,5</td> <td>/usr/TKLC/epap/bin/eirSftp.pl</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>PBL</td> <td>minutely,10</td> <td>/usr/TKLC/app1/bin/pruneBinaryLogs</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>PDSH</td> <td>minutely,5</td> <td>/usr/TKLC/app1/bin/pdbiSsh.pl</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>MONBAN</td> <td>hourly,1,15</td> <td>/usr/TKLC/app1/bin/monitorBanner.pl</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>RTDBCS</td> <td>minutely,15</td> <td>/usr/TKLC/app1/bin/getRTDBClientStatus.pl</td> <td></td> <td></td> </tr> </tbody> </table> <hr/> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px auto; width: 80%;"> <p style="text-align: center; background-color: #e6f2ff; margin: 0;"><b>Scheduling Options</b></p> <p>Type: <input type="text"/> ID: <input type="text"/></p> <p>Action: <input type="text"/></p> <p>Params: <input type="text"/></p> <p>Repeat period: <input type="radio"/> Minutely <input type="radio"/> Hourly <input checked="" type="radio"/> Daily <input type="radio"/> Weekly <input type="radio"/> Monthly <input type="radio"/> Yearly</p> <p style="margin-left: 20px;">Every <input type="text" value="1"/> day(s) at <input type="text" value="00"/> : <input type="text" value="00"/></p> <p>Comment: <input type="text"/></p> <p style="text-align: center; margin-top: 5px;"> <input type="button" value="Add"/> <input type="button" value="Modify"/> <input type="button" value="Delete"/> </p> </div> | Existing Tasks |   |        |         |  |  | Type | ID | Schedule | Action | Params | Comment | EXAPCORE | PIC | minutely,5 | /usr/TKLC/epap/bin/pdbilmporCheck |  |  | EXAPCORE | EFTP | minutely,5 | /usr/TKLC/epap/bin/eirSftp.pl |  |  | EXAPCORE | PBL | minutely,10 | /usr/TKLC/app1/bin/pruneBinaryLogs |  |  | EXAPCORE | PDSH | minutely,5 | /usr/TKLC/app1/bin/pdbiSsh.pl |  |  | EXAPCORE | MONBAN | hourly,1,15 | /usr/TKLC/app1/bin/monitorBanner.pl |  |  | EXAPCORE | RTDBCS | minutely,15 | /usr/TKLC/app1/bin/getRTDBClientStatus.pl |  |  |
| Existing Tasks  |  |                |   |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
| Type  | ID   | Schedule       | Action                                    | Params | Comment |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
| EXAPCORE  | PIC  | minutely,5     | /usr/TKLC/epap/bin/pdbilmporCheck         |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
| EXAPCORE  | EFTP   | minutely,5     | /usr/TKLC/epap/bin/eirSftp.pl             |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
| EXAPCORE  | PBL  | minutely,10    | /usr/TKLC/app1/bin/pruneBinaryLogs        |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
| EXAPCORE  | PDSH   | minutely,5     | /usr/TKLC/app1/bin/pdbiSsh.pl             |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
| EXAPCORE  | MONBAN   | hourly,1,15    | /usr/TKLC/app1/bin/monitorBanner.pl       |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |
| EXAPCORE  | RTDBCS   | minutely,15    | /usr/TKLC/app1/bin/getRTDBClientStatus.pl |        |         |  |  |      |    |          |        |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                    |  |  |          |      |            |                               |  |  |          |        |             |                                     |  |  |          |        |             |   |  |  |

|                                |   |   |               |    |                |     |
|--------------------------------|---|---|---------------|----|----------------|-----|
| 6.                             | Navigate to the user administration menu and select “HTTP(s) Support”, click view configuration and note down the configuration details | <p style="text-align: center;"><b>A</b> <span style="float: right;">View HTTP(S) Configuration</span></p> <hr/> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">HTTP Enabled:</td> <td style="padding: 2px;">No</td> </tr> <tr> <td style="padding: 2px;">HTTPS Enabled:</td> <td style="padding: 2px;">Yes</td> </tr> </table> <p style="font-size: small; margin-top: 5px;">Tue March 07 2023 04:15:58 EST</p> <p style="font-size: x-small; text-align: center; margin-top: 5px;">Copyright © 2000, 2019, Oracle and/or its affiliates. All rights reserved.</p> | HTTP Enabled: | No | HTTPS Enabled: | Yes |
| HTTP Enabled:                  | No  |   |               |    |                |     |
| HTTPS Enabled:                 | Yes   |   |               |    |                |     |
| 7.<br><input type="checkbox"/> | <b>This procedure is complete.</b>  | <b>This procedure is complete.</b>  |               |    |                |     |

### Procedure A.41 Reconfigure Additional EPAP configurations

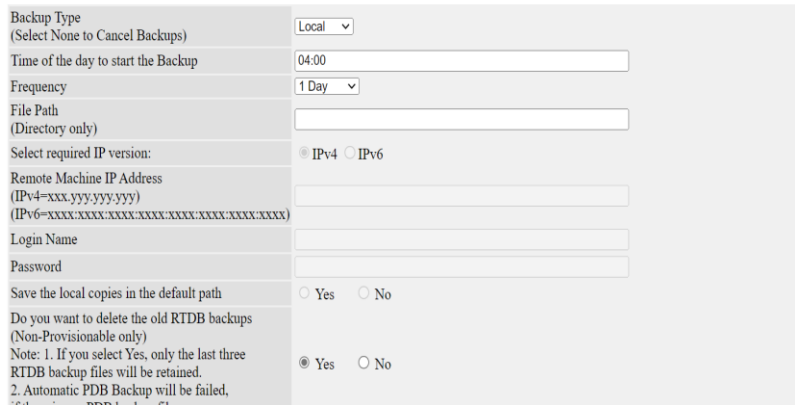
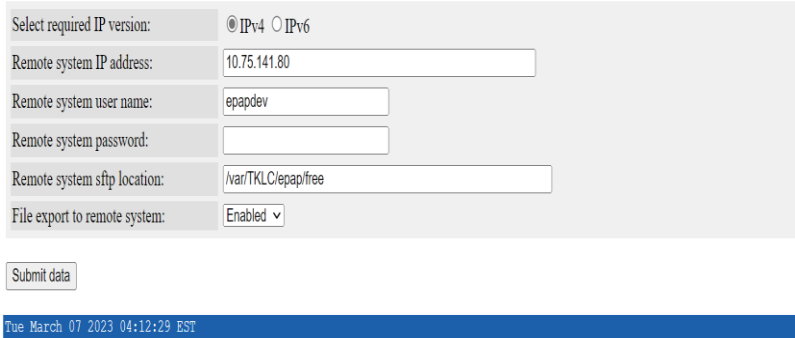
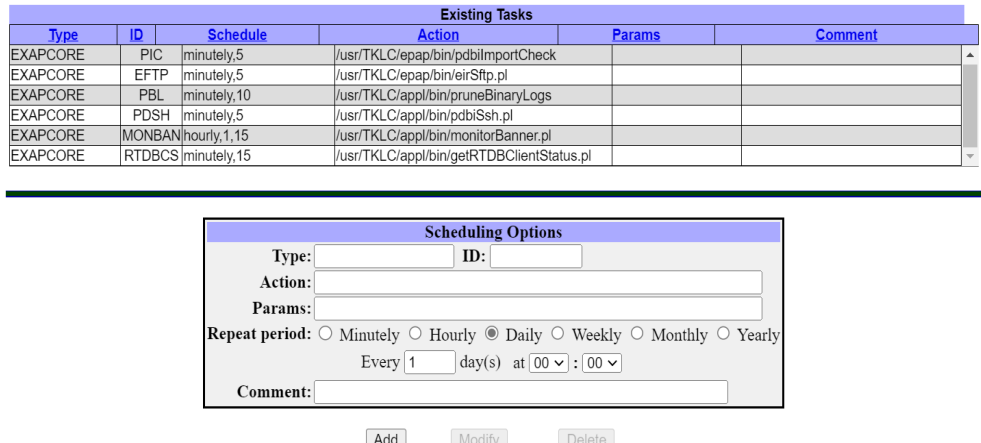
|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure provides instructions to restore RTDB from a backup file.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</b></p> |   |
| 1.<br><input type="checkbox"/>   | Login to epapconfig menu and Enter choice 7, Configure NTP Server Menu  | EPAP configuration menu for PDBonly server: |

```
/-----EPAP Configuration Menu-----\  
/-----\  
| 1 | Display Configuration |  
|-----|  
| 2 | Configure Network Interfaces Menu |  
|-----|  
| 3 | Set Time Zone |  
|-----|  
| 4 | Exchange Secure Shell Keys |  
|-----|  
| 5 | Change Password |  
|-----|  
| 6 | Platform Menu |  
|-----|  
| 7 | Configure NTP Server |  
|-----|  
| 8 | PDB Configuration Menu |  
|-----|  
| 9 | Security |  
|-----|  
| 10 | SNMP Configuration |  
|-----|  
| 11 | Configure Alarm Feed |  
|-----|  
| 12 | Configure Query Server |  
|-----|  
| 13 | Configure Query Server Alarm Feed |  
|-----|  
| 14 | Configure SNMP Agent Community |  
|-----|  
| 15 | DB Architecture Menu |  
|-----|  
| e | Exit |  
\-----/
```

Enter Choice:

EPAP configuration menu for Mixed EPAP:

|  |   |   |
|--|---|---|
|  |   | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    10   SNMP Configuration    -----    11   Configure Alarm Feed    -----    12   Configure SNMP Agent Community    -----    13   Mate Disaster Recovery    -----    14   DB Architecture Menu    -----    e   Exit   \-----/ </pre> |
| <p>2.<br/><input type="checkbox"/></p> | <p>MPS A: The EPAP Configure NTP Server Menu is displayed. Enter choice 2, Add External NTP Server</p> <p>Refer to <a href="#">Procedure A.40</a> step 2 for NTP configuration before Migration</p> | <pre> /-----Add External NTP Server Menu-\ /-----\   1   IPv4 Configuration    -----    2   IPv6 Configuration    -----    e   Exit   \-----/ </pre> <p>Enter Choice: 1</p> <p>Are you sure you wish to add new NTP Server? [N]: Y<br/>NTP Server IP Address: 10.75.124.247</p>   |

| <p>3. Login to EPAP GUI via uiadmin user MPS 1A: Navigate to the main Maintenance menu selection and select “Automatic PDB/RTDB Backup” and configure the Automatic Pdb-RTDB backup</p> <p>Refer to <a href="#">Procedure A.40</a> step 3 for backup configuration before Migration</p> | <p><b>A</b> Automatic PDB/RTDB Backup</p>   |             |  |          |         |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |
|---|---|-------------|--|----------|---------|--------|---------|----------|-----|------------|-----------------------------------|--|--|----------|------|------------|-------------------------------|--|--|----------|-----|-------------|-----------------------------------|--|--|----------|------|------------|------------------------------|--|--|----------|--------|-------------|------------------------------------|--|--|----------|--------|-------------|--|--|--|
| <p>4. <input type="checkbox"/> Navigate to the main Maintenance menu selection and configure “Configure File Transfer”</p> <p>Refer to <a href="#">Procedure A.40</a> step 4 for CFT before Migration</p>   | <p><b>A</b> Configure File Transfer</p>    |             |  |          |         |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |
| <p>5. Navigate to the main Maintenance menu selection and select “EPAP Schedule task” and note down the configuration details</p> <p>Refer to <a href="#">Procedure A.40</a> step 5 for Shcedule EPAP task before Migration</p>   | <p><b>A</b> Schedule EPAP Tasks</p>  <table border="1"> <thead> <tr> <th>Type</th> <th>ID</th> <th>Schedule</th> <th>Action</th> <th>Params</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>EXAPCORE</td> <td>PIC</td> <td>minutely,5</td> <td>/usr/TKLC/epap/bin/pdbilmporCheck</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>EFTP</td> <td>minutely,5</td> <td>/usr/TKLC/epap/bin/eirSftp.pl</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>PBL</td> <td>minutely,10</td> <td>/usr/TKLC/app/bin/pruneBinaryLogs</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>PDSH</td> <td>minutely,5</td> <td>/usr/TKLC/app/bin/pdbiSsh.pl</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>MONBAN</td> <td>hourly,1,15</td> <td>/usr/TKLC/app/bin/monitorBanner.pl</td> <td></td> <td></td> </tr> <tr> <td>EXAPCORE</td> <td>RTDBCS</td> <td>minutely,15</td> <td>/usr/TKLC/app/bin/getRTDBClientStatus.pl</td> <td></td> <td></td> </tr> </tbody> </table> | Type        | ID                                       | Schedule | Action  | Params | Comment | EXAPCORE | PIC | minutely,5 | /usr/TKLC/epap/bin/pdbilmporCheck |  |  | EXAPCORE | EFTP | minutely,5 | /usr/TKLC/epap/bin/eirSftp.pl |  |  | EXAPCORE | PBL | minutely,10 | /usr/TKLC/app/bin/pruneBinaryLogs |  |  | EXAPCORE | PDSH | minutely,5 | /usr/TKLC/app/bin/pdbiSsh.pl |  |  | EXAPCORE | MONBAN | hourly,1,15 | /usr/TKLC/app/bin/monitorBanner.pl |  |  | EXAPCORE | RTDBCS | minutely,15 | /usr/TKLC/app/bin/getRTDBClientStatus.pl |  |  |
| Type  | ID  | Schedule    | Action                                   | Params   | Comment |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |
| EXAPCORE  | PIC   | minutely,5  | /usr/TKLC/epap/bin/pdbilmporCheck        |          |         |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |
| EXAPCORE  | EFTP  | minutely,5  | /usr/TKLC/epap/bin/eirSftp.pl            |          |         |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |
| EXAPCORE  | PBL   | minutely,10 | /usr/TKLC/app/bin/pruneBinaryLogs        |          |         |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |
| EXAPCORE  | PDSH  | minutely,5  | /usr/TKLC/app/bin/pdbiSsh.pl             |          |         |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |
| EXAPCORE  | MONBAN  | hourly,1,15 | /usr/TKLC/app/bin/monitorBanner.pl       |          |         |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |
| EXAPCORE  | RTDBCS  | minutely,15 | /usr/TKLC/app/bin/getRTDBClientStatus.pl |          |         |        |         |          |     |            |                                   |  |  |          |      |            |                               |  |  |          |     |             |                                   |  |  |          |      |            |                              |  |  |          |        |             |                                    |  |  |          |        |             |  |  |  |

|    |  |  |
|----|--|--|
| 6  | <p>Refer to <a href="#">Procedure A.40</a> step 6 for HTTP/HTTPS configuration, If http was enabled before the Migration then Run this step else skip this step</p> <p>Navigate to the user administration menu and select “HTTP(s) Support”, click Change configuration, disable, and enable the configuration.</p> | <div style="border: 1px solid #ccc; padding: 5px;"> <p style="text-align: right;"><b>A</b> <span style="float: right;">Change HTTP(S) Configuration</span></p> <hr/> <p>HTTP Enabled: <input type="checkbox"/></p> <p>HTTPS Enabled: <input checked="" type="checkbox"/></p> <p style="text-align: center;"><input type="button" value="Submit Changes"/></p> <p style="font-size: small; color: #0056b3;">Tue March 07 2023 05:57:50 EST</p> <p style="font-size: x-small; text-align: center;">Copyright © 2000, 2019, Oracle and/or its affiliates. All rights reserved.</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p style="text-align: right;"><b>A</b> <span style="float: right;">Change HTTP(S) Configuration</span></p> <hr/> <p><span style="color: green;">✔</span> SUCCESS: HTTP/HTTPS configuration changed successfully.</p> <p style="font-size: small; color: #0056b3;">Tue March 07 2023 05:59:09 EST</p> <p style="font-size: x-small; text-align: center;">Copyright © 2000, 2019, Oracle and/or its affiliates. All rights reserved.</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p style="text-align: right;"><b>A</b> <span style="float: right;">Change HTTP(S) Configuration</span></p> <hr/> <p>HTTP Enabled: <input checked="" type="checkbox"/></p> <p>HTTPS Enabled: <input checked="" type="checkbox"/></p> <p style="text-align: center;"><input type="button" value="Submit Changes"/></p> <p style="font-size: small; color: #0056b3;">Tue March 07 2023 06:00:51 EST</p> <p style="font-size: x-small; text-align: center;">Copyright © 2000, 2019, Oracle and/or its affiliates. All rights reserved.</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;"> <p style="text-align: right;"><b>A</b> <span style="float: right;">Change HTTP(S) Configuration</span></p> <hr/> <p><span style="color: green;">✔</span> SUCCESS: HTTP/HTTPS configuration changed successfully.</p> <p style="font-size: small; color: #0056b3;">Tue March 07 2023 05:59:09 EST</p> <p style="font-size: x-small; text-align: center;">Copyright © 2000, 2019, Oracle and/or its affiliates. All rights reserved.</p> </div> |
| 7. | <p><input type="checkbox"/> <b>This procedure is complete.</b></p>   | <p><b>This procedure is complete.</b></p>  |

### Procedure A.42 Compare EuiDB parameters

|          |   |
|----------|---|
| <b>S</b> | This procedure provides instructions to restore RTDB from a backup file.                                      |
| <b>T</b> |   |
| <b>E</b> | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. |
| <b>P</b> |   |
| <b>#</b> | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.                                    |

|                                |   |  |
|--------------------------------|---|--|
| 1.<br><input type="checkbox"/> | Compare the EuiDB parameters before and after Migration | Update the parameters missing after migration using the following command:<br><br>[root@Quito-a ~]# uiEdit <uiEdit Paramter> <Paramter Value><br>WHERE, Paramter valus can be as follows or as per the value set before Migration:<br>"ON/OFF"<br>"YES/NO"<br>"True/False"<br>"IP" |
| 2.<br><input type="checkbox"/> | <b>This procedure is complete.</b>                      | <b>This procedure is complete.</b>   |

## Procedure A.43 PDB Restore

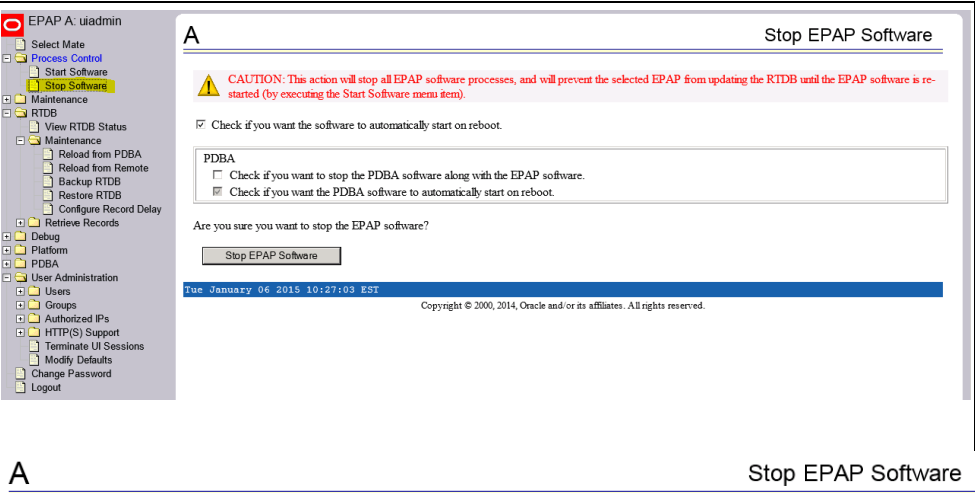
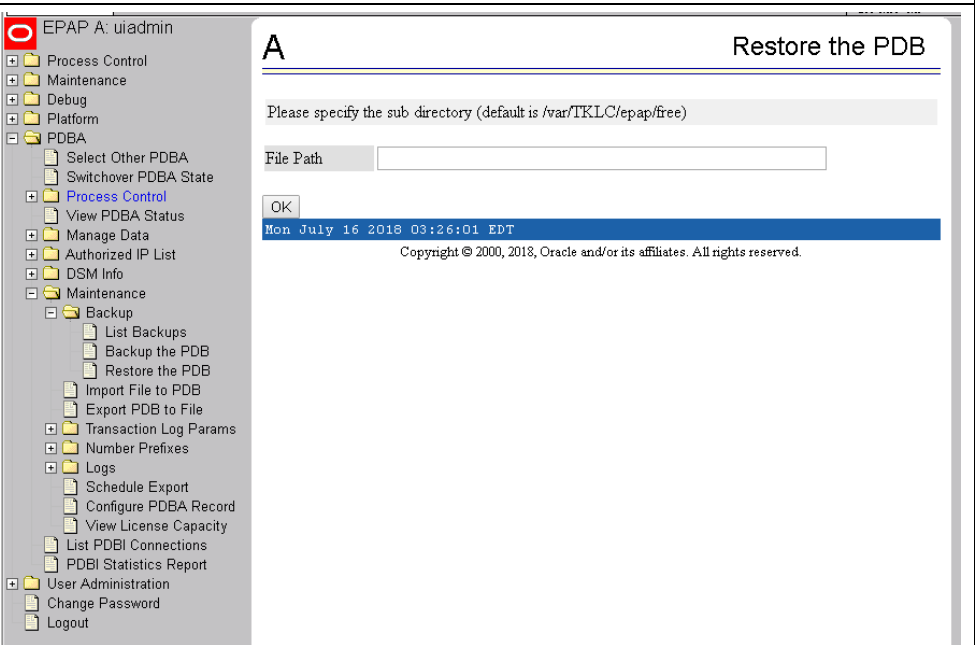
### Appendix A.43 PDB Restore

|                                  |  |   |
|----------------------------------|--|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure provides instructions to restore PDB from a backup file.  |   |
|                                  | Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.  |   |
|                                  | IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.   |   |
|                                  | 1.   | <b>MPS X:</b> Log in to the CLI as user "admusr".<br><br>If not already logged in, then login as 'admusr':<br><b>[hostname] consolelogin: admusr</b><br><b>password: password</b> |
|                                  | 2.   | <b>MPS X:</b> Switch to epapdev user.<br><br>\$ sudo su - epapdev   |
| 3.                               | <b>MPS X:</b> Backup file should be readable for epapdev user<br><br>Check mode and ownership of PDB backup tar file. It should be as follows:<br><br>[epapdev@DBExp-VM77 free]\$ ll pdbBackup_Natal-a_20180713022216_DDBirthdate_20180713055242GMT_DBLevel_18_v7.50.bkp.tar.gz<br>-rw-rw-rw- 1 epapdev epap 1182165 Jul 16 03:32 pdbBackup_Natal-a_20180713022216_DDBirthdate_20180713055242GMT_DBLevel_18_v7.50.bkp.tar.gz<br><br>If permission and ownership of tar file is not same as above then use following command:<br>Change mode of tar file:<br>\$ chmod 666 <PDB backup tar file> |   |
| 4.                               | Check following uiEdit variable:<br><br>[root@Salta-A ~]# uiEdit   grep PDBA_REMOTE_NAME<br><br>"PDBA_REMOTE_NAME" is set to "10.75.141.75"<br><br>[root@Salta-A ~]# uiEdit PDBA_REMOTE_NAME 0.0.0.0<br>"PDBA_REMOTE_NAME" is set to "0.0.0.0"   |   |



## Appendix A.43 PDB Restore

|                                    |   |  |
|------------------------------------|---|--|
|                                    | <p>"PDBA_REMOTE_NAME" is set to "10.75.141.75"</p> <p>If Remote IP is assigned, then change it to 0.0.0.0 using the following command:</p> <pre>[root@Salta-A ~]# uiEdit PDBA_REMOTE_NAME 0.0.0.0 "PDBA_REMOTE_NAME" is set to "0.0.0.0"</pre> <p>Again check the uiEdit variable value:</p> <pre>[root@Salta-A ~]# uiEdit   grep PDBA_REMOTE_NAME "PDBA_REMOTE_NAME" is set to "0.0.0.0"</pre> <p>Note: This procedure is valid in case of restoring PDBA on second PDBA node being migrated</p> | <pre>[root@Salta-A ~]# uiEdit   grep PDBA_REMOTE_NAME "PDBA_REMOTE_NAME" is set to "0.0.0.0"</pre> |
| <p>5. <input type="checkbox"/></p> | <p><b>MPS X:</b> Log in to the web GUI as user "uiadmin".</p>   | <p><b>User name:</b> <i>uiadmin</i><br/><b>Password:</b></p>                                       |

## Appendix A.43 PDB Restore

|   |  |
|---|--|
| <p>6. <input type="checkbox"/></p> <p><b>MPS X: Stop Software.</b></p> <p>On the menu, click Process Control-&gt;Stop Software.</p> <p>Click “Stop EPAP Software” Button</p>  |  <p><b>A</b> Stop EPAP Software</p> <p>CAUTION: This action will stop all EPAP software processes, and will prevent the selected EPAP from updating the RTDB until the EPAP software is restarted (by executing the Start Software menu item).</p> <p><input checked="" type="checkbox"/> Check if you want the software to automatically start on reboot.</p> <p>PDBA</p> <p><input type="checkbox"/> Check if you want to stop the PDBA software along with the EPAP software.</p> <p><input checked="" type="checkbox"/> Check if you want the PDBA software to automatically start on reboot.</p> <p>Are you sure you want to stop the EPAP software?</p> <p>Stop EPAP Software</p> <p>Tue January 06 2015 10:27:03 EST</p> <p>Copyright © 2000, 2014, Oracle and/or its affiliates. All rights reserved.</p> <hr/> <p><b>A</b> Stop EPAP Software</p> <p>✓ SUCCESS: The EPAP Software has been stopped.</p> <p>Tue January 06 2015 10:29:53 EST</p> <p>Copyright © 2000, 2014, Oracle and/or its affiliates. All rights reserved.</p> |
| <p>7. <input type="checkbox"/></p> <p><b>MPS X:Restore PDB.</b></p> <p>On the menu, click PDBA-&gt;Maintenance-&gt;Backup-&gt;Restore the PDB</p> <p>Select the backup file, then click “Restore PDB from the Selected File” Button</p> <p>Click “Confirm PDB Restore” Button</p> |  <p><b>A</b> Restore the PDB</p> <p>Please specify the sub directory (default is /var/TKL/epap/free)</p> <p>File Path <input type="text"/></p> <p>OK</p> <p>Mon July 16 2016 03:26:01 EDT</p> <p>Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p>   |

Appendix A.43 PDB Restore

|                                    |  | <p>A <span style="float: right;">Restore the PDB</span></p> <hr/> <p> <b>CAUTION:</b> Restoring the PDB will prevent the PDBA from receiving update and query requests until the restore is complete.</p> <table border="1"> <thead> <tr> <th>Select</th> <th>Type</th> <th>Originating Host</th> <th>File Name</th> <th>File Size</th> <th>Creation Time</th> </tr> </thead> <tbody> <tr> <td><input type="radio"/></td> <td>pdbBackup</td> <td>Natal-a</td> <td><a href="#">pdbBackup_Natal-a...</a></td> <td>1.2M bytes</td> <td>Fri July 13 2018 02:22:16 EDT</td> </tr> </tbody> </table> <p><input type="button" value="Restore PDB from the Selected File."/></p> <p>A <span style="float: right;">Restore the PDB</span></p> <hr/> <p>Are you sure that you want to restore the PDB from the file <b>pdbBackup_Natal-a_20180713022216_DBBirthdate_20180713055242GMT_DBLLevel_18_v7.50.bkp.tar.gz</b> ?</p> <p><input type="button" value="Confirm PDB Restore"/></p> <p>Restore successfully started:</p> <p>A <span style="float: right;">Restore the PDB</span></p> <hr/> <p> SUCCESS: Successfully started restore of PDB from /var/TKLC/app/frees/pdbBackup_Natal-a_20180713022216_DBBirthdate_20180713055242GMT_DBLLevel_18_v7.50.bkp.tar.gz. Restore status will be displayed on Banner message window.</p> | Select                               | Type       | Originating Host              | File Name | File Size | Creation Time | <input type="radio"/> | pdbBackup | Natal-a | <a href="#">pdbBackup_Natal-a...</a> | 1.2M bytes | Fri July 13 2018 02:22:16 EDT |
|------------------------------------|--|--|--------------------------------------|------------|-------------------------------|-----------|-----------|---------------|-----------------------|-----------|---------|--------------------------------------|------------|-------------------------------|
| Select                             | Type   | Originating Host   | File Name                            | File Size  | Creation Time                 |           |           |               |                       |           |         |                                      |            |                               |
| <input type="radio"/>              | pdbBackup  | Natal-a  | <a href="#">pdbBackup_Natal-a...</a> | 1.2M bytes | Fri July 13 2018 02:22:16 EDT |           |           |               |                       |           |         |                                      |            |                               |
| <p>8. <input type="checkbox"/></p> | <p>MPS X: An IM alarm should be observed with informational message on EPAP GUI confirming that restore PDB is in progress.</p> <p>An IM alarm should be observed with informational message on EPAP GUI confirming that restore PDB completed successfully.</p> | <p>Confirming that Restore PDB in progress:</p> <hr/> <p style="text-align: center;"><b>Informational Messages</b></p> <hr/> <div style="background-color: #f0f0f0; padding: 10px; text-align: center;"> <p><b>Informational Messages</b></p> <p>Restore PDB in progress</p> </div> <div style="background-color: #0056b3; color: white; padding: 5px; text-align: center;"> <p>Tue July 17 2018 02:31:52 EDT</p> </div> <p style="text-align: center;">Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p>   |                                      |            |                               |           |           |               |                       |           |         |                                      |            |                               |

## Appendix A.43 PDB Restore

|  |  |   |
|--|--|---|
|  |  | <p>Confirming that Restore PDB is completed successfully:</p> <div style="text-align: center;"> <h3>Informational Messages</h3> <hr/> <hr/> <div style="background-color: #e0e0e0; padding: 5px; margin: 5px auto; width: fit-content;"> <p style="text-align: center;"><b>Informational Messages</b><br/>Restore PDB completed successfully</p> </div> <div style="background-color: #0056b3; color: white; padding: 2px; margin: 5px auto; width: fit-content;"> <p style="text-align: center;">Tue July 17 2018 02:38:51 EDT</p> </div> <p style="text-align: center; font-size: small;">Copyright © 2000, 2018, Oracle and/or its affiliates. All rights reserved.</p> </div> |
| <p>9.<br/><input type="checkbox"/></p> | <p>Procedure complete.</p>   | <p>Return to the procedure that you came here from.</p>   |
| <p>10.</p>                             | <p>Re-Assign the remote PDBA name using the following command:</p> <pre>[root@Salta-A ~]# uiEdit   grep PDBA_REMOTE_NAME "PDBA_REMOTE_NAME" is set to "10.75.141.75"</pre> <p>Again grep the uiEidt variable name using the following command:</p> <pre>[root@Salta-A ~]# uiEdit   grep PDBA_REMOTE_NAME</pre> | <pre>[root@Salta-A ~]# uiEdit PDBA_REMOTE_NAME 10.75.141.75 "PDBA_REMOTE_NAME" is set to "10.75.141.75"</pre> <pre>[root@Salta-A ~]# uiEdit   grep PDBA_REMOTE_NAME "PDBA_REMOTE_NAME" is set to "10.75.141.75"</pre> <pre>[root@Salta-A ~]#</pre>  |
| <p>11.</p>                             | <p>Move the pdba binary file on Mixed and PDBonly server.</p>  | <pre>[root@Quito-a bin]# mv pdba pdba_stopped [root@Quito-a bin]#</pre>   |

## Appendix A.43 PDB Restore

|     |   |   |
|-----|---|---|
|     | <b>Note: This step is valid in case only when user is performing migration.</b> |   |
| 12. | MPS X: Verify that PDB_RTDB_SYNC is set to "YES"                                | <p>Run the below command to verify that PDB_RTDB_SYNC is set to YES.</p> <pre>\$ uiEdit   grep -i PDB_RTDB_SYNC</pre> <p>"PDB_RTDB_SYNC" is set to "YES"</p> <p>If "PDB_RTDB_SYNC" is set to "NO" in the above output, please set the uiEdit variable to "YES" using below command.</p> <pre>\$ uiEdit "PDB_RTDB_SYNC" "YES"</pre> <p>"PDB_RTDB_SYNC" is set to "YES"</p> |
| 13. | <input type="checkbox"/> Note down the timestamp in log.                        | <p>Run the following command:</p> <pre>\$ date</pre>  |

## Procedure A.44 RTDB Homing Policy to self PDBA

|                       |   |   |
|-----------------------|---|---|
| S<br>T<br>E<br>P<br># | This procedure resets the RTDB homing policy for the Non-Prov Nodes   |   |
|                       | <p><b>Estimated time of completion: 5 minutes.</b></p> <p>Check off ( <input type="checkbox"/> ) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b>.</p> <p><b>PROCEDURE APPLICABLE TO: Non-Provisionable EPAPs</b></p> |   |
| 1.                    | <u>MPS A: Login prompt is displayed.</u>  | <p>&lt;hostname&gt; console login:</p> <p>Note : Press enter if no login prompt is displayed.</p> |
| 2.                    | <u>MPS A: Log in as "root" user.</u>  | <p>[hostname] console login: root</p> <p>password: password</p>                                   |

|                            |  |  |
|----------------------------|--|--|
|                            |  |  |
| <input type="checkbox"/> 3 | MPS A:<br>Switch to<br>epapconfig<br>menu        | <pre># su - epapconfig Warning: Smartmatch is experimental at /usr/TKLC/plat/lib/Security/User.pm line 904.</pre>  |
| <input type="checkbox"/> 4 | Select<br>option 8<br>from<br>epapconfig<br>menu | <pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration  -----    2   Configure Network Interfaces Menu  -----    3   Set Time Zone  -----    4   Exchange Secure Shell Keys  -----    5   Change Password  -----    6   Platform Menu  -----    7   Configure NTP Server  -----    8   PDB Configuration Menu  -----    9   Security  -----    10   SNMP Configuration  -----    11   Configure Alarm Feed  -----    12   Configure SNMP Agent Community  -----    13   Mate Disaster Recovery  -----    14   DB Architecture Menu  -----    e   Exit \-----/  Enter Choice: 8 </pre> |

|                               |  |  |
|-------------------------------|--|--|
| 5<br><input type="checkbox"/> | Select option 2 to enter RTDB homing menu                                    | <pre> /-----Configure PDB Menu-----\ /-----\   1   Configure PDB Network             -----    2   RTDB Homing Menu                   -----    3   Change Auto DB Recovery State      -----    e   Exit                              \-----/  Enter Choice: 2 </pre>  |
| 6<br><input type="checkbox"/> | Read the Note in the beginning of the section and decide your homing policy. | <pre> For Mixed EPAP :  /-----RTDB Homing Menu-----\ /-----\   1   Configure Specific RTDB Homing    -----    2   Configure Active RTDB Homing      -----    3   Configure Standby RTDB Homing     -----    e   Exit                              \-----/  Enter Choice: 1 EPAP software and PDBA are running. Stop them? [N]: Y EPAP software is running on mate MPS. Stop it? [N]: Y There are two configured PDBs for this MPS: 1. 10.75.141.101 (local) 2. 10.75.141.32  Select the preferred PDB from which to receive updates [1]: 1  The RTDB Homing policy is set to 'specific' and will prefer updates from 10.75.141.101  Press return to continue... </pre> |
| 7<br><input type="checkbox"/> | MPS A and MPS B: Start Epap software.  | <pre> Start Epap and Pdba software to reflect the changes. Use the following command to start Epap:  For EPAP 16.3.1/16.4.1, Run the following command to start PDBA and EPAP Softwares:  \$ service Epap start ~~ /etc/init.d/Epap start ~~ "EPAP_RELEASE" is set to "0.617" EPAP application start successful.  \$ service Pdba start ~~ /etc/init.d/Pdba start ~~ </pre>  |

|   |   |   |
|---|---|---|
|   |   | <p>PDBA application start Successful.</p> <p>For EPAP 17.0, Run the following command to start PDBA and EPAP Softwares:</p> <pre>\$ systemctl start Epap</pre> <pre>\$ systemctl start Pdba</pre> |
| 8 | <input type="checkbox"/> <b>This procedure is complete.</b> | <b>This procedure is complete.</b>  |

### Procedure A.45 Backout of MPS A and MPS B in Mixed and Non-Prov

|                       |  |  |
|-----------------------|--|--|
| S<br>T<br>E<br>P<br># | This procedure will backout the MPS A and MPS B in Mixed and Non-Prov Site   |  |
|                       | <p><b>Estimated time of completion: 900 minutes.</b></p> <p>Check off (☐) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b>.</p> <p><b>PROCEDURE APPLICABLE TO: Non-Provisionable EPAPs</b></p> |  |
| 1                     | <input type="checkbox"/> Re-Install the Mixed or Non-Prov Node on EPAP 16.3.1/16.4.1   | Refer to EPAP 16.3.1/16.4.1 Install/Upgrade document |
| 2                     | <input type="checkbox"/> Restore the EuiDB, RTDB on Non-Prov EPAPs from the backup taken before performing migration on Non-Prov Nodes   | Refer to <a href="#">Section 3.4.2</a> , step 6      |

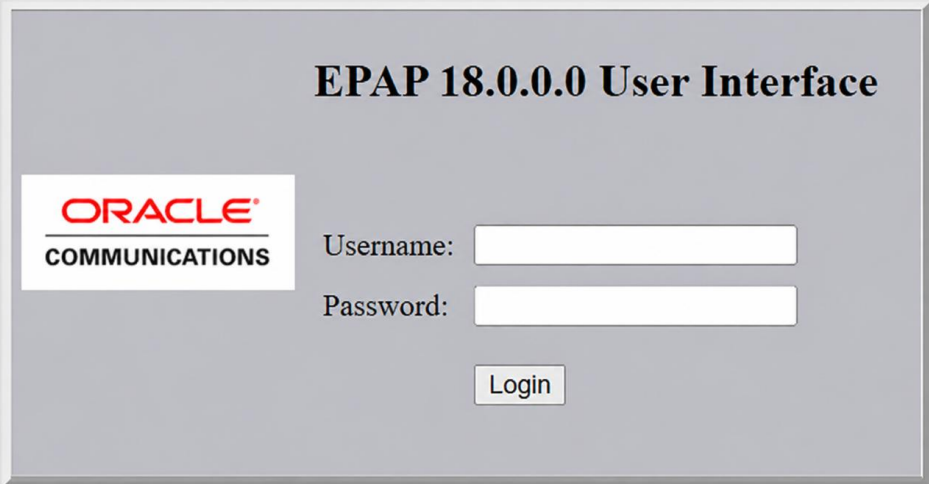
|                               |  |  |
|-------------------------------|--|--|
| 3<br><input type="checkbox"/> | Restore the EuiDB and PDB on Mixed EPAPs | <p>For EPAP 16.3.1/16.4.1 Backup files:</p> <p>Refer to <a href="#">section 3.4.1</a>, step 6 in case of Single Mixed or <a href="#">section 3.4.3</a>, step 6 in case of Dual Mixed</p> <p>To Restore EPAP 16.3.1/16.4.1 Backup files:</p> <p>Refer to <a href="#">Procedure A.32</a> for EuiDB Restore and <a href="#">Procedure A. 10</a> for RTDB Restore.</p> |
| 4<br><input type="checkbox"/> | <b>This procedure is complete.</b>       | <b>This procedure is complete.</b>   |

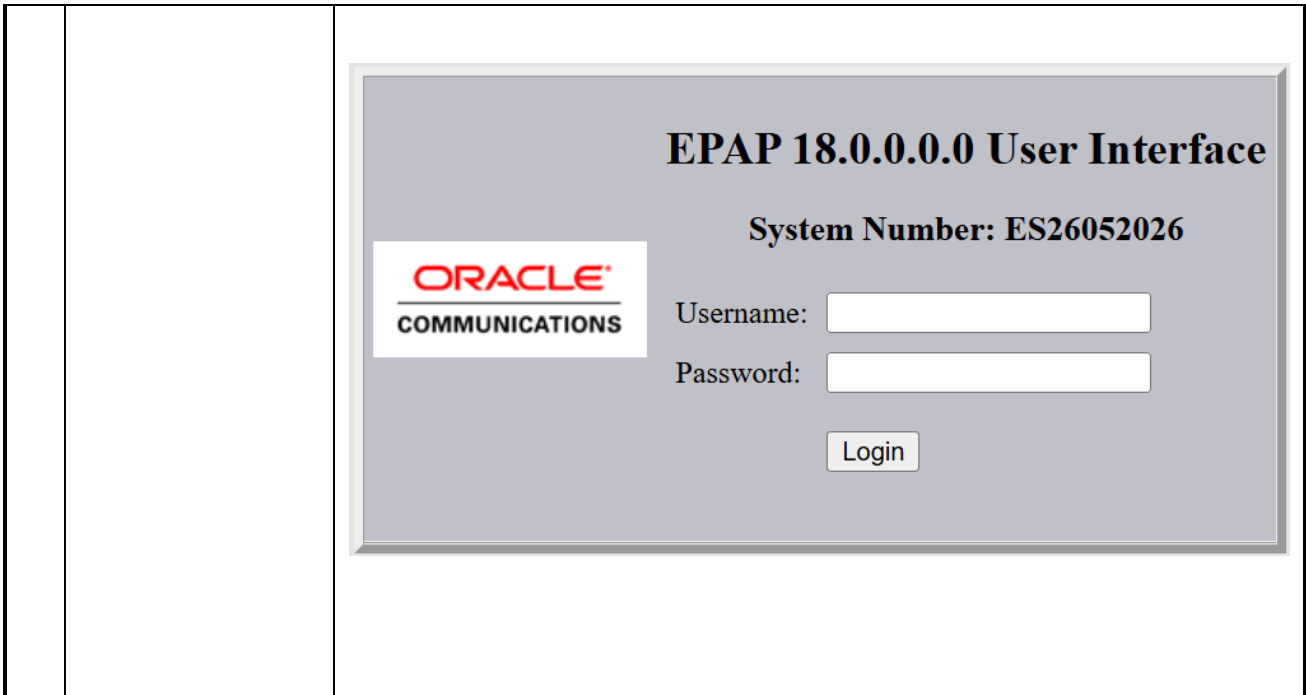
### Procedure A.46 Backout of PDBOnly site

|                               |  |   |
|-------------------------------|--|---|
| S<br>T<br>E<br>P<br>#         | This procedure will backout the PDBOnly site   |   |
|                               | <p><b>Estimated time of completion: 5 minutes.</b></p> <p>Check off (☐) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR <u>MIGRATION ASSISTANCE</u></b>.</p> <p><b>PROCEDURE APPLICABLE TO: Non-Provisionable EPAPs</b></p> |   |
| 1<br><input type="checkbox"/> | Re-Install the PDBOnly site on 16.3.1/16.4.1   | Refer to EPAP 16.3.1/16.4.1 Install/Upgrade document  |
| 2<br><input type="checkbox"/> | Restore the EuiDB, PDB on PDBOnly site from the backup taken before performing migration on Non-Prov Nodes   | Refer to <a href="#">Section 3.4.4</a> step 6 in the case of standalone PDB site or <a href="#">section 3.4.5</a> step 6 in case of dual PDBOnly sites.                                 |
| 3<br><input type="checkbox"/> | Restore the EuiDB and PDB on PDBOnly site  | <p>For EPAP 16.3.1/16.4.1 Backup files :</p> <p>Refer to <a href="#">Section 3.4.4</a> step 6 in case of Single Mixed or <a href="#">section 3.4.3</a> step 6 in case of Dual Mixed</p> |

|   |   |  |
|---|---|--|
|   |   | To Restore EPAP 16.3.1/16.4.1 Backup files :<br><br>Refer <a href="#">Procedure A.32</a> for EuiDB Restore and <a href="#">Procedure A.43</a> for PDB Restore. |
| 4 | <input type="checkbox"/> <b>This procedure is complete.</b> | <b>This procedure is complete.</b>   |

### Procedure A.47 Switchover PDBA state

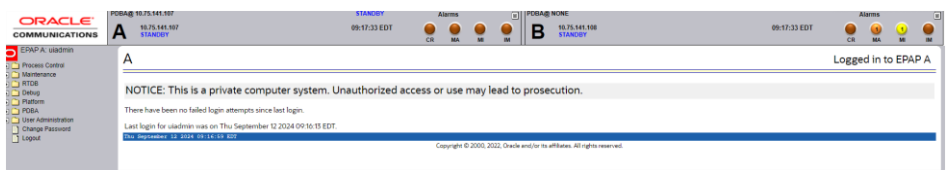
|                                  |  |  |
|----------------------------------|--|--|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | This procedure provisions 1 NE and 1 DN from GUI on Active Site.<br><br>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.<br><br><b>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</b> |  |
|                                  | <b>1.</b><br><input type="checkbox"/> Access the EPAP GUI by opening a web browser (Preferably Microsoft Edge) via HTTPS and providing the IP address of Server A.<br><br>The EPAP LOGIN screen should appear.   | The GUI screen on Mixed EPAP appears.<br><br><br><br>The GUI screen on standalone PDB appears. |



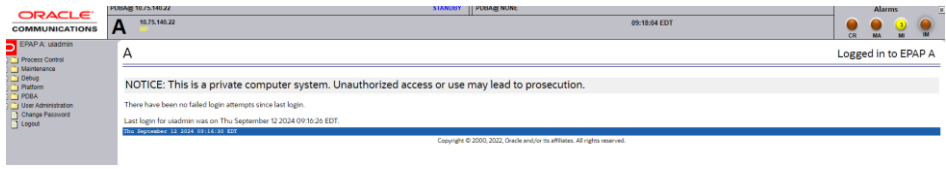
2.

Log in as uiadmin.

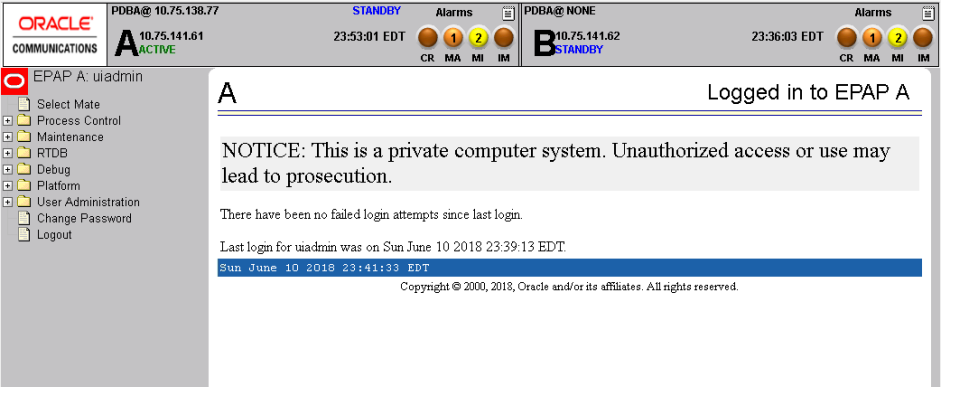
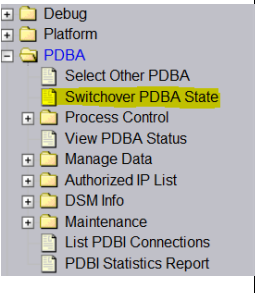
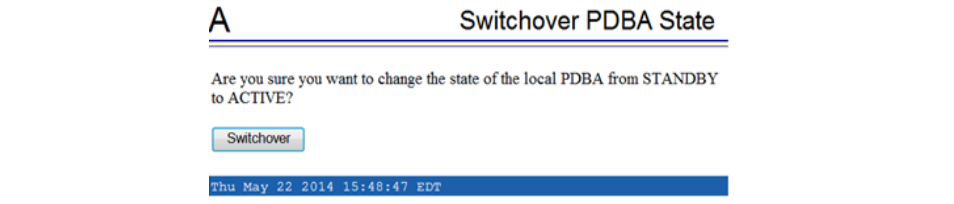


The GUI screen on Mixed EPAP appears.



The GUI screen on Standalone PDB appears.



The GUI screen on Non-Prov EPAP appears.

|                                    |   |   |
|------------------------------------|---|---|
|                                    |   |   |
| <p>3. <input type="checkbox"/></p> | <p>On the Site designated by the customer Active PDB GUI, select “<b>Switchover PDBA State</b>” to make the PDBA Active.</p>  | <p>The following screen appears.</p>    |
| <p>4. <input type="checkbox"/></p> | <p>Click on the “<b>Switchover</b>” button.</p>   | <p>The following screen appears.</p>  |
| <p>5. <input type="checkbox"/></p> | <p>PDBA should becomebe ACTIVE.</p>   | <p>The following screen appears.</p>  |

## Procedure A.48 Dual Image Upgrade Known Issues Fix

1. Title: Stuck in the boot menu with multiple boot options.

Fix: If you are stuck in the boot menu while rebooting during Apply Upgrade, select the default option. An example of the default option to be selected is given below:

```

Oracle Linux Server 8 (5.15.0-209.161.7.el8uek.x86_64)
Oracle Linux Server (4.18.0-553.16.1.el8_10.x86_64) 8.10
Oracle Linux Server 8 (0-rescue-c651157eee214c9dbded006a90a81656)

Use the ^ and v keys to change the selection.
Press 'e' to edit the selected item, or 'c' for a command prompt.
  
```

If you are stuck in the boot menu while rejecting the upgrade, please select the “split-mirror-backout” option. An Example is given below:

```

Oracle Linux Server (4.18.0-477.21.1.el8_8.x86_64) 8.8
split-mirror-backout
  
```

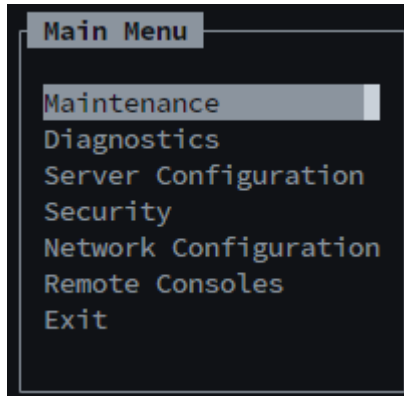
## 2. Core Files Alarm on the upgraded setup

**Fix:** It is a known alarm that originates in case of Dual Image Upgrade. To get rid of this alarm, run these commands on the setup that is having those alarms:

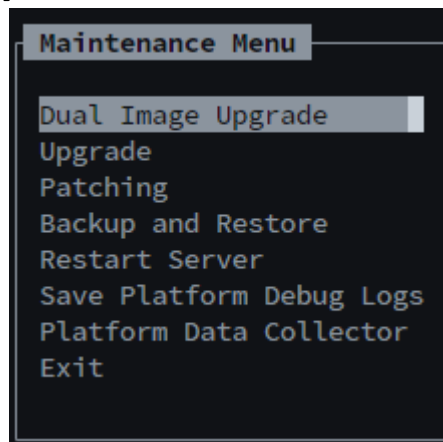
```
[root@Osorna-A ~]# rm -rf /var/TKLC/core/*
```

## Procedure A.49 Accept/Reject the Dual Image Upgrade

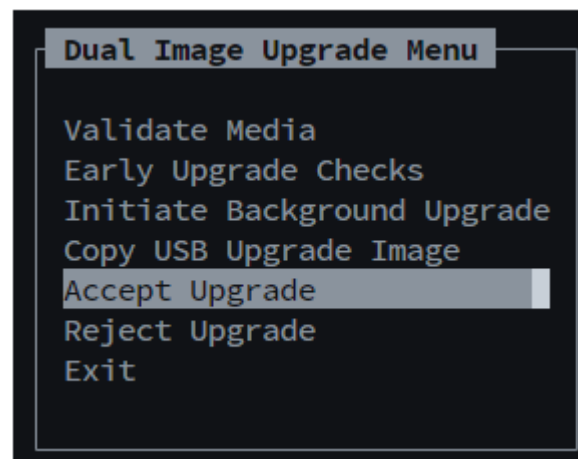
|   |                               |   |
|---|-------------------------------|---|
| 1 | Accept/Reject the DIU upgrade | <p>Follow the below steps to Accept/Reject the DIU upgrade. Log in to the setup with the root user.</p> <ol style="list-style-type: none"> <li>1. Run the following command:<br/> <pre>[root@Floater04 ~]# su - platcfg</pre> </li> <li>2. Select the Maintenance option and press <b>[ENTER]</b>.</li> </ol> |
|---|-------------------------------|---|



3. From the maintenance menu, select the **Dual Image Upgrade** option and press **[ENTER]**.



4. From the dual image upgrade menu, select the **Accept** or **Reject** option and press **Enter**.



a. The following logs will appear on the screen (in case of Accept).

```
/var/TKLC/backout/biosboot.gz
/mnt/upgrade/images/plat_usr.tar.gz
/mnt/upgrade/images/plat_var.tar.gz
/mnt/upgrade/images/plat_var_tklc.tar.gz
Performing image post-accept
Running postAccept() for DIUpgrade:Policy:P20TPD upgrade policy...
Running postAccept() for DIUpgrade:Policy:P31EPAPssl upgrade policy...
Running postAccept() for DIUpgrade:Policy:P32EPAPSyscheck upgrade policy...
Running postAccept() for DIUpgrade:Policy:P33EPAPMycnf upgrade policy...
Creating alarm script: /tmp/xtVsQSxvFJ
Re-adding secondary drive to the raid mirror.
Re-added secondary drive to the raid mirror.
#####
#          ACCEPT COMPLETE          #
#####
Check is rebootcheck is enabled ...
Disabling service rebootcheck...
Transitioning from 'Accepting Upgrade' to 'No Upgrade Available'
Cleaning backout directory.

PRESS ANY KEY TO RETURN TO THE PLATCFG MENU.
```

```
Message
The accept has completed.

Press any key to continue...
```

b. The following logs will appear on the screen (in case of Reject)

|   |                                      |  |
|---|--------------------------------------|--|
|   |                                      | <pre> 06:50:15 Running pre-installation scripts 1770619815: ##### 1770619815: Creating temporary mount points! 1770619815: ##### 1770619815: ##### 1770619815: Activating volume groups! 1770619815: ##### 1770619815: ##### 1770619815: Mounting vgroot-plat_var_tklc 1770619815: ##### 1770619815: Securing old logs! 1770619815: ##### 1770619815: upgrade_info.yml found on primary mount, proceeding. 1770619815: ##### 1770619815: ##### 1770619815: De-Activating vo 1770619815: ##### 1770619815: Stopping raid devices 1770619815: ##### 1770619815: stopping /dev/md mdadm: stopped /dev/md  [ 82.222044] bash[7059]: [Mon Feb 09 02:22:29.960650 2026] [so:warn] [pid 7059] AH01574: module ssl_module is already loaded, skipping [ 82.224086] bash[7059]: [Mon Feb 09 02:22:29.963696 2026] [so:warn] [pid 7059] AH01574: module security2_module is already loaded, skipping [ 82.233082] bash[7059]: [Mon Feb 09 02:22:29.966645 2026] [so:warn] [pid 7059] AH01574: module headers_module is already loaded, skipping [ 82.233235] bash[7059]: [Mon Feb 09 02:22:29.966687 2026] [so:warn] [pid 7059] AH01574: module rewrite_module is already loaded, skipping [ 82.233233] bash[7059]: [Mon Feb 09 02:22:29.972311 2026] [core:warn] [pid 7859] AH00117: Ignoring deprecated use of DefaultType in line 459 of /etc/httpd/conf/httpd.conf. [ 82.233403] bash[7059]: [Mon Feb 09 02:22:29.972338 2026] [alias:warn] [pid 7059] AH00671: The Alias directive in /etc/httpd/conf/httpd.conf at line 557 will probably never match because it overlaps an earlier Alias. [ 82.436372] bash[7078]: [Mon Feb 09 02:22:30.176286 2026] [so:warn] [pid 7078] AH01574: module cgi_module is already loaded, skipping [ 82.436988] bash[7078]: [Mon Feb 09 02:22:30.177039 2026] [so:warn] [pid 7078] AH01574: module ssl_module is already loaded, skipping [ 82.439967] bash[7078]: [Mon Feb 09 02:22:30.180307 2026] [so:warn] [pid 7078] AH01574: module security2_module is already loaded, skipping [ 82.443045] bash[7078]: [Mon Feb 09 02:22:30.183007 2026] [so:warn] [pid 7078] AH01574: module headers_module is already loaded, skipping [ 82.443130] bash[7078]: [Mon Feb 09 02:22:30.183048 2026] [so:warn] [pid 7078] AH01574: module rewrite_module is already loaded, skipping [ 82.448443] bash[7078]: [Mon Feb 09 02:22:30.188771 2026] [core:warn] [pid 7078] AH00117: Ignoring deprecated use of DefaultType in line 459 of /etc/httpd/conf/httpd.conf. [ 82.448566] bash[7078]: [Mon Feb 09 02:22:30.188801 2026] [alias:warn] [pid 7078] AH00671: The Alias directive in /etc/httpd/conf/httpd.conf at line 557 will probably never match because it overlaps an earlier Alias. [ 82.857679] TKLWatchdog[6977]: Starting TKLWatchdog. [ 82.858208] TKLWatchdog[7041]: Daemon is not running... [ 82.955950] TKLWatchdog[7038]: AlarmMgr daemon is not running, delaying by 1 minute [ 83.307634] TKLWatchdog[7198]: Filesystem monitoring is not enabled. [ 83.373614] TKLWatchdog[6977]: [ OK ] [ 84.207196] TKLCdiskcheck[7278]: Verifying disk configuration for S.M.A.R.T.: [ OK ] [ 85.131149] bash[7578]: RequestReadTimeout [ 85.352982] bash[7615]: LimitRequestLine [ 85.459245] bash[7635]: LimitRequestFields [ 85.586425] bash[7659]: LimitRequestFieldSize [ 85.694159] bash[7679]: LimitRequestBody [ 86.080288] TKLCeSappx[7476]: Starting TKLCeSappx: [ OK ] [ 89.521781] TKLCethcfg[7738]: Checking network config files: [ 90.265449] TPD-PDC[7972]: Daemon is not running... [ 90.348356] TPD-PDC[7966]: AlarmMgr daemon is not running, delaying by 1 minute [ 100.174530] completeTasks[8037]: completeTasks started: Mon Feb 9 02:22:47 2026 [ 100.174766] completeTasks[8037]: LOG FILE: /var/TKLCLog/TaskMgr/completeTasks.Log </pre> <p><b>NOTE: In case of rejecting DIU upgrade, if the reject DIU upgrade gets stuck in between, try reseating the card. It has been observed that after reseating the card DIU upgrade reject proceeds further successfully. Please note that this is just a workaround which might not work if the issue is different. Contact MyOracle support in case the issue is not resolved.</b></p> |
| 2 | MPS X: Revert the space taken during | This is the process to revert the unmounted space that was taken while doing the DIU procedure.  |

|                |  |   |
|----------------|--|---|
|                | <p>DIU. This step should only be done after accepting the DIU upgrade.</p> | <p><b>Note:</b> This should only be done after accepting the DIU upgrade.</p> <p>Procedure:</p> <ul style="list-style-type: none"> <li>Run the following command:<br/> <code>lvextend -L +30G /dev/vgroot/free; resize2fs /dev/vgroot/free</code></li> </ul>  |
| <p>3<br/>□</p> | <p>MPS X: Follow this step only if rejecting DIU upgrade</p>               | <p>After the DIU upgrade is rejected, follow below steps to unmask and restart services.</p> <p><b><u>For Mixed EPAP, run below commands</u></b></p> <p>These commands will be run on both MPS-A and MPS-B after rejecting DIU upgrade.</p> <pre>[root@osorna-B ~]# systemctl unmask Epap Pdba mysql@app mysql@pdb crond runGsConn  [root@osorna-B ~]# systemctl restart mysql@pdb mysql@app Epap Pdba crond runGsConn  [root@osorna-B ~]# systemctl status mysql@pdb mysql@app Epap Pdba crond runGsConn</pre> <p><b>Check if, PDBA Proxy feature is enabled on Mixed EPAP:</b><br/> <pre>[root@Manaus-b epapall]# uiEdit   grep PDBA_PROXY_ENABLED "PDBA_PROXY_ENABLED" is set to "YES"</pre></p> <p><b>If the PDBA_PROXY_ENABLED is set to YES, then run the below commands else skip running below commands on Mixed EPAP:</b></p> <pre>[root@osorna-B ~]# systemctl unmask TKLCha TKLCharsync [root@osorna-B ~]# systemctl restart TKLCha TKLCharsync [root@osorna-B ~]# systemctl status TKLCha TKLCharsync</pre> <p><b><u>For Non-Prov EPAP, run below commands</u></b></p> <p>These commands will be run on both MPS-A and MPS-B after rejecting DIU upgrade.</p> <pre>[root@osorna-B ~]# systemctl unmask Epap mysql@app crond [root@osorna-B ~]# systemctl restart mysql@app Epap crond [root@osorna-B ~]# systemctl status mysql@app Epap crond</pre> <p><b><u>For PDBOnly EPAP, run below commands</u></b></p> <pre>[root@osorna-A ~]# systemctl unmask Pdba mysql@pdb [root@osorna-A ~]# systemctl restart Pdba mysql@pdb [root@osorna-A ~]# systemctl status Pdba mysql@pdb</pre> |

|                               |                                    |                                    |
|-------------------------------|------------------------------------|------------------------------------|
| 4<br><input type="checkbox"/> | <b>This procedure is complete.</b> | <b>This procedure is complete.</b> |
|-------------------------------|------------------------------------|------------------------------------|

## Procedure A.50 MySQL RPM Upgrade Procedure

### Note:

- 1) This procedure is only applicable if upgrading from EPAP 17.0.0.x/17.1.x to 18.x via migration.
- 2) The EPAP GUI will not be accessible after this procedure.

| S. No. | Steps  | This procedure performs MySQL RPM Upgrade on the server.<br>If this procedure fails, contact My Oracle Support and ask for ASSISTANCE. |
|--------|--|--|
| 1      | MPS X: Login prompt is displayed.                      | <hostname> console login:<br><br>Note: Press enter if no login prompt is displayed.  |
| 2      | MPS X: Log in as epapdev user and switch to root user. | [hostname] consolelogin: epapdev<br>password: password<br><br>epapdev@lthaca-a ~]\$ su -<br>Password:password                          |

|   |   |  |
|---|---|--|
| 3 | <p>MPS X: Copy Mysql 8.4.9 RPMS from mysql_rpms directory of Mysql_Upgrade_Rpms_8.4.9.zip into free directory via epapdev user</p>  | <p>After copying mysql rpms run the following command to check if they are present in free directory.</p> <pre>[root@Salta-a ~]# ll /var/TKLC/epap/free</pre> <pre>-rwxr-x--- 1 epapdev epap 4126228 May 6 02:47 mysql-commercial-backup-8.4.9-1.1.el8.x86_64.rpm</pre> <pre>-rwxr-x--- 1 epapdev epap 13426684 May 6 02:47 mysql-commercial-client-8.4.9-1.1.el8.x86_64.rpm</pre> <pre>-rwxr-x--- 1 epapdev epap 4180992 May 6 02:47 mysql-commercial-client-plugins-8.4.9-1.1.el8.x86_64.rpm</pre> <pre>-rwxr-x--- 1 epapdev epap 713140 May 6 02:47 mysql-commercial-common-8.4.9-1.1.el8.x86_64.rpm</pre> <pre>-rwxr-x--- 1 epapdev epap 23173472 May 6 02:47 mysql-commercial-devel-8.4.9-1.1.el8.x86_64.rpm</pre> <pre>-rwxr-x--- 1 epapdev epap 2373172 May 6 02:47 mysql-commercial-icu-data-files-8.4.9-1.1.el8.x86_64.rpm</pre> <pre>-rwxr-x--- 1 epapdev epap 1532928 May 6 02:47 mysql-commercial-libs-8.4.9-1.1.el8.x86_64.rpm</pre> <pre>-rwxr-x--- 1 epapdev epap 62474572 May 6 02:47 mysql-commercial-server-8.4.9-1.1.el8.x86_64.rpm</pre> |
| 4 | <p>MPS X:<br/>Copy install_mysql.sh from scripts directory of Mysql_Upgrade_Rpms_8.4.9.zip into free directory via epapdev user</p> | <p>After copying install_mysql.sh to free directory, move to free directory.</p> <pre>[root@Salta-a ~]# cd /var/TKLC/epap/free</pre> <p>Change permissions of the script:</p> <pre>[root@Salta-a free]# chown epapdev:epap install_mysql.sh</pre> <pre>[root@Salta-a free]# chmod 755 install_mysql.sh</pre>   |
| 5 | <p>MPS X:<br/>Run install_mysql.sh</p>  | <pre>[root@Salta-a free]# ./install_mysql.sh</pre> <p>Performing installation of mysql commercial version 8.4.9</p> <pre>Verifying... ##### [100%]</pre> <p>Preparing...</p> <pre>##### [100%]</pre> <p>Updating / installing...</p> <pre>1:mysql-commercial-icu-data-files- 8##### [ 50%]</pre> <p>Cleaning up / removing...</p> <pre>2:mysql-commercial-icu-data-files- 8##### [100%]</pre> <p>Verifying...</p> <pre>##### [100%]</pre>  |

|  |  |  |
|--|--|--|
|  |  | <pre> Preparing... ##### [100%] Updating / installing...   1:mysql-commercial-client-8.4.9- 1.1##### [ 50%] Cleaning up / removing...   2:mysql-commercial-client-8.4.0- 1.1##### [100%] Verifying... ##### [100%] Preparing... ##### [100%] Updating / installing...   1:mysql-commercial-devel-8.4.9- 1.1.##### [ 50%] Cleaning up / removing...   2:mysql-commercial-devel-8.4.0- 1.1.##### [100%] Verifying... ##### [100%] Preparing... ##### [100%] Updating / installing...   1:mysql-commercial-common-8.4.9- 1.1##### [ 50%] Cleaning up / removing...   2:mysql-commercial-common-8.4.0- 1.1##### [100%] Verifying... ##### [100%] Preparing... ##### [100%] Updating / installing...   1:mysql-commercial-libs-8.4.9- 1.1.e##### [ 50%] Cleaning up / removing...   2:mysql-commercial-libs-8.4.0- 1.1.e##### [100%] Verifying... ##### [100%] Preparing... ##### [100%] Updating / installing...   1:mysql-commercial-backup-8.4.9- 1.1##### [ 50%] Cleaning up / removing... </pre> |
|--|--|--|

|   |   |  |
|---|---|--|
|   |   | <pre> 2:mysql-commercial-backup-8.4.0- 1.1##### [100%] Verifying... ##### [100%] Preparing... ##### [100%] Updating / installing...   1:mysql-commercial-client-plugins- 8##### [ 50%] Cleaning up / removing...   2:mysql-commercial-client-plugins- 8##### [100%] Verifying... ##### [100%] Preparing... ##### [100%] Updating / installing...   1:mysql-commercial-server-8.4.9- 1.1##### [ 50%] Cleaning up / removing...   2:mysql-commercial-server-8.4.0- 1.1##### [100%] [root@Kos-a-PDBonly free]# </pre> |
| 6 | <p>MPS X:<br/>Check if Mysql RPM's upgraded or not.</p> <p><b>Note: Versions of mysql-common and perl-DBD packages may vary depending upon EPAP version you are migrating from.</b></p> | <pre> [root@Salta-a free]# rpm -qa   grep -i mysql  mysql-commercial-devel-8.4.9-1.1.el8.x86_64 mysql-commercial-backup-8.4.9-1.1.el8.x86_64 mysql-commercial-client-plugins-8.4.9-1.1.el8.x86_64 mysql-commercial-client-8.4.9-1.1.el8.x86_64 perl-DBD-mysql-5.013P-18.0.0.0.0_180.1.0.x86_64 mysql-commercial-icu-data-files-8.4.9-1.1.el8.x86_64 mysql-commercial-common-8.4.9-1.1.el8.x86_64 mysql-commercial-libs-8.4.9-1.1.el8.x86_64 mysql-commercial-server-8.4.9-1.1.el8.x86_64 </pre>                    |
| 7 | <p>MPS X:<br/>Copy update_plugin.sh from scripts directory of Mysql_Upgrade_Rpms_8.4.9.zip into free directory via epapdev user</p>   | <p>After copying update_plugin.sh to free directory,</p> <p>Change permissions of the script:</p> <pre> [root@Salta-a free]# chown epapdev:epap update_plugin.sh  [root@Salta-a free]# chmod 755 update_plugin.sh </pre>   |
| 8 | <p>MPS X:<br/>Run update_plugin.sh</p>  | <pre> [root@Salta-a free]# ./update_plugin.sh </pre> <p>Login to mysql and check plugin of mysql users</p>   |

|   |  |   |
|---|--|---|
|   |  | <pre> [root@Salta-a free]# mysql -uroot - p&lt;MySQL_root_password&gt; -S /var/TKLC/epap/db/pdb/mysql.sock mysql: [Warning] Using a password on the command line interface can be insecure. Welcome to the MySQL monitor.  Commands end with ; or \g. Your MySQL connection id is 17 Server version: 8.4.9-commercial MySQL Enterprise Server - Commercial  Copyright (c) 2000, 2026, Oracle and/or its affiliates.  Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.  Type 'help;' or '\h' for help. Type '\c' to clear the current input statement. mysql&gt; select user,plugin,host from mysql.user; +-----+-----+-----+   user        plugin            host        +-----+-----+-----+   multi_admin   caching_sha2_password   localhost     mysql.infoschema   caching_sha2_password   localhost     mysql.session   caching_sha2_password   localhost     mysql.sys   caching_sha2_password   localhost     pdbSelect   caching_sha2_password   localhost     pdba   caching_sha2_password   localhost     root   caching_sha2_password   localhost     statuser   caching_sha2_password   localhost     pdba   caching_sha2_password   mate     root   caching_sha2_password   mate     pdbSelect   caching_sha2_password   salta-a   +-----+-----+-----+ 11 rows in set (0.00 sec) mysql&gt; exit </pre> |
| 9 | <p>MPS X:<br/>Copy pdbBackup.sh from scripts directory of Mysql_Upgrade_Rpms_8.4.9.zip into free directory via epapdev user (edited)</p> | <p>After copying pdbBackup.sh to free directory,</p> <p>Change permissions of the script:<br/> <b>[root@Salta-a free]# chown epapdev:epap pdbBackup.sh</b><br/><br/> <b>[root@Salta-a free]# chmod 755 pdbBackup.sh</b></p>   |

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|    |  |   |
| 10 | MPS X:<br>Run pdbBackup.sh script                                      | [root@Salta-a free]# ./pdbBackup.sh<br><br>The script ends with below logs at the end.<br>.....<br>.....<backup logs>.....<br>.....<br>ibbackup completed OK!<br><b>pdbBackup_Donut-A_1738050432.tar.gz has been created</b>  |
| 11 | MPS X:<br>Transfer the backup created in above step to remote machine. | Using SFTP (secure-FTP), transfer the PDB backup file to a remote, customerprovided computer. Enter “yes” when prompted if you want to continue to connect.<br><b>\$ cd /var/TKLC/epap/free</b><br><b>\$ sftp &lt;IP address of remote machine&gt;</b><br>Connecting to ... The authenticity of host " can't be established.<br>DSA key fingerprint is<br>58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24.<br>Are you sure you want to continue connecting (yes/no)? <b>yes</b><br>Warning: Permanently added ' (DSA) to the list of known hosts.<br><b>root@&lt;IP address of remote machine&gt;'s password:</b><br>sftp> cd <target directory><br>sftp> put <b>pdbBackup_Donut-A_1738050432.tar.gz</b><br>Uploading <b>pdbBackup_Donut-A_1738050432.tar.gz</b> to<br><b>pdbBackup_Donut-A_1738050432.tar.gz</b><br>sftp> bye<br>If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command<br>\$ su – epapdev<br>\$ scp /var/TKLC/epap/free/<PDB backup file><br>epapdev@mate:/var/TKLC/epap/free/ |

### Procedure A.51 Post MySQL RPM upgrade PDB Restore Procedure

**Note:** This procedure is only applicable if upgrading from EPAP 17.0.0.x to 17.0.0.6 via migration.

| S.No | Steps | This procedure restores the PDB backup created by MySQL RPM Upgrade Procedure on the server. |
|------|-------|--|
|      |       |  |

|   |  |  |
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|   |  | <p><b>Check off (✓) each step as it is completed. Boxes have been provided for this purpose beside each step number. If this procedure fails, contact My Oracle Support and ask for ASSISTANCE.</b></p>  |
| 1 | MPS X: Login prompt is displayed.                      | <p>&lt;hostname&gt; console login:</p> <p>Note: Press enter if no login prompt is displayed.</p>   |
| 2 | MPS X: Log in as epapdev user and switch to root user. | <p>[hostname] consolelogin: epapdev<br/>password: password<br/>[epapdev@lthaca-a ~]\$ su -<br/>Password:password</p>   |
| 3 | MPS X: Copy the PDB Backup file to free directory.     | <p>After copying PDB backup to free directory,<br/>Change Permissions of PDB Backup:</p> <p><b>[root@Salta-a ~]# cd /var/TKLC/epap/free</b></p> <p><b>[root@Salta-a free]# chown epapdev:epap pdbBackup_Salta-a_1737987790.tar.gz</b></p> <p><b>root@Salta-a free]# chmod 755 pdbBackup_Salta-a_1737987790.tar.gz</b></p>  |
| 4 | MPS X: Restoring the PDB                               | <p><b>[root@Donut-A free]# /usr/TKLC/epap/config/restore_pdb --force</b><br/>Tue Jan 28 08:58:03 EST 2025<br/>This script will replace the existing PDB with one provided from a backup and copy the restored backup to the remote.<br/><b>Are you sure you want to do continue? (y/n) y</b></p> <p><b>Enter the name of the backup tar.gz file.</b><br/><b>/var/TKLC/epap/free/pdbBackup_Donut-A_1738050432.tar.gz</b><br/>localIp = 10.75.141.119<br/>localName=Donut-A<br/>remotelp = 0.0.0.0<br/>No remote site<br/>WARNING : If this backup is from EPAP 16.1 or earlier release please use option --force7<br/><b>Are you sure this backup is taken on EPAP 16.2 release? (y/n)y</b><br/><b>Do you want to restore Stats database? (y/n) y</b><br/>Running with force option! Skip disk space check..<br/>remoteBlp = 0.0.0.0<br/>There is no remote B PDB<br/>Unzipping backup file. This may take a while..<br/>Running with force option! Skip compatibility check..<br/>Stopping local PDBA<br/>Stopping local PDB mysql daemon<br/>No need to create backup directory..<br/>Running ibbackup tool to restore DBWe trust you have received the usual</p> |

|  |  |
|--|--|
|  | <p>lecture from the local System</p> <p>Administrator. It usually boils down to these three things: #1) Respect the privacy of others.<br/> #2) Think before you type.<br/> #3) With great power comes great responsibility.[sudo] password for mysql:</p> <p>mysql:<br/> .....<br/> ....&lt;Restore Logs&gt;.....<br/> .....<br/> Restore completed successfully. Wed<br/> Jan 29 02:37:23 EST 2025<br/> [root@Donut-A free]#</p> |
|--|--|

### Procedure A.52 Configure PDB Capacity

Note: Customers may follow it if they need to configure or update capacity at this stage.  
Procedure A.52: Configure PDB capacity

| S. No                         | Steps                                     | This procedure configures the PDB capacity for PDBOnly server in extreme architecture installed with EPAP 18.0 release.<br>Check off (✓) each step as it is completed. Boxes have been provided for this purpose beside each step number.<br>If this procedure fails, contact My Oracle Support and ask for ASSISTANCE. |
|-------------------------------|---|---|
| 1<br><input type="checkbox"/> | <b>Supported DB Capacity in EPAP 17.1</b> | 510M DNs are supported for extreme Architecture Only. These capacities will be configured on PDBOnly server.  |

|                               |  |  |
|-------------------------------|--|--|
|                               |  | <p>With EPAP 18.0 the supported DB combinations for extreme architecture are given below:</p> <ol style="list-style-type: none"> <li>1. 510M DN/IMSI/IMEI for SLIC with Data Split OFF</li> <li>2. 900M (420M DN + 480M IMSI/IMEI) for SLIC with Data Split ON</li> <li>3. 1110M (510M DN + 600M IMSI/IMEI) for SLIC with Data Split ON</li> </ol> |
| 2<br><input type="checkbox"/> | <p><b>MPS</b><br/><b>A:</b> Configure PDB capacity</p> | <p>Please configure the PDB capacity following the EPAP 17.1 Administration guide.</p> <p><a href="#">Oracle Communications EAGLE Application Processor Administration Guide, Release 17.1</a></p> <p>Section 6.6 Standalone PDB Capacity Configuration (Page 6-35)</p>  |
| 3<br><input type="checkbox"/> | <p><b>Procedure is complete.</b></p>                   | <p>Procedure is complete.</p>  |

# APPENDIX B INTERCONNECTION DIAGRAM

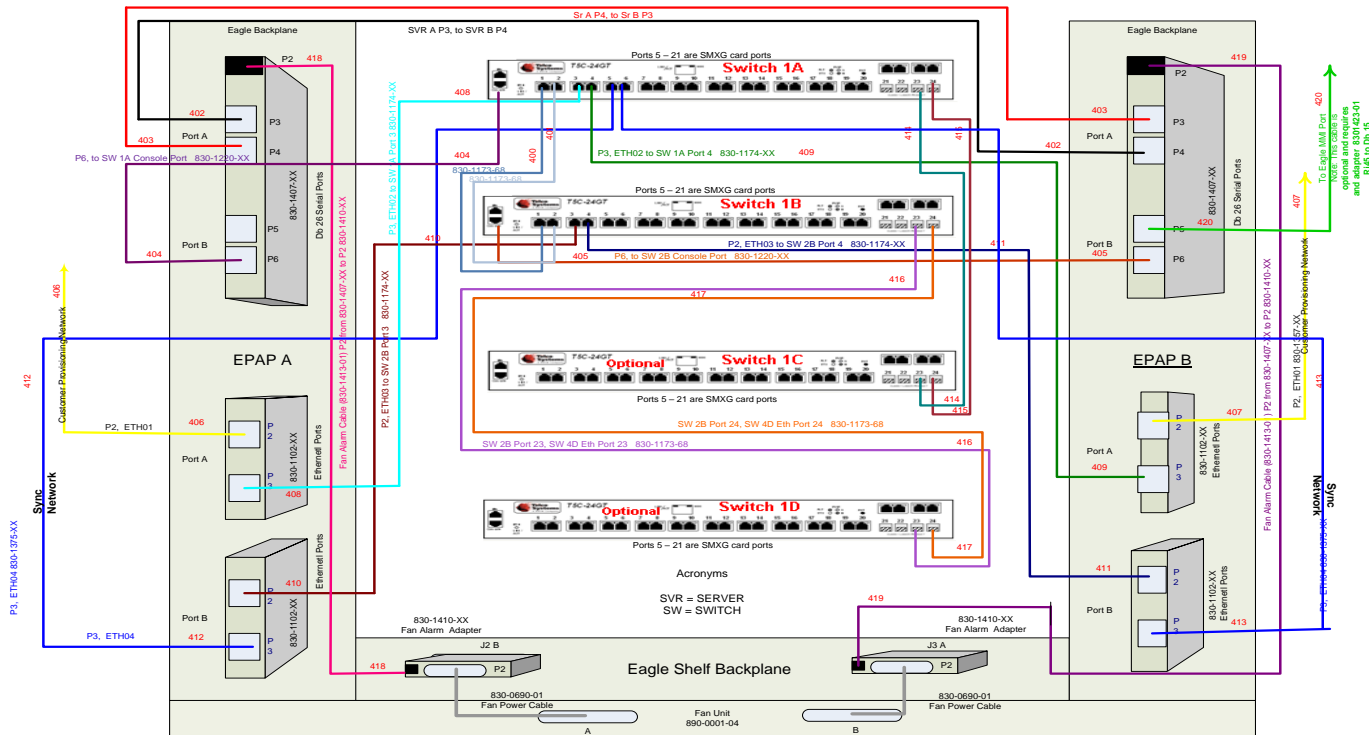


Figure 9: Interconnectivity Diagram for Sync Network Redundancy (Eth04 used for Sync Network)

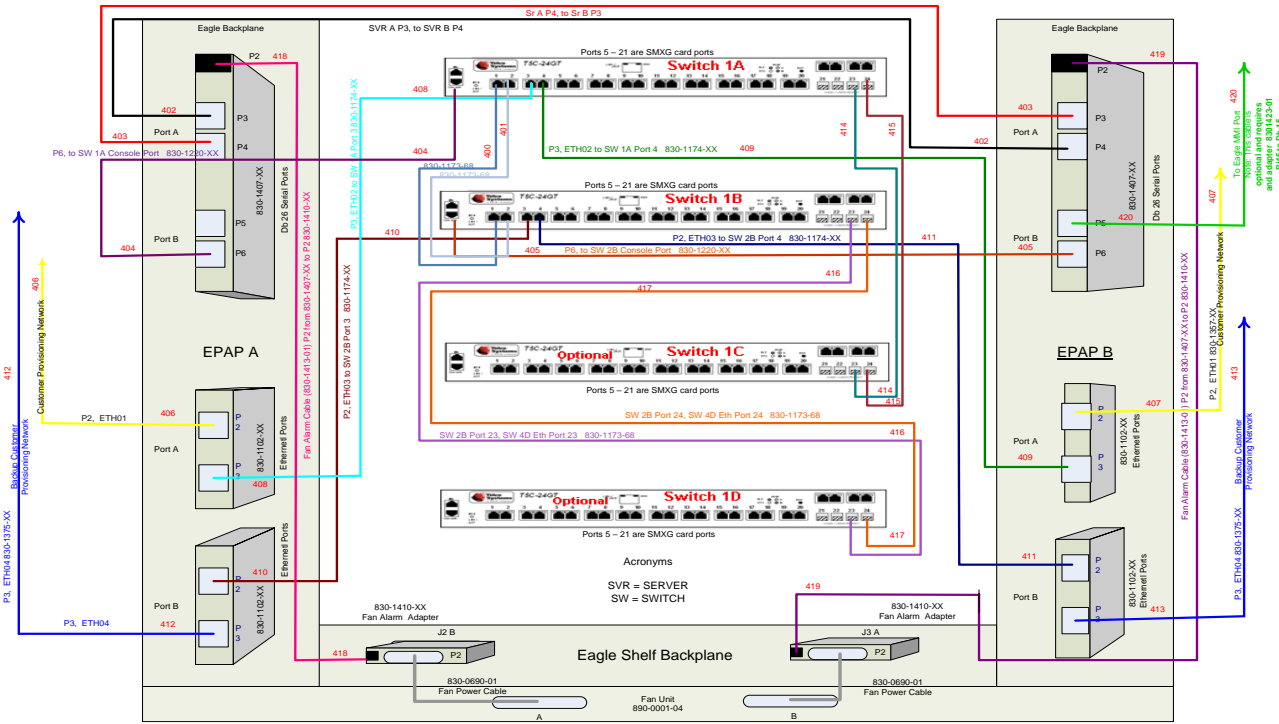

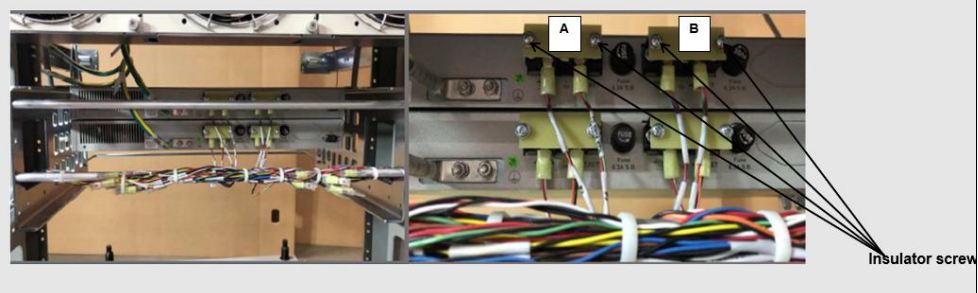
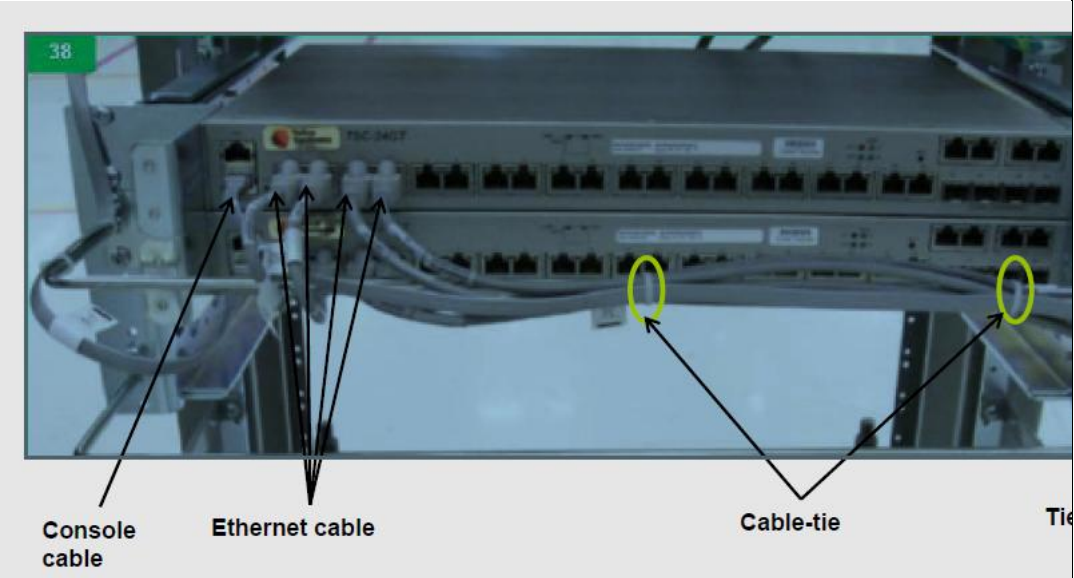
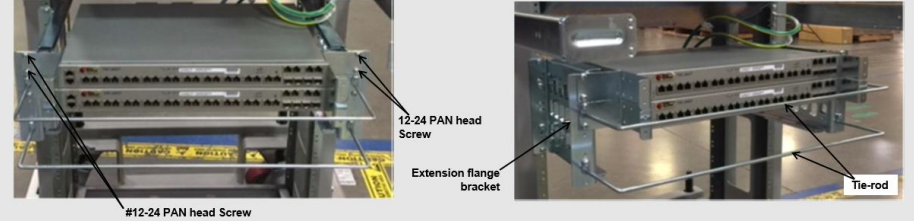
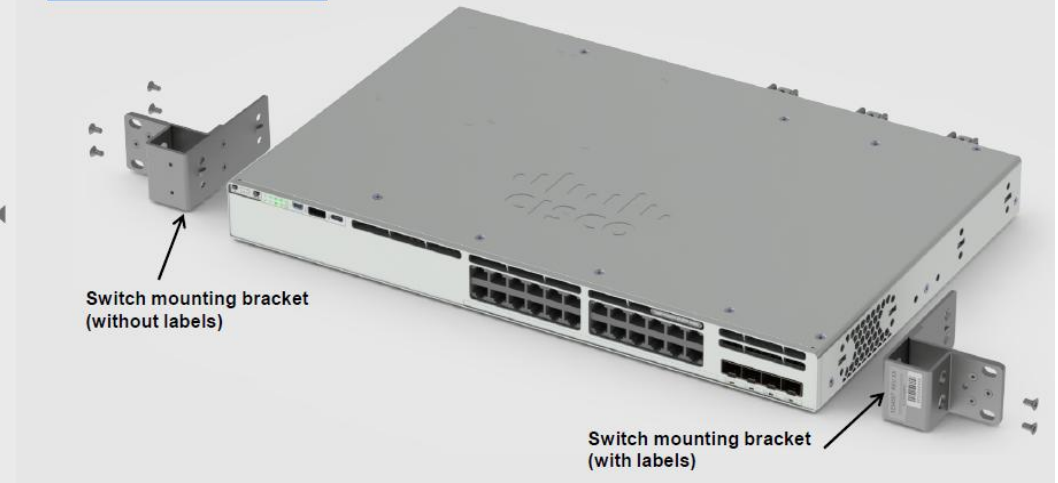




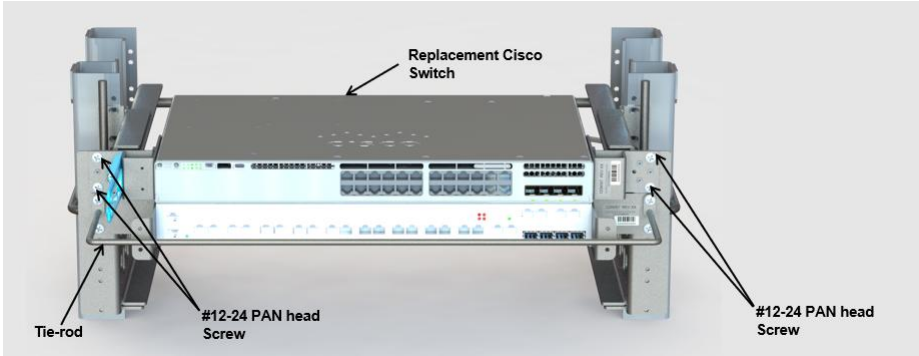
Figure 10: Default Interconnectivity Diagram (Eth04 used for Backup Provisioning Network)

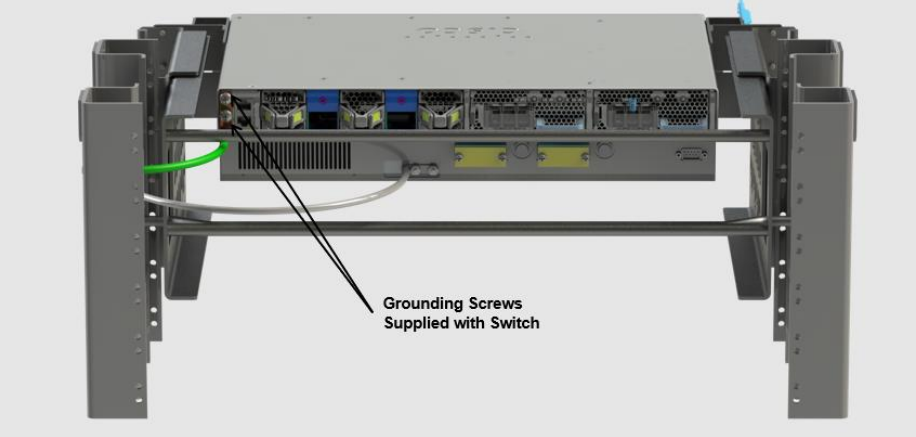

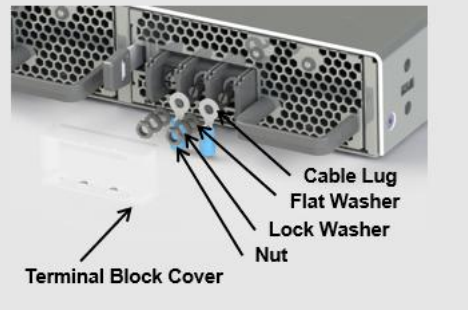
**SWITCH REPLACEMENT**

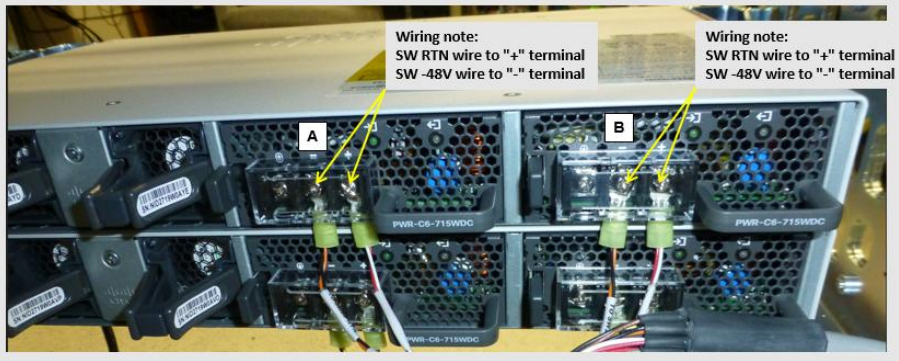
|  |   |
|--|---|
| <p>This procedure is for replacing the Telco switch with the Cisco switch.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p>  |   |
| <p><b>The following tools are required to perform this procedure:</b></p> <ul style="list-style-type: none"> <li>• Grounding Strap (Wrist or Heel)</li> <li>• #2 Phillips Screwdriver</li> <li>• #3 Phillips Screwdriver</li> <li>• 1/4" Nut Driver or Socket</li> <li>• 5/16" Nut Driver or Socket</li> <li>• Wire Cutter (to cut Tie-wraps)</li> <li>• Diagonal Cutter (to cut Tie-wraps)</li> <li>• Multi Meter</li> <li>• Tie Wraps</li> <li>• Electrical Tape</li> <li>• Cable Tags / Marker (to label all cables)</li> </ul> |   |
| <p><b>1.</b><br/>☐</p> <p>Disable and disconnect switch power</p>  | <ol style="list-style-type: none"> <li>a. At the fuse panel, locate the fuse positions for the switch being removed. To power down the Switch, remove the fuses for both A and B feeds.</li> <li>b. Once the switch is off, unscrew and remove the terminal-block insulator covers from both terminals blocks A and B.</li> <li>c. With covers removed, using a Multi Meter, ensure that there is no power.</li> <li>d. Ensure that the power leads are marked -48V &amp; RTN.</li> <li>e. With the cables marked, one at a time, remove the power cable and tape the terminal ring. Repeat these steps until all power connections are removed.</li> </ol> <div style="text-align: center;">  </div> <p>Note: This procedure will reference replacing the Switch #1 location (top). Same procedure for other switch locations.</p> |

|                                    |   |   |
|------------------------------------|---|---|
| <p>2. <input type="checkbox"/></p> | <p>Disconnect ground cable from switch</p>      | <p>a. Remove the Switch Ground Wire from the grounding point, by loosening and removing Hex nut, Flat washer, and External tooth washer.</p> <p>b. Leave Ground Wire dangling. Do not disconnect ground wire attached to cabinet/frame.</p> <p>Note: Hardware removed, nut and washers are NOT required on replacement switch.</p>    |
| <p>3. <input type="checkbox"/></p> | <p>Disconnect Front ENET and Console Cables</p> | <p>a. Make sure that all the cables are labeled and are in the correct position that they are terminated at. If not, ensure to mark or label before starting any removal.</p> <p>b. Disconnect the Console and Ethernet cables from Telco switch being replaced. Leave the cables dangling.</p> <p>c. (Optional) If cable management tie-rod is mounted to the switch being replaced, it may be necessary to cut or remove the cable-ties, holding the cables from the Tie-rod.</p>  |
| <p>4. <input type="checkbox"/></p> | <p>Remove the Switch being replaced</p>         | <p>a. Remove the four (4) PAN head screws (Two (2) on either side of the switch). If there is no support under the switch, take care to support the switch while removing the screws.</p> <p>b. Remove the Switch from the Eagle rack.</p> <p>c. Keep the screws safely set aside. Required for mounting the new switch.</p> <p>Note: If Tie-rod is attached via the screws being removed, then the Tie-rod needs to be set aside for reattachment when the replacement Switch is installed.</p>  |

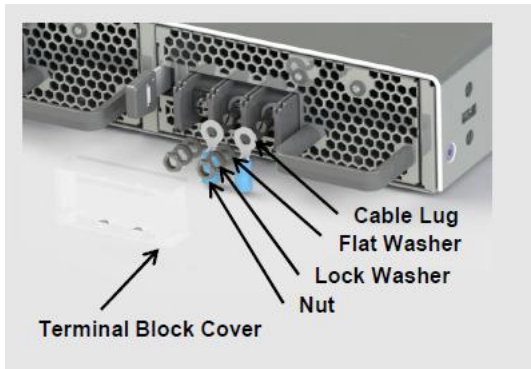
|  |  |  |
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|  |  |  |
| <p>5. <input type="checkbox"/> Assemble the replacement Cisco Switch</p> | <p>Attach the mounting brackets with Cisco switch assembly.</p>  <ol style="list-style-type: none"> <li>a. Locate the supplied mounting brackets and screws from the Switch package.</li> <li>b. Align the mounting bracket to the switch using four mounting holes.</li> </ol> <p>Note: Bracket with labels to be mounted on the right side of the switch.</p> <ol style="list-style-type: none"> <li>c. Insert four screws, supplied with each switch, and tighten.</li> </ol>  <ol style="list-style-type: none"> <li>d. Repeat the steps b and c for the other side of the switch.</li> <li>e. Attach optional Cable Manager. <ol style="list-style-type: none"> <li>I. Locate Cable Manager and Screw from replacement Switch packaging.</li> </ol> </li> </ol> |  |

|                                    |   |   |
|------------------------------------|---|---|
|                                    |   | <p>II. Attach the Cable Manager to the rack mounting bracket using the supplied screw.</p>    |
| <p>6. <input type="checkbox"/></p> | <p>Install replacement Cisco Switch</p> | <p>a. Align replacement Cisco Switch in the slot where the original switch was removed.</p>  <p>b. Using screws removed from step 4, insert the four (4) PAN head screws (Two (2) on either side of the switch) and tighten.</p> <p>Note: If tie-rod was removed in step 4, reattach at this time.</p> |
| <p>7. <input type="checkbox"/></p> | <p>Reattach the ground cable</p>        | <p>Reattach the chassis ground wire (from Step 3) to switch where shown. Use Screws provided with replacement Cisco Switch.</p>   |

|                                    |  |  |
|------------------------------------|--|--|
|                                    |  |  <p style="text-align: center;">Grounding Screws<br/>Supplied with Switch</p> <p>In Replacement Switch Container, locate grounding screw packet with PN 48-2381-01.</p>    |
| <p>8. <input type="checkbox"/></p> | <p>Connect power to the replacement Cisco Switch</p> | <p>a. Remove terminal block cover.</p>  <p>b. Remove Nuts and Washers from studs on A feed terminal block.<br/> c. Install the lugs from the power cable (A) to switch terminal block A.<br/> d. Secure the nuts after inserting flat washer and lock washer on top of the cable lug.<br/> e. Ensure connections to terminal block are as follows: <u>SW RTN wire to "+" terminal</u>, <u>SW - 48V wire to "-" terminal</u></p> |



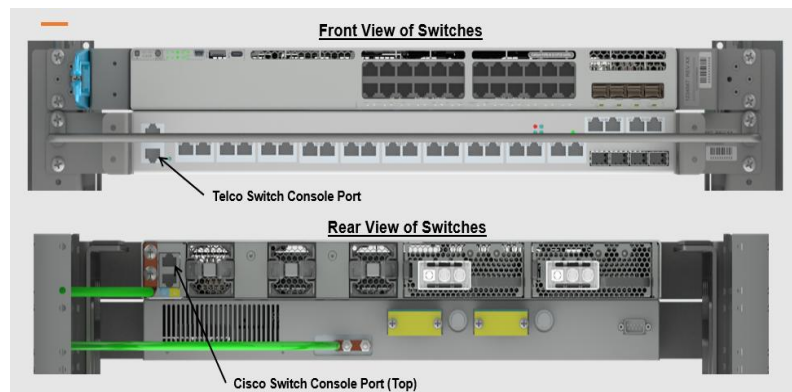
f. Reattach protective cover.



g. Repeat the above steps for the B feed connection.

9.  Reattach Console Cable and Ethernet Cables


a. Plug-in the console port cable to the Replacement Switch.



Note: The Console port on the New Cisco Switch is on the rear side where the power is applied.

b. Plug-in the Ethernet cables to Replacement Cisco Switch.

Note: The Switch locations are marked on cable from Step 3.

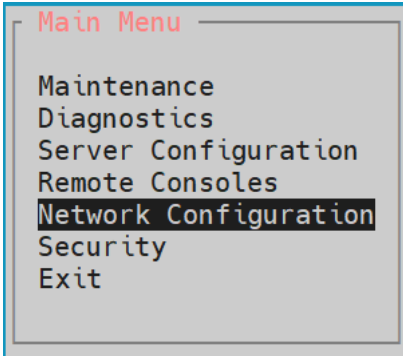
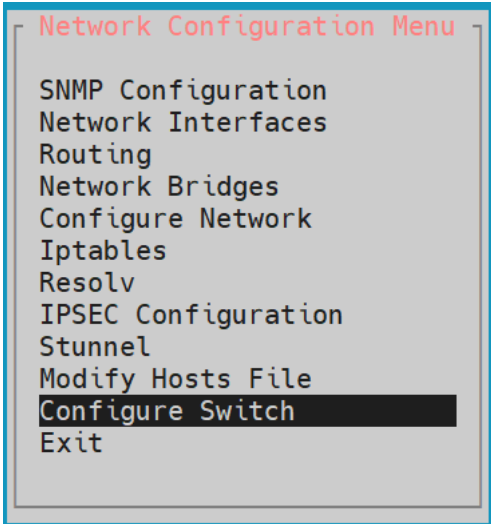
|                                     |                                |   |
|-------------------------------------|--------------------------------|---|
| 10<br>.<br><input type="checkbox"/> | Reapply power                  | <ul style="list-style-type: none"> <li>a. Double check all the connections are in their proper place and are secure.</li> <li>b. Reinstall the A and B feed power fuses (removed in Step 1) one at a time.</li> <li>c. Check the switch power supply LED to ensure power is up. Then, install the other fuse and again check power supply LED.</li> </ul> <p>The following image shows the switch is now ready to be set up and configured.</p>  <p>The replacement switch is now ready to be setup and configured.</p> |
| 11<br>.<br><input type="checkbox"/> | Configure the new Cisco Switch | Refer to the following procedure “Switch Configuration” to configure the new Cisco Switch.  |

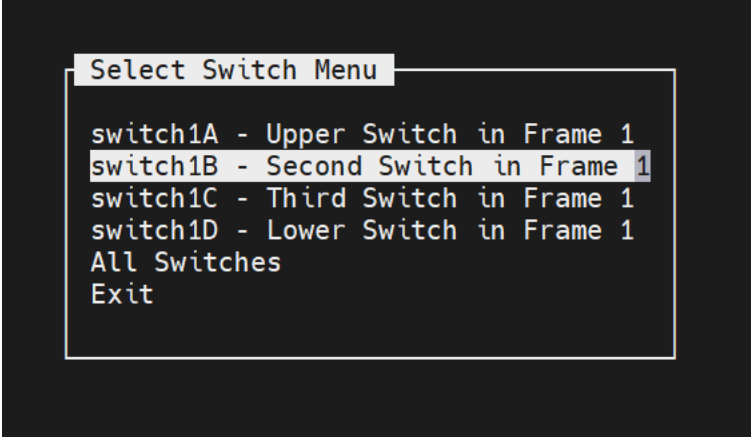


## CISCO SWITCH CONFIGURATION

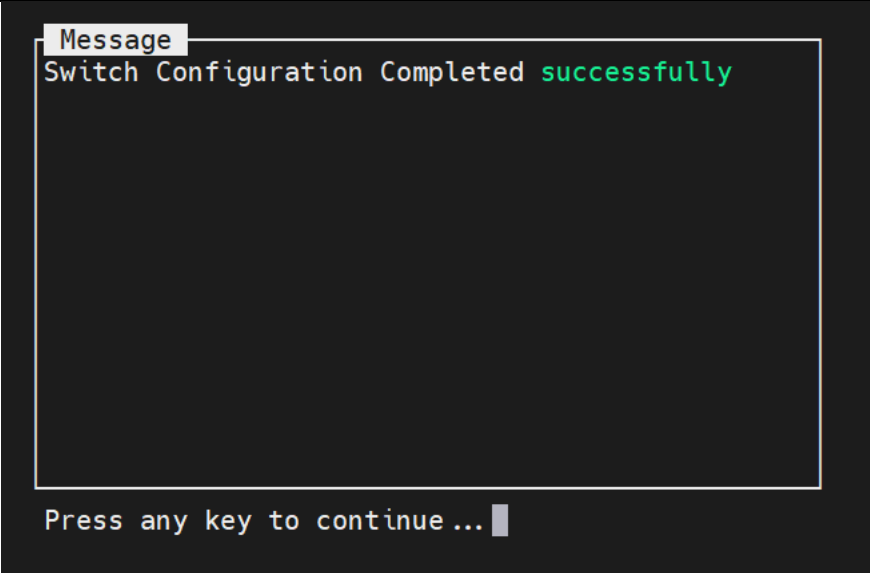
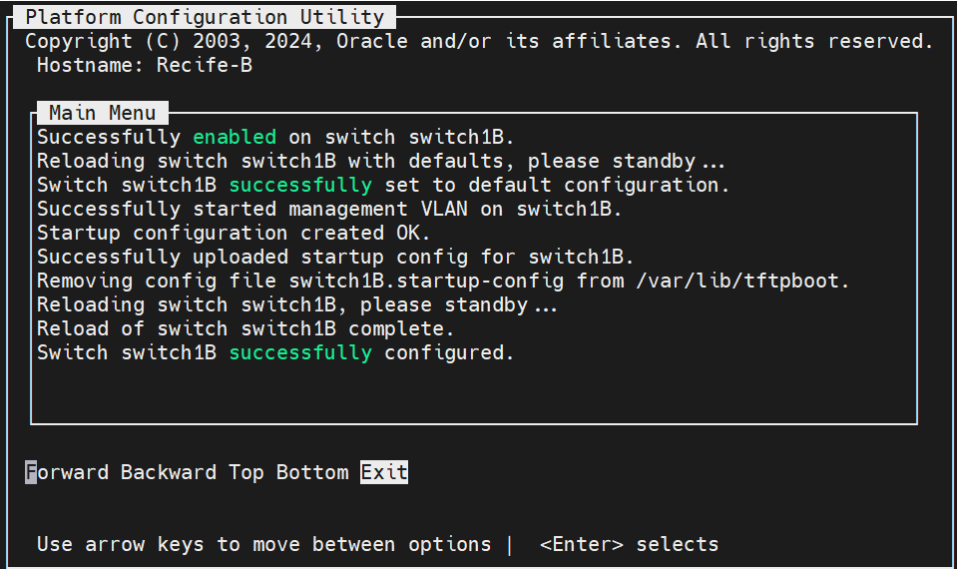
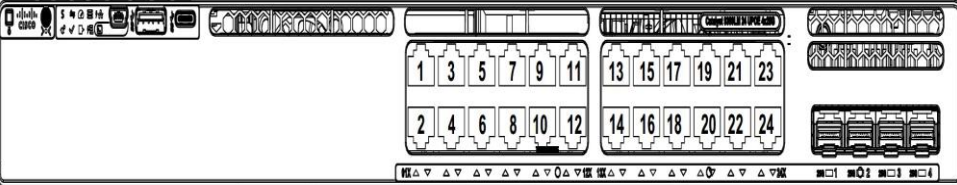
**Note: Contact My Oracle Support at least 48 hours before the scheduled start of the switch configuration process, to obtain the Enable secret key.**

|                                  |   |   |
|----------------------------------|---|---|
| <b>S<br/>T<br/>E<br/>P<br/>#</b> | <p>This procedure Configures the Cisco Switches on an Installed APPD EPAP Server Pair.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND ASK FOR ASSISTANCE.</p> |   |
| 1.<br><input type="checkbox"/>   | <p>Make the cross-over cable connections.</p>   | <p style="text-align: center;"><b>NOTE: THIS IS IMPORTANT</b></p> <p>CONNECT the cross-over cable from <b>Port 1 of Switch1A</b> to <b>Port 1 of Switch1B</b>.</p> <p>DISCONNECT the cross-over cable from <b>Port 2 of Switch1A</b> to <b>Port 2 of Switch1B</b>.</p> <p><b>Similarly while Configuring Switch1C and Switch1D Disconnect the cable from port 24 and connect back post configuration done.</b></p> <p>Please make a note that the switch configuration should only be attempted by a skilled technician and not all.</p> <p>All uplinks should be removed while switch configuration.</p> <p>There should not be any loop in the switches during their configuration.</p> <p>Switch1B must be configured first.</p> <p><b>NOTE: the following should be the sequence of switch configuration.</b><br/><b>Switch1B &gt; Switch1A &gt; Switch1C &gt; Switch1D</b></p> <p><b>Make sure to enable and start tftp service by using following commands if not started earlier :-</b><br/><b>sudo systemctl start tftp</b><br/><b>sudo systemctl enable tftp</b></p> |
| 2.<br><input type="checkbox"/>   | <p>Do minicom to enter the cisco switch console. Command – “minicom switch1A” for the console cable connected to MPS-A and for console cable connected to</p>   | <pre>[root@Donut-B epapall]# [root@Donut-B epapall]# minicom switch1B</pre>   |

|                                |   |   |
|--------------------------------|---|---|
|                                | MPS-B use "minicom switch1B".   |   |
| 3.<br><input type="checkbox"/> | <b>MPS X:</b> Do not enter in the initial config dialog in the freshly connected cisco switch.  | <b>Autoinstall will terminate if any input is detected on console</b><br><br><b>--- System Configuration Dialog ---</b><br><br>Would you like to enter the initial configuration dialog? [yes/no]:no  |
| 4.<br><input type="checkbox"/> | <b>MPS X:</b> Enter an Enable secret key :-<br><br><b>NOTE: Please note that this key is predetermined. If the key to be entered here is not known contact My Oracle support for assistance</b> | The enable secret is a password used to protect access to privileged EXEC and configuration modes. This password, after entered, becomes encrypted in the configuration.<br>-----<br>secret should be of minimum 10 characters and maximum 32 characters with at least 1 upper case, 1 lower case, 1 digit and should not contain [cisco]<br>-----<br>Enter enable secret:<br>Confirm enable secret:  |
| 5.<br><input type="checkbox"/> | <b>MPS X:</b> Press 0 and enter   | The following configuration command script was created:<br><br>enable secret 9<br>\$9\$/0zJZO.MDLzHsE\$OAPNpw6gMhNRkdv5.CjQnxF1.rJtyDBiTQ7F2/Nr1YU<br>!<br>end<br><br>[0] Go to the IOS command prompt without saving this config.<br>[1] Return back to the setup without saving this config.<br>[2] Save this configuration to nvram and exit.<br><br>Enter your selection [2]: 0<br>% You can enter the setup, by typing setup at IOS command prompt<br><br>Press RETURN to get started! |
| 6.<br><input type="checkbox"/> | <b>MPS X:</b> Initial configuration building done.  | Press RETURN to get started!  |
| 7.<br><input type="checkbox"/> | <b>MPS X:</b> Write "enable" and provide the password set in step 4   | Switch>enable<br><br>Password:  |
| 8.<br><input type="checkbox"/> | <b>MPS X:</b> Once the switch is enabled to take configuration >  | Switch>enable<br>Password:<br>Switch#   |

|     |   |  |
|-----|---|--|
|     | sign changes to the # sign  |  |
| 9.  | <input type="checkbox"/> <b>MPS X: Write command – “Configure terminal with no logging enabled”</b> | Switch#configure terminal<br>Enter configuration commands, one per line. End with CNTL/Z.<br>Switch(config)#no logging console<br>Switch(config)#exit<br>Switch#exit   |
| 10. | <input type="checkbox"/> <b>MPS X: Exit from the minicom</b>  | Ctrl+A and then Press Z. This will exit the minicom console and you will come back to the server terminal.   |
| 11. | <input type="checkbox"/> <b>MPS B: Navigate to the Network Configuration Menu.</b>                  | On the platcfg <b>Main Menu</b> , select <b>Network Configuration</b> and press [ENTER].<br><br> <pre> Main Menu ----- Maintenance Diagnostics Server Configuration Remote Consoles Network Configuration Security Exit </pre>  |
| 12. | <input type="checkbox"/> <b>MPS B: Navigate to the Configure Switch menu</b>                        | On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].<br><br> <pre> Network Configuration Menu ----- SNMP Configuration Network Interfaces Routing Network Bridges Configure Network Iptables Resolv IPSEC Configuration Stunnel Modify Hosts File Configure Switch Exit </pre> |
| 13. | <input type="checkbox"/> <b>MPS B: Select Switch1B.</b>   | On the Select Switch Menu, select <b>Switch1B – Second Switch in Frame 1</b> and press [ENTER].  |

|                              |  |   |
|------------------------------|--|---|
| <input type="checkbox"/>     |  |   |
| 14. <input type="checkbox"/> | <b>MPS B:</b> Confirm Switch 1B Configuration. | Select <b>Yes</b> and press <b>[ENTER]</b> to configure Switch 1B.<br>   |
| 15. <input type="checkbox"/> | <b>MPS B:</b> Switch Configuration Screen.     | Configuring the switch takes about 10 minutes, once completed press <b>any key</b> to continue and then click Exit.<br> |

|                          |  |  |
|--------------------------|--|--|
|                          |  | <br>  |
| <input type="checkbox"/> | <p>16. <b>MPS X:</b> Similarly need to configure all other connected cisco switches.</p>             | <p>Use the steps mentioned from step 2 - 15. Make sure to select the proper switch as per the switch location for eg Switch1A,switch1C etc.</p> <p><b>NOTE: the following should be the sequence of switch configuration.</b><br/> <b>Switch1B &gt; Switch1A &gt; Switch1C &gt; Switch1D</b></p> |
| <input type="checkbox"/> | <p>17. Connect the cross-over cable from <b>Port 2 of Switch1A</b> to <b>Port 2 of Switch1B</b>.</p> |    |

|  |  |   |
|--|--|---|
| <p>18.</p> <p><input type="checkbox"/></p> | <p>Ping to Confirm connectivity.</p> <p>Note: Ip address 192.168.2.1 associated with Switch1A , ip address 192.168.2.2 associated with Switch1B , ip address 192.168.2.3 with Switch1C and ip address 192.168.2.4 with Switch1D.</p> | <p>Ping from all the newly connected switches to the mentioned IP address (192.168.2.1, 192.168.2.2, 192.168.2.3, 192.168.2.4, 192.168.2.100, 192.168.2.200), till you see an 100% success rate.</p> <pre> switch1D#ping 192.168.2.1 Sending 5, 100-byte ICMP Echoes to 192.168.2.1, timeout 2 sec, delay 0 sec: Press Esc for break !!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms switch1D#ping 192.168.2.2 Sending 5, 100-byte ICMP Echoes to 192.168.2.2, timeout 2 sec, delay 0 sec: Press Esc for break !!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms switch1D#ping 192.168.2.3 Sending 5, 100-byte ICMP Echoes to 192.168.2.3, timeout 2 sec, delay 0 sec: Press Esc for break !!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms switch1D#ping 192.168.2.4 Sending 5, 100-byte ICMP Echoes to 192.168.2.4, timeout 2 sec, delay 0 sec: Press Esc for break !!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms switch1D#ping 192.168.2.100 Sending 5, 100-byte ICMP Echoes to 192.168.2.100, timeout 2 sec, delay 0 sec: Press Esc for break !!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 0/1/5 ms switch1D#ping 192.168.2.200 Sending 5, 100-byte ICMP Echoes to 192.168.2.200, timeout 2 sec, delay 0 sec: Press Esc for break !!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/0 ms switch1D# </pre> |
| <p>19.</p> <p><input type="checkbox"/></p> | <p>Procedure complete.</p>   | <p>Procedure is complete.</p>   |

## APPENDIX D CISCO SWITCH INSTALLATION

Follow steps 5 – 11 of [Appendix C](#) to install and configure Cisco Switch. Omit steps 1 – 4 as the Telco switch does not have to be replaced in case of a fresh installation.



## APPENDIX E CUSTOMER SIGN OFF

### Sign-Off Record

**\*\*\* Please review this entire document. \*\*\***

This is to certify that all steps required for the upgrade successfully completed without failure.

Sign your name, showing approval of this procedure, and email this page and the above completed Table to Oracle, email: [upgrades@tekelec.com](mailto:upgrades@tekelec.com).

**Customer: Company Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Site: Location:** \_\_\_\_\_

**Customer :(Print)** \_\_\_\_\_ **Phone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Start Date:** \_\_\_\_\_

**Completion Date:** \_\_\_\_\_

This procedure has been approved by the undersigned. Any deviations from this procedure must be approved by both Oracle and the customer representative. A copy of this page should be given to the customer for their records. The SWOPS supervisor will also maintain a signed copy of this completion for future reference.

**Oracle Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Customer Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## APPENDIX F MAJOR CHANGES IN EPAP 17.0

In EPAP Release 17.0, live provisioning is supported for upgrade of DUAL PDB site that is where Active and Standby PDB are present in the form of PDBonly EPAP or Mixed-EPAP.

**Note: In case of Dual PDBonly when Standby PDBA is successfully upgraded, connected and in sync with all the other nodes, perform switchover between Active Pdba and Standby Pdba.**

Following steps will be taken to support live provisioning:

1. Bring both PDBonly/Mixed-EPAP to same label, Check all counts (DN/IMSI/NE ...) are same. Stop provisioning briefly for 5 minutes to achieve the same.
2. Truncate the replLog and requests table. For more information, see step 6 of section A.26.
3. On the Active side keep the remote PDBA as it is i.e. Active PDBA has a remote PDBA. This will make sure replLog and request tables keeps updated when live provisioning will happen in the Active site during Standby side upgrade.
4. On the Standby side, make the remote PDBA as 0.0.0.0 i.e. Standby site does not have an Active PDBA. This is the site that will be upgraded.
5. Home the Non-PROVs to the Active PDBA.
6. Home the RTDB on Mixed EPAP towards its local PDBA  
**Note:** This step is not valid for Non-Prov and PDBonly sites.
7. Upgrade the Standby PDBA from 16.3/16.4 to 17.0
8. After the upgrade of Standby PDB is complete, change the remote PDBA address of Standby from 0.0.0.0 to the IP of Active PDBA. Start PDBA.
9. See that Standby PDBA syncs all the data from Active PDBA that was provisioned during upgrade.

**Note:** This Appendix is for reference only. Details mentioned in this Appendix are applied in [section 3.4.3](#) and [section 3.4.5](#).

