CAUTION: Use only the guide downloaded from the Oracle Technology Network (OTN) (http://www.oracle.com/technetwork/indexes/documentation/oracle-comms-tekelec-2136003.html). Before upgrading your system, access the My Oracle Support web portal (https://support.oracle.com) and review any Knowledge Alerts that may be related to the System Health Check or the Upgrade.

Before beginning this procedure, contact My Oracle Support and inform them of your upgrade plans. Refer to Appendix G for instructions on accessing My Oracle Support.
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1. INTRODUCTION

1.1 Purpose and Scope

This document describes methods utilized and procedures executed to perform a software upgrade on any in-service EAGLE-based STP to EAGLE Software Release 45.0, 45.1, 46.0, 46.1, 46.2, 46.3, 46.5, or 46.6 as well as any future maintenance releases. The audience for this document includes Oracle customers as well as these Oracle Communications EAGLE groups: Software Development, Product Verification, Technical Communications, and Customer Service including the Upgrade Center and New Product Engineering. This document provides step-by-step instructions to execute any upgrade to Release 45.0 and beyond.

See appropriate upgrade kit instructions/references for the software upgrade of peripheral equipment.

1.2 References

1.2.1 External

[1] EAGLE 45.0 and above Health Check Procedure, E54339, latest revision
[3] EAGLE 46.8 Database Administration – System Management, F11885, latest revision

1.2.2 Internal

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 personnel.

1.3 Software Release Numbering

To determine the correct GPL version numbers for the EAGLE® applications, refer to the appropriate internal release-mapping web tool or to the Release Notice located on My Oracle Support web portal. Appendix G describes how to access My Oracle Support web portal. For FOA releases or Engineering prototype releases, refer to internal references [6] in section 1.2.2.

Note: verifying the correct GPL versions, ensures that the system is being upgraded to the correct target software release.

1.4 Database Version Number

To determine the correct database version numbers for the EAGLE® release, refer to the appropriate internal release-mapping web tool. Appendix G describes how to access My Oracle Support web portal. For FOA releases or Engineering prototype releases, refer to internal references [6] in section 1.2.2.

1.5 Acronyms

Table 1. Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWA</td>
<td>Alternate Work Area</td>
</tr>
<tr>
<td>DDB</td>
<td>Dynamic Database</td>
</tr>
<tr>
<td>DDL</td>
<td>Dynamic Data Load</td>
</tr>
<tr>
<td>E5-MDAL</td>
<td>EAGLE Maintenance Disk and Alarm Card</td>
</tr>
<tr>
<td>E5-OAM</td>
<td>EAGLE Operation, Admission, &amp; Maintenance.</td>
</tr>
<tr>
<td>FAK</td>
<td>Feature Access Key</td>
</tr>
<tr>
<td>FOA</td>
<td>First Office Application</td>
</tr>
<tr>
<td>GA</td>
<td>General Availability</td>
</tr>
<tr>
<td>GLS</td>
<td>Generic Loading Service</td>
</tr>
<tr>
<td>GPL</td>
<td>Generic Program Load</td>
</tr>
<tr>
<td>GPSM</td>
<td>Legacy General Purpose Service Module</td>
</tr>
<tr>
<td>IMT</td>
<td>Interprocessor Message Transport</td>
</tr>
<tr>
<td>IS-NR</td>
<td>In Service - Normal</td>
</tr>
<tr>
<td>IS-ANR</td>
<td>In Service - Abnormal</td>
</tr>
<tr>
<td>KSR</td>
<td>Keyboard Send &amp; Receive</td>
</tr>
<tr>
<td>LA</td>
<td>Limited Availability</td>
</tr>
<tr>
<td>LIM</td>
<td>Link Interface Module</td>
</tr>
<tr>
<td>LNP</td>
<td>Local Number Portability</td>
</tr>
<tr>
<td>LSMS</td>
<td>Local Service Management System</td>
</tr>
<tr>
<td>MCPPM</td>
<td>Measurement Collection and Polling Module</td>
</tr>
<tr>
<td>MPS</td>
<td>Multi Purpose Server</td>
</tr>
<tr>
<td>MSD</td>
<td>Media Software Delivery</td>
</tr>
<tr>
<td>OAM</td>
<td>Operations Administration and Maintenance</td>
</tr>
<tr>
<td>OAP</td>
<td>Operations, Administration and Maintenance Applications Processor</td>
</tr>
<tr>
<td>OOS-MT</td>
<td>Out Of Service - Maintenance</td>
</tr>
<tr>
<td>RMD</td>
<td>Removable Media Drive/Disk such as USB</td>
</tr>
<tr>
<td>SAK</td>
<td>Software Access Key</td>
</tr>
<tr>
<td>SATA</td>
<td>Serial ATA</td>
</tr>
<tr>
<td>SEAS</td>
<td>Signaling Engineering and Administration System</td>
</tr>
<tr>
<td>SLIC</td>
<td>Service and Link Interface Card</td>
</tr>
<tr>
<td>SSD</td>
<td>Server Software Delivery</td>
</tr>
<tr>
<td>STP</td>
<td>Signal Transfer Point</td>
</tr>
<tr>
<td>TDM</td>
<td>Terminal Disk Module</td>
</tr>
<tr>
<td>TPS</td>
<td>Transactions Per Second (feature)</td>
</tr>
<tr>
<td>UHC</td>
<td>Upgrade Health Check</td>
</tr>
</tbody>
</table>
Terminology

Table 2. Terminology

<table>
<thead>
<tr>
<th>Backout (abort)</th>
<th>The process to take a system back to a Source Release prior to completion of upgrade and commitment to Target release. Includes restoration of source databases and system configuration.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDay</td>
<td>Date of the start of the maintenance window of the upgrade execution.</td>
</tr>
<tr>
<td>E5-OAM system</td>
<td>An EAGLE running with E5-MCAP &amp; E5-MDAL cards for front-end hardware.</td>
</tr>
<tr>
<td>Fixed disk based upgrade</td>
<td>An upgrade that uses the inactive partitions of the fixed disks as the workspaces to covert the data. With 9Gb and bigger hard drives, this is the expected method.</td>
</tr>
<tr>
<td>HHour</td>
<td>Hour at which the system enters upgrade phase 0 during upgrade execution.</td>
</tr>
<tr>
<td>Incremental upgrade</td>
<td>EAGLE: Upgrade to a maintenance release (external customers) or upgrade to a new build (internal test labs).</td>
</tr>
<tr>
<td>Intra-release upgrade</td>
<td>Any upgrade within a release; this includes incremental as well as full function upgrades where only the minor database version changes. Note: Intra-release upgrades are not covered by this document.</td>
</tr>
<tr>
<td>Intrusive Operation</td>
<td>Operation that impacts the redundancy of the system by isolation of the duplicate component.</td>
</tr>
<tr>
<td>Legacy system</td>
<td>An EAGLE running with GPSMII, TDM, &amp; MDAL cards for front-end hardware. This hardware is obsolete beginning in Release 45.0.</td>
</tr>
<tr>
<td>Non-intrusive Operation</td>
<td>Operation that collects data and does not impact the redundancy of the system.</td>
</tr>
<tr>
<td>Non-preserving upgrade</td>
<td>“Upgrade” that does not adhere to the standard goals of software upgrade methodology. The outcome of the execution is that the system is running on the Target Release; however the Source Release database was not preserved.</td>
</tr>
<tr>
<td>Rollback</td>
<td>The process to take a system from a Target Release back to a Source Release including preservation of databases and system configuration.</td>
</tr>
<tr>
<td>Session 0</td>
<td>This is a new set of tasks required in the Upgrade Health Check #2 timeframe. The work needs to be accomplished successfully prior to the execution of the upgrade.</td>
</tr>
<tr>
<td>Source release</td>
<td>Software release from which the system is upgraded.</td>
</tr>
<tr>
<td>Target release</td>
<td>Software release to which the system is upgraded.</td>
</tr>
<tr>
<td>Upgrade Media</td>
<td>The USB thumb drives for E5-MCAP systems</td>
</tr>
</tbody>
</table>

Table 3. Generic VS. E5-OAM Terminology

<table>
<thead>
<tr>
<th>Generic Term</th>
<th>E5-OAM Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive Slot</td>
<td>Thumb Drive on the E5-MCAP</td>
</tr>
<tr>
<td>Fixed Disk</td>
<td>Sata Drive</td>
</tr>
<tr>
<td>MASP</td>
<td>E5-MCAP</td>
</tr>
<tr>
<td>Removable media</td>
<td>Removable media</td>
</tr>
<tr>
<td>RMD</td>
<td>USB Thumb Drive</td>
</tr>
<tr>
<td>Upgrade media</td>
<td>USB Thumb Drive</td>
</tr>
</tbody>
</table>
1.6 Recommendations

1. It is recommended that command input and command-line/scroll-area output be captured during the execution of an upgrade. The preferred method is the use of two serial terminals; one used to enter commands and to echo to the second, which is set to capture all output except for traffic-related unsolicited messages. These terminals should be configured as KSR type. Another acceptable method is the use of one serial terminal, which has a terminal-emulation application that supports input/output capture. This terminal should be set to the KSR type. It is unacceptable to use a telnet terminal since it does not support the echo capability. Serial terminals are designated ports 1 – 16 and telnet terminal are designed ports 17 and above.

2. It is recommended that measurement collection be retrieved prior to upgrade execution because, if the MCPM or Intergrated Measurements features are not enabled, the data collected will not be persistent across the upgrade. Inhibiting measurements does NOT stop collection that is already in progress. OAM-based measurements are inhibited on the next cycle. It is recommended that time should be given to allow the current cycle to complete. Those procedures that inhibit measurements manually contain steps to ensure that current collection is complete.

3. It is recommended that the OAP terminals be turned down for SEAS-enabled systems and others with high OAP traffic. If OAP terminals are not inhibited, any database updates successfully entered during the period between the last database backup and Upgrade Phase 0 are lost if it becomes necessary to fall back to the source release using the spare E5-MASP.

4. It is recommended that the Measurements Platform NOT be shut down and the Measurement Collection and Polling Module (MCPM) cards NOT be inhibited.

5. It is recommended to issue the command in Procedure 8, Step 1 with the threshold type assigned to SET (Card Set network conversion method.) In addition, it is recommended that the card sets be created with the number of service card sets assigned to 2 and the number of link card sets to 4. The following command is issued in Procedure 8, Step 1:

   **ACT-UPGRADE: ACTI ON=CONVERTSTP: SRC=F I XED**

   Based on a system’s configuration and customer objectives, the SRVSETS and LIMSETS parameters of the CHG-UPGRADE-CONFIG comand may be adjusted. Refer to Appendix B.2 for the procedure to configure the Card Set network conversion method. If the network conversion phase of the upgrade is pushing the execution of the upgrade outside the maintenance window the configuration can be altered to reduce the execution time. Please go to Appendix G to contact support to determine the recommended course of action.

6. Although an IP telnet terminal may be configured, the terminal is not recommended for use in the upgrade process because it does not support echo and capture mode. Any application connected via a Telnet session through an IPSM card, should be configured for interruption during the upgrade. That application’s configuration procedure needs to be provided by the application’s manufacturer.

7. The following commands obtain the current system status. It is recommended that the following commands be run in order to obtain the current system status in the following situations: 1) prior to and completion of executing the upgrade, 2) the upgrade terminates prior to successful completion and 3) before re-starting the upgrade. The commands should be issued in addition to the diagnosis of the any terminating condition. This status is not complete and inclusive, additional commands, which are deemed relevant, can be run at that time.

   **REPT- STAT- SYS**
   **REPT- STAT- GPL: DI SPLAY=ALL**
   **REPT- STAT- CARD**
   **REPT- STAT- SLK**
   **REPT- STAT- TRBL**
   **RTRV- TRBL: NUM=25: LOC=<1113|1115>**
   **RTRV- STP**
   **ACT- UPGRADE: ACTI ON=DBSTATU S**
2. GENERAL DESCRIPTION

This document defines the step-by-step actions performed to execute a software upgrade of an in-service EAGLE® STP from the source release to the target release.

Figure 1 - Upgrade Process shows the general steps for all processes of performing a software upgrade, from hardware inventory to final upgrade health check.

Figure 1 - Upgrade Process

Table 4 contains a checklist of the steps required to successfully complete the upgrade process.

<table>
<thead>
<tr>
<th>Upgrade Process Task</th>
<th>Date completed</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware Inventory performed against Release Baseline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate Hardware ordered</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New hardware received</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Health Check performed <em>(15 days before upgrade)</em></td>
<td></td>
<td>[1]</td>
</tr>
<tr>
<td>Health Check #1 performed</td>
<td></td>
<td>[1]</td>
</tr>
<tr>
<td>System Health Check #1 output verified</td>
<td></td>
<td>[1]</td>
</tr>
<tr>
<td>Target Release Baseline Hardware installed</td>
<td></td>
<td>[Appendix B.1.]</td>
</tr>
<tr>
<td>Target Software Release download (via Electronic Software Distribution or Upgrade Media).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System Health Check #2 performed</td>
<td></td>
<td>[1]</td>
</tr>
<tr>
<td>Enter Upgrade Software Access Key</td>
<td></td>
<td>[Appendix C]</td>
</tr>
<tr>
<td>Configure Network Conversion Method</td>
<td></td>
<td>[Appendix B.2]</td>
</tr>
<tr>
<td>System Health Check #2 verified</td>
<td></td>
<td>[1]</td>
</tr>
<tr>
<td>Software Upgrade Session 1 completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Check #3 performed</td>
<td></td>
<td>[1]</td>
</tr>
<tr>
<td>Software Upgrade Session 2 completed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Upgrade Tasks to be completed

During the software upgrade execution, phase flags are displayed in the output messages to indicate upgrade progress. The output messages shown in this document are for example purposes only and do not display upgrade phase values unless a specific request to verify the phase is given, i.e., Procedure 6, step 15. The goal in doing this is to make this document describe the generic upgrade procedure.
Table 5. Phases of Upgrade Execution shows the phase flags displayed during the upgrade process. These flags are used to indicate the progress made by the upgrade function. The internal upgrade processing, which is initiated by the activate-upgrade command, controls these flags.

Table 5. Phases of Upgrade Execution

<table>
<thead>
<tr>
<th>Release Displayed</th>
<th>Phase Indicator(^1)</th>
<th>Conversion</th>
<th>Software Running</th>
<th>Database Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Phase 0</td>
<td>Database</td>
<td>Target</td>
<td>Source</td>
</tr>
<tr>
<td>Target</td>
<td>Phase 2</td>
<td>Database</td>
<td>Target</td>
<td>Target</td>
</tr>
<tr>
<td>Target</td>
<td>Phase 3</td>
<td>Network</td>
<td>Target</td>
<td>Target</td>
</tr>
</tbody>
</table>

\(^{1}\) Over the evolution of the upgrade process, Phase 1 is considered an error state.
3. UPGRADE OVERVIEW
This section provides a brief overview of the recommended method for upgrading the source release software that is installed and running on an EAGLE® STP to the Target Release software. The basic upgrade process and approximate time frame is outlined in Table 6. Upgrade Readiness Activities, Table 7. Pre-Upgrade Execution Activities, Table 8. Upgrade Execution Overview and Table 9. Post Upgrade Overview with the backout procedure shown in Table 10. Backout Procedure Overview.

It is assumed that upgrade of peripheral(s) is coordinated with and executed in parallel with the EAGLE upgrade to ensure that all work is performed within the maintenance window. Note that several variables affect the upgrade times shown in the tables – the timing values shown are estimates only.

The EAGLE has no known restriction that would prevent the upgrading of any peripheral in parallel with it.

3.1 Required Materials
1. One (1) source release system removable media.
2. One (1) target-release upgrade media for MSD or FTP server for remote download.
3. A valid EAGLE login ID and password with all user privileges enabled.
4. One (1) spare fixed disk at the source release: required in the event of recovery.
5. Capability to capture data via a printer, PC, or modem to allow remote access for My Oracle Support personnel.
6. List of GPLs from section 1.3 should be kept on hand for reference throughout the upgrade or refer to Appendix G to locate the Release Notice on My Oracle Support web portal.
7. The Software Access Key (SAK) must be available and entered (this activity should be done during the same maintenance window as the upgrade health check #2.)

3.2 Upgrade Preparation Overview
The activities listed in Table 6 need to be accomplished successfully prior to the maintenance window in which the upgrade is to be executed in. A day is equivalent to the period of time between scheduled maintenance windows.

<table>
<thead>
<tr>
<th>Session / Phase</th>
<th>Time Frame</th>
<th>Activity</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>UHC #1</td>
<td>Dday – 7</td>
<td>Upgrade Health Check # 1</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Session 0</td>
<td>Dday – 2</td>
<td>Target Release Software Download</td>
<td>Intrusive (format-disk, OAM boot)</td>
</tr>
<tr>
<td>UHC #2</td>
<td>Dday – 2</td>
<td>Upgrade Health Check # 2</td>
<td>Intrusive (H/W swap, IMT bus)</td>
</tr>
<tr>
<td>Session 0</td>
<td>Dday – 2</td>
<td>Configure Card-Set Network Conversion Method</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Session 0</td>
<td>Dday – 2</td>
<td>Entering Upgrade Software Access Key</td>
<td>Non-intrusive</td>
</tr>
</tbody>
</table>

Table 6. Upgrade Readiness Activities
3.3 Pre-Upgrade Overview

The pre-upgrade procedures, shown in Table 7, may be optionally executed prior to entering the maintenance window. All of these activities are completed during Session 1.

<table>
<thead>
<tr>
<th>Session / Phase</th>
<th>Time Frame</th>
<th>Activity</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Phase 0</td>
<td>Hhour – 2</td>
<td>Verify Pre-Upgrade Requirements and Capturing Upgrade Data</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Pre-Phase 0</td>
<td>Hhour – 2</td>
<td>Retrieve System’s Node-Level Processing Option Indicators</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Pre-Phase 0</td>
<td>Hhour – 2</td>
<td>Backing Up the Database</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Pre-Phase 0</td>
<td>Hhour – 1</td>
<td>Updating the Source Release Spare E5-MASP</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Pre-Phase 0</td>
<td>Hhour – 1</td>
<td>Verifying All Database</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Pre-Phase 0</td>
<td>Hhour</td>
<td>Inserting Target Release System Removable Media</td>
<td>Non-intrusive</td>
</tr>
</tbody>
</table>

Table 7. Pre-Upgrade Execution Activities

3.4 Upgrade Execution Overview

The procedures, shown in Table 8, are executed in the maintenance window.

<table>
<thead>
<tr>
<th>Session / Phase</th>
<th>Time Frame</th>
<th>Activity</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Phase 0</td>
<td>Hhour</td>
<td>Retrieve measurements data reports</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Phase 0</td>
<td>Hhour</td>
<td>Initializing Front-End to Run in the Target Release</td>
<td>Intrusive</td>
</tr>
<tr>
<td>Phase 0</td>
<td>Hhour</td>
<td>Verifying all Databases</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Phase 0 &amp; 2</td>
<td>Hhour</td>
<td>OAM Conversion</td>
<td>Intrusive</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Hhour</td>
<td>Network Conversion</td>
<td>Intrusive</td>
</tr>
</tbody>
</table>

Table 8. Upgrade Execution Overview
The procedures, shown in Table 9. Post Upgrade Overview, are executed in the maintenance window.

<table>
<thead>
<tr>
<th>Session / Phase</th>
<th>Time Frame</th>
<th>Activity</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 3</td>
<td>Hhour + 3</td>
<td>Completing Upgrade/Return to Full Function Mode.</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Post-upgrade</td>
<td>Hhour + 3</td>
<td>Backing Up Converted Database</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Session 2</td>
<td>Dday + 2</td>
<td>Upgrading Removable Media</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Session 2</td>
<td>Dday + 2</td>
<td>Backing Up Fixed Disk</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Session 2</td>
<td>Dday + 2</td>
<td>Upgrade Spare Fixed Disk.</td>
<td>Intrusive</td>
</tr>
<tr>
<td>Session 2</td>
<td>Dday + 2</td>
<td>Verifying All Databases</td>
<td>Non-intrusive</td>
</tr>
</tbody>
</table>

Table 9. Post Upgrade Overview

3.5 Backout Procedure Overview

The procedures, shown in Table 10. Backout Procedure Overview, are executed in the maintenance window.

<table>
<thead>
<tr>
<th>Session / Phase</th>
<th>Time Frame</th>
<th>Activity</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 0 - 3</td>
<td>Hhour</td>
<td>Load and Run Source OAM</td>
<td>Non-intrusive</td>
</tr>
<tr>
<td>Phase 0 - 3</td>
<td>Hhour</td>
<td>Full fallback using Fixed Disk as OAM conversion workspace – Case 1 Or Full fallback using Fixed Disk as OAM conversion workspace – Case 2 Or Full fallback using Fixed Disk as OAM conversion workspace – Case 3</td>
<td>Intrusive</td>
</tr>
<tr>
<td>Phase 0 - 3</td>
<td>Hhour</td>
<td>Network Conversion to Source Release</td>
<td>Intrusive</td>
</tr>
</tbody>
</table>

Table 10. Backout Procedure Overview
4. **UPGRADE PREPARATION**

- Perform hardware inventory to identify any hardware not supported by the target release baseline.
- Bring all non-supported hardware up to baseline (to be coordinated with My Oracle Support personnel).
- Perform pre-upgrade system health checks to establish that the system is fit to upgrade.
- Download target release software if necessary (E5-MASP) or capability available.
- Configure network conversion to use Card-Set method.
- Enter upgrade Software Access Key (SAK).

4.1 **Hardware Upgrade Preparation**

Before the upgrade execution, the customer site should have three source-release fixed drives (E5-TDMs \ Sata fixed drives) and at least one source-release removable media (two if using SSD). If MSD, a target-release upgrade media drive (USB drives for E5-MASP systems) must be created as outlined in appendix B1 before the upgrade. Before the target release installation, the spare equipment inventory should be as shown in Table 11 and Table 12.

**Table 11. Equipment Inventory before Upgrade if media software delivery (MSD)**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>In-service</th>
<th>Spare</th>
<th>Upgrade</th>
<th>Totals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source-release fixed drives</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Source-release removable media</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Target-release fixed drives</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Target-release upgrade media</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table 12. Equipment Inventory before Upgrade if server software delivery (SSD)**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>In-service</th>
<th>Spare</th>
<th>Upgrade</th>
<th>Totals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source-release fixed drives</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Source-release removable media</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Target-release fixed drives</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Target-release upgrade media</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

During the procedure, both the active and standby in-service source-release E5-TDMs are converted to the target release and the spare is reserved in case a fallback to the source release is required. Upon completion of the procedure, the spare equipment should be as shown in Table 13 and Table 14. **NOTE:** the spare E5-TDM and source-release RMDs are upgraded to the target release in the second session. This allows a soak period for the target release and the possibility to fallback to the source release.

**Table 13. Spare Equipment after Upgrade if media software delivery (MSD)**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>In-service</th>
<th>Spare</th>
<th>Upgrade</th>
<th>Totals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source-release fixed drives</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Source-release removable media</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Target-release fixed drives</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Target-release upgrade media</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 14.  Spare Equipment after Upgrade if server software delivery (SSD)

<table>
<thead>
<tr>
<th>Equipment</th>
<th>In-service</th>
<th>Spare</th>
<th>Upgrade</th>
<th>Totals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source-release fixed drives</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Source-release removable media</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Target-release fixed drives</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Target-release upgrade media</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

4.2 Software Upgrade Preparation

In releases 45.x and 46.0, it is necessary for the customer to obtain a Software access Key (SAK) from Oracle to perform the upgrade; the SAK should be entered during System Health Check #2 (see Appendix C). The SAK is used in the validation of the target release software. In release 46.1 and higher, it is not necessary for the customer to obtain a SAK. Also, the target release software needs to be loaded onto the inactive partition of the E5-TDMs (see Appendix B). The release can either be downloaded from the E5-MASP upgrade media (USB drive) or via an FTP server. In order to utilize this software download capability via an FTP server, the EAGLE must have an IPSM Card installed in the system. See General Description section for general steps and timeline associated with the upgrade process.
5. SOFTWARE UPGRADE PROCEDURE

Call the Oracle support hotlines [see Appendix G] prior to executing this upgrade to ensure that the proper media are available for use.

Before upgrade, users must perform the EAGLE system health check [1]. This check ensures that the system to be upgraded is in an upgrade-ready state. Performing the system health check determines which alarms are present in the system and if upgrade can proceed with these alarms.

**** WARNING ****

If there are cards in the system, which are not in IS-NR state, these cards should be brought to the IS-NR before the upgrade process is started. If it is not possible to bring the cards IS-NR, contact My Oracle Support [see Appendix G]. If any card cannot be brought in-service, the card should be inhibited after entering Phase 2 (during procedure 8). If any GLS card is in OOS-MT or IS-ANR state, none of the SCCP or LIM cards will load. If any LIM card is in OOS-MT state, this will prohibit the STPLAN cards from loading. The sequence of upgrade is such that cards providing support services to other cards will be upgraded first.

**** WARNING ****

Do not start the upgrade process without the required spare equipment; without spare equipment, recovery procedures cannot be executed!

Please read the following notes on upgrade procedures:

1. Procedure completion times shown here are estimates. Times may vary due to differences in database size, user experience, and user preparation.
2. Command steps that require user entry are indicated with white-on-black step numbers.
3. The shaded area within response steps must be verified in order to successfully complete that step.
4. Where possible, EXACT command response outputs are shown. EXCEPTIONS are as follows:
   • Banner information is displayed in a format form only.
   • System-specific configuration information such as card location, terminal port # assignments, and system features.
   • ANY information marked with “XXXX” or “YYYY.” Where appropriate, instructions are provided to determine what output should be expected in place of “XXXX or YYYY”
5. After completing each step and at each point where data is recorded from the screen, a check box should be provided.
6. Captured data is required for future support reference.
7. Each procedural step is numbered chronologically within each procedure.
5.1 Software Upgrade Execution – Session 1

Procedure 1: Verifying Pre-Upgrade Requirements and Capturing Upgrade Data

<table>
<thead>
<tr>
<th>STEP</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complete pre-upgrade tasks (All tasks in Table 15 must be completed before continuing.)</td>
</tr>
</tbody>
</table>

Table 15. Pre-Upgrade Requirements

<table>
<thead>
<tr>
<th>√</th>
<th>Tasks to be completed prior to upgrade execution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Perform hardware inventory.</td>
</tr>
<tr>
<td></td>
<td>Verify that all target-release baseline hardware has been installed. And any obsolete hardware has been replaced.</td>
</tr>
<tr>
<td></td>
<td>Verify that a full complement of EAGLE® spares is available, including a source-release fixed disk. <strong>Note:</strong> This fixed disk’s database should have been repaired in Upgrade Health Check [1].</td>
</tr>
<tr>
<td></td>
<td>Verify that you have at least one source-release RMD with an up-to-date database. <strong>Note:</strong> This drive’s database should have been backed up in Upgrade Health Check [1].</td>
</tr>
<tr>
<td></td>
<td>Verify that you have one target-release upgrade media drives provided by Oracle for upgrade Or Target-Release software has been downloaded to the inactive disk partitions (see section 4.2)</td>
</tr>
<tr>
<td></td>
<td>Verify that you have a copy of the Target Release’s System Release Notes (see section 1.3.)</td>
</tr>
<tr>
<td></td>
<td>Verify that an EAGLE system health check has been performed and the output capture file has been validated by <a href="#">My Oracle Support</a>.</td>
</tr>
<tr>
<td></td>
<td>Perform upgrade time calculations to ensure that the upgrade can be completed within the window.</td>
</tr>
<tr>
<td></td>
<td>Collect all measurement reports.</td>
</tr>
<tr>
<td></td>
<td>Verify that all required documentation is included in the upgrade kit. [See section 4.2]</td>
</tr>
</tbody>
</table>
### Procedure 1: Verifying Pre-Upgrade Requirements and Capturing Upgrade Data

2. **Issue the command to display terminal status.**

   ```
   rtrv-trm
   ```
### Procedure 1: Verifying Pre-Upgrade Requirements and Capturing Upgrade Data

1. **Response to retrieve terminal command is displayed.**

   ![Response](image)

2. **Record the terminals in the TRM column that have TYPE of PRINTER.** Also record the terminal being used to enter commands (the user terminal) or terminals used by external applications that issue commands to the EAGLE.

   ![Response](image)

3. **Capture terminals in the TRM column that have TYPE of PRINTER.** Also record the terminal being used to enter commands (the user terminal) or terminals used by external applications that issue commands to the EAGLE.

   ![Response](image)

4. **See recommendation #1 & #6 in section 1.6**

   **If not echoing to the printer or KSR, go to step 8.**

5. **Record the initial output group configurations for the user’s and capture terminals.** Also, record the user’s TMOUT value.

   ![Response](image)

6. **Echo command input to capture terminal.**

   ![Response](image)

7. **Response to activate command is displayed.**

   ![Response](image)

8. **If capture terminal’s output groups are not all set to YES, issue the change terminal command.**

   ![Response](image)

9. **Response to change terminal command is displayed.**

   ![Response](image)

---

2 Terminals with type equal to KSR as well as type equal to printer, which are configured, need to be recorded. Terminal being used to capture cannot be a Telnet terminal, see recommendation #6 in section 1.6.

3 The user terminal cannot be a Telnet terminal, see recommendation #6 in section 1.6.

4 If an external application is connected via a Telnet terminal on an IPSM card, see recommendation #6 in section 1.7.

5 If the system displays continuous UAMs and the source of the UAMs are known issues, turn off the associated output groups to limit the information sent to printer/KSR terminal port.
Procedure 1: Verifying Pre-Upgrade Requirements and Capturing Upgrade Data

8. If the output group and timeout on the user terminal are not set correctly, issue the command to change terminal timeout and display groups.
   
   chg-trm trm=USER: al=no: sa=yes: sys=yes: db=yes: dbg=yes: tmout=0
   (Where the value of USER is the user terminal number shown in Step 3)

9. Response to change terminal command is displayed.
   
   Response to change terminal command is displayed.
   
   chg-trm trm=USER: sa=yes: sys=yes: db=yes: dbg=yes: tmout=0
   Command entered at terminal #10.

10. Issue the command to display the system features
    
    rtrv-feat

11. Response to retrieve features command is displayed.
    
    Response to retrieve features command is displayed.
    
    rtrv-feat
    
    EAGLE FEATURE LIST
    
    GTT = on      GWS = on      NRT = off
    X25G = off     LAN = on      CRMD = off
    SEAS = off     LFS = off     MTPRS = off
    FAN = on       DSN5000 = off  VAP = off
    CNCF = off     TLNP = off     SCCPCNV = off
    TCAPCNV = off   PI SUP = off  X252000 = off
    PLNP = off     I TUP = off    X25PRI = on
    SL50CB = off   EGTT = on     VGT = on
    MPC = on       ITUDP = on    MEASPLAT = on
    TSCSYNC = off  ESI S = off

12. Issue the command to display the FAK features.
    
    rtrv-ctrl-feat

13. Response to retrieve command is displayed.
    
    Response to retrieve command is displayed.
    
    rtrv-ctrl-feat
    
    Feature Name              Partnum   Status Quantity
    The following features have been permanently enabled:
    
    FEATURE_A
    FEATURE_B
    The following features have been permanently enabled:
    
    FEATURE_A
    FEATURE_B

    Feature Name              Partnum   Status Quantity Trial Period Left
    Zero entries found.

    Feature Name              Partnum
    Zero entries found.

14. Issue the command to display the system serial number.
    
    rtrv-serial-num

15. Response to retrieve command is displayed.
    
    System serial number = nt00009999
    System serial number is locked.

16. Issue the command to retrieve records from the event log.
    
    (Where YYMMDD is today’s date and HHMMSS is one hour ago.)
    (Where XXX, YYY, and NNN are the values listed in Table 16.)
Procedure 1: Verifying Pre-Upgrade Requirements and Capturing Upgrade Data

17 Response to retrieve command is displayed.
   Determine if the report termination reason meets the pass/fail criteria in Table 17.

18 Repeat steps 16-17 for all sets of UAMs listed in Table 16.

Table 16. DDL-Hunt-related UAM ranges.

<table>
<thead>
<tr>
<th>SNUM</th>
<th>ENUM</th>
<th>NUM</th>
<th>UAM Text*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Start UAM</td>
</tr>
<tr>
<td>200</td>
<td>200</td>
<td>15</td>
<td>RCVRY-LFK: link available</td>
</tr>
<tr>
<td>236</td>
<td>236</td>
<td>15</td>
<td>REPT-LFK: not aligned</td>
</tr>
<tr>
<td>264</td>
<td>275</td>
<td>50</td>
<td>REPT-LINK-CGST: congestion level X to Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RCVRY-LINK-CGST: congestion has cleared</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>REPT-LINK-CGST: discard level X to Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RVCRRY-LINK-CGST: discard has cleared</td>
</tr>
<tr>
<td>311</td>
<td>313</td>
<td>50</td>
<td>DPC is prohibited</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DPC is restricted</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DPC is allowed</td>
</tr>
<tr>
<td>314</td>
<td>316</td>
<td>50</td>
<td>Route is prohibited</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Route is restricted</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Route is allowed</td>
</tr>
</tbody>
</table>

* - For the description of these UAMs, see External Reference [2]

Table 17. Retrieve Log Termination Pass/Fail Criteria:

<table>
<thead>
<tr>
<th>Termination Reason</th>
<th>Pass/Fail</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>- no records found within specified range</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>- X records displayed (where X is less then NUM.)</td>
<td>Pass</td>
<td></td>
</tr>
<tr>
<td>- max. or num= count reached</td>
<td>Further Analysis Required</td>
<td>See Appendix, D.2</td>
</tr>
</tbody>
</table>

Response to retrieve command is displayed.

Card 1113; SYS REL= 35.1.0-36.31.0; STP CLLI = tkfcl1190601; Timezone= EST

<table>
<thead>
<tr>
<th>yyyy-mm-dd hh:mm:ss TTTT PPP</th>
<th>XX.x.x.x.x.y.y</th>
<th>Card 1113; SYS REL= 35.1.0-36.31.0; STP CLLI = tkfcl1190601; Timezone= EST</th>
</tr>
</thead>
<tbody>
<tr>
<td>06-09-19 10:49:46****</td>
<td></td>
<td>Eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x.yy</td>
</tr>
</tbody>
</table>
Procedure 2: Backing Up the Database

This procedure backs up the active current database to the fixed disk and the removable media. This procedure is required to retain changes made by this upgrade process and match the distributed network database.

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

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

1. **Issue the command to display database status.**
   ```
   rept-stat-db
   ```

2. **Response from the command is displayed.**
   - Check that the command output includes the following details:
     - DATABASE STATUS: OK
     - FD BKUP: Y
     - FD CRNT: Y
     - RD BKUP: Y
     - USB BKP: -

3. **Issue the command to back up the database.**
   ```
   chg-db: action=backup
   ```

4. **Response to backup command is displayed.**
   - Command execution time: approximately 4 – 20 minutes, longer for large databases.
   ```
   eaglstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y
   ```

5. **Insert the RMD containing the source release into the drive slot.**
   Wait for the RMD to be detected by the system.

6. **Issue the Change-Database command to back up the database to RMD.**
   ```
   chg-db: action=backup: dest=remove
   ```

7. **Response to backup command is displayed.**
   ```
   eaglstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y
   ```
Procedure 2: Backing Up the Database

8. Issue the command to copy the GPLs to RMD.
   copy-gpl

9. Response to copy command is displayed.
   eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y
   Command entered at terminal #10.
   ;
   eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y
   COPY GPL: MASP A - COPY STARTS ON ACTIVE MASP
   COPY GPL: MASP A - COPY TO REMOVABLE CARTIDGE COMPLETE
   ;

10. Issue the command to report database status.
    rept-stat-db

11. Response to database status command is displayed.
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y
    DATABASE STATUS: => OK <=
    TDM 1114 (STDBY)   C LEVEL   TIME LAST BACKUP
    FD BKUP Y       XXX Y-YY-MM DD hh:mm:ss TTTT Y   XXX YY-MM DD hh:mm:ss TTTT
    FD CRNT Y       XXX          Y       XXX
    MCAP 1113        MCAP 1115
    RD BKUP -        -        -        -        -        -        -        -
    USB BKP -        -        -        -        -        -        -        -

12. Issue the command to display GPL status.
    rtrv-gpl

13. Response from the retrieve command is displayed.
    eaglestp YY-MM-DD hh:mm:ss EST EAGLE XX.x.x.x-YY.y.y
    GPL Auditing ON
    GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL
    GGGGGG1 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG1 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG1 1113 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG2 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG2 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG2 1113 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG3 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG3 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG3 1113 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG4 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG4 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG4 1113 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG5 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG5 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG5 1113 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG6 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG6 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX
    GGGGGG6 1113 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX

14. Remove the Source-Release RMD.
    Store the RMD in a safe location.
### Procedure 3: Updating the Source-Release Spare Fixed Disk

This procedure backs up the active current database to the spare fixed disk to ensure that a valid recovery spare is available.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the report card status command. &lt;br&gt;<code>rept-stat-card: appl=oam</code></td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed.  &lt;br&gt;Record the card locations of both MASPs as well as the part number of the E5-MASP: &lt;br&gt;Act E5-MASP ________  &lt;br&gt;p/n _________________  &lt;br&gt;Stby E5-MASP _______  &lt;br&gt;p/n _______________</td>
</tr>
<tr>
<td>3</td>
<td>Place spare E5-MASP in system.  &lt;br&gt;Record the part number for the spare E5-TDM:  &lt;br&gt;p/n _______________  &lt;br&gt;☐ Slide the MASP H/S switch (SW3) on the standby MASP up to the unlocked position (Wait for all drive LEDs to transition to a steady blue).  &lt;br&gt;☐ Remove the standby E5-MASP card determined in step 2.  &lt;br&gt;☐ Insert the spare E5-MASP card.  &lt;br&gt;☐ Slide the MASP H/S switch (SW3) on the new standby MASP down to the locked position (Wait for the MASP H/S LED to transition from blinking blue to off and the MASP to come up in standby mode).  &lt;br&gt;Note: UAMs are generated during this step. An audible alarm is generated.  &lt;br&gt;Wait for the new standby MASP to come up in standby mode and system returns to duplex mode.</td>
</tr>
<tr>
<td>4</td>
<td>Issue the report status command for the standby MASP.  &lt;br&gt;<code>rept-stat-card: loc=xxxx: mode=full</code>  (Where xxxx is the STBY MASP slot from step 2 above)</td>
</tr>
<tr>
<td>5</td>
<td>Verify that the backup goes to IS-NR  &lt;br&gt;<code>eagle estp YYYY-MM-DD hh:mm:ss 1111 PPP XX.x.x.x-yy.yy.y.y 11111111111111 PPP XX.x.x.x-yy.yy.y.y 11111111111111</code>  &lt;br&gt;CARD VERSI ON TYPE GPL PST SST AST  &lt;br&gt;ALARM STATUS = No Al arms.  &lt;br&gt;BLINCAP GPL version = XXX-XXX-XXX  &lt;br&gt;IM BUS A = Conn  &lt;br&gt;IM BUS B = Conn  &lt;br&gt;MBD BIP STATUS = Val id  &lt;br&gt;MOTHER BOARD I D = E5-MCAP  &lt;br&gt;DBD STATUS = Val id  &lt;br&gt;DBD TYPE = 1G ENET  &lt;br&gt;DBD MEMORY SIZE = 4096M  &lt;br&gt;HW VERI FICATION CODE = ----  &lt;br&gt;CURRENT TEMPERATURE = 33C (92F)  &lt;br&gt;PEAK TEMPERATURE = 37C (99F) [ 13-05-19 08:02]  &lt;br&gt;TROUBLE TEXT VER. = ----  &lt;br&gt;PLNK STATUS =  &lt;br&gt;PLNK IPADDR STATUS PST  &lt;br&gt;A 192.168.53.89 UP IS-NR  &lt;br&gt;Command Compl et ed.</td>
</tr>
</tbody>
</table>

---

*The spare E5-MASP should be the one verified by upgrade Health Check #2, see section 1.2.1 ref [1].*
### Procedure 3: Updating the Source-Release Spare Fixed Disk

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Issue the command to retrieve GPL versions.</td>
</tr>
</tbody>
</table>
| 7    | Response from the retrieve command is displayed.  
    | Verify correct source release levels.  
    | If any of the standby E5-MASP GPLs indicate ALM, it is possible that the fixed disk has not gone through session 2 of the previous upgrade. Stop the procedure and contact My Oracle Support. |
| 8    | Issue the command to repair the standby TDM’s database. |
| 9    | Response to the repair command is displayed.  
    | Wait for the ‘repair complete’ message to display and the MASP returns to in-service. |
| 10   | Place original standby E5-MASP in system.  
    | Slide the MASP H/S switch (SW3) on the standby MASP up to the unlocked position (Wait for all drive LEDs to transition to a steady blue).  
    | Remove the standby E5-MASP card determined in step 2.  
    | Insert the original standby E5-MASP card.  
    | Slide the MASP H/S switch (SW3) on the original standby MASP down to the locked position (Wait for the MASP H/S LED to transition from blinking blue to off and the MASP to come up in standby mode).  
    | Note: UAMs are generated during this step. An audible alarm is generated.  
    | Wait for the original standby E5-MASP to come up in standby mode and system returns to duplex mode. |
**Procedure 4: Verifying All Databases**

This procedure verifies that all databases are coherent and at the same level, which includes current and backup partitions on both fixed disks.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Issue the command to display database information.</td>
</tr>
<tr>
<td>2.</td>
<td>Response to the command is displayed.</td>
</tr>
<tr>
<td>3.</td>
<td>Verify entries in column “C” show “Y”, which indicates coherence.</td>
</tr>
<tr>
<td>4.</td>
<td>Verify entries in column “T” show “N” (backup and RMD may show a dash), which indicates that the database is not in transition.</td>
</tr>
<tr>
<td>5.</td>
<td>Verify all entries in the database LEVEL column are the same. LEVEL is a value, which varies depending on the system.</td>
</tr>
<tr>
<td>6.</td>
<td>If the STDBY databases are not coherent or not at the correct level, repeat Procedure 3, step 8.</td>
</tr>
<tr>
<td>7.</td>
<td>Verify that the MPS databases are coherent.</td>
</tr>
</tbody>
</table>

The output of the command `rept-stat-db: display=all` is as follows:

```
rept-stat-db: display=all
```

```
eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y
database status: >> OK <<
TDM 1114 (STDBY)
  C  LEVEL  TIME LAST BACKUP  C  LEVEL  TIME LAST BACKUP
FD BKUP Y     YYY YY-MM-DD hh:mm:ss TTTT Y 1 -
FD CRNT Y     XXX          Y     XXX
MCAP 1113   -        -        -        - MCAP 1115
RD BKUP  -        -        -        - Y 1 -
USB BKUP  -        -        -        - - -
response to the command is displayed.
look in the columns labeled ‘C,’ ‘T,’ and ‘LEVEL’ output by this command.
Verify entries in column ‘C’ show ‘Y’, which
indicates coherence.
Verify entries in column ‘T’ show ‘N’ (backup and
RMD may show a dash), which indicates that the
database is not in transition.
Verify all entries in the
database LEVEL column
are the same.
LEVEL is a value, which
varies depending on the
system.
```
### Procedure 5: Initializing MASPs to Run on Target-Release GPLs

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Remove the USB flash drives from E5-MASPs.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Inhibit the standby MASP</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Response to the inhibit command is displayed</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Issue the report card status command.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Response to the card status command is displayed</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Download target-release flash to the standby MASP.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Response to flash initialization is shown.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Retrieve the GPLs running on the card location.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The target-release is assumed to have been downloaded to the inactive partition prior to the execution of this procedure (see section 4.2.)

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

1. Remove the USB flash drives from E5-MASPs.
2. Inhibit the standby MASP using `IH CARD: LOC=XXXX` (Where XXXX is the location of the standby MASP slot recorded in Procedure 3, Step 2).
3. Verify UAM 514 is displayed.
5. Verify that standby MASP is OSS-MT-DSBLD.
6. Download target-release flash to the standby MASP using `INIT-FLASH: LOC=XXXX: CODE=TRIAL` (Where XXXX is the location used in the previous command).
7. Verify UAM 0004 is displayed.
8. Retrieve the GPLs running on the card location using `REPT-STAT-GPL: LOC=XXXX` (Where XXXX is the location used in the previous command).
**Procedure 5: Initializing MASP to Run on Target-Release GPLs**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 9    | **Response to the card status command is displayed.**  
The card should be running the trial version of the GPL. If the approved and trial versions are the same no ALM will be present.  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| GPL      | CARD      | RUNNING  | APPROVED | TRIAL |
| OAMHC    | 1113      | .......... | ----------- |       |
| BLMCAP   | YYYY-MM-YY | ALM+ | XX-XX-XX | YYYY-YYYY |
| Command  | Compl et ed. |
| 10   | **Run the target-release GPL on the standby MASP**  
(ALW CARD: LOC=XXXX; CODE= NACTI VEPRTN)  
(target release on the inactive partition)  
(Where XXXX is the location of the standby MASP used in the previous command)  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| Card     | has been | allowed. |
| 11 | **Response to allow-card command is shown.**  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| 12 | **Retrieve status of the MASPs**  
(REPT-STAT-GPL: GPL=OAMHC)  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| 13 | **Verify standby MASP running target release GPL.** The standby MASP will display ALM to indicate that the card is not running the approved version GPL.  
**Note:** Standby MASP will not be displayed here if Eagle is getting upgraded from R46.4 or earlier to R46.5 or later. If so, run step 14 verify the GPL on standby MASP. Otherwise go to step 16.  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| 14 | **Retrieve GPL status of the standby MASP.**  
(REPT-STAT-GPL: LOC=XXXX)  
(Where XXXX is the location of the standby MASP slot recorded in Procedure 3, Step 2)  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| 15 | **Verify standby MASP running target release GPLs.** Here the standby MASP will display GPL as EOAM (instead of OAMHC) if Eagle is getting upgraded from R46.4 or earlier to R46.5 or later.  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| 16 | **Perform an OAM role change by booting the active MASP.**  
(INI T-CARD: LOC=XXXX)  
(Where XXXX is the location of the active MASP recorded in Procedure 3, Step 2)  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| 17 | **Response to card initialization is shown.**  

| eaglestp | YY-MM-DD | hh:mm:ss | TTTT | PPP | XX.x.x.x-YY.y.y |
| 18 | **Issue the command to log back in to the system.**  
(LOG N: UID=XXXXXXXX)  
(Where XXXXXXX is a valid login ID)
Procedure 5: Initializing MASPs to Run on Target-Release GPLs

19. Response to login command is displayed.
   - Ignore any login failure message.
   - Verify the Upgrade Phase in Banner.

   eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y Upg Phase U
   User logged in on terminal UU
   ;
   ? Login failures since last successful LOGN
   Last successful LOGN was on port ? on ??-??-?? @ ???:???:??

20. Echo command input to capture terminal.
   - ACT- ECHO: TRM=P
     (Where P is the terminal port number specified in Procedure 1, Step 3)

21. Response to print capture command is displayed.
   - eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y Upg Phase x
     Scroll Area Output will be echoed to Port P
   ;

22. Issue the card status to verify the location of the active MASP slot.
   - REPT- STAT- CARD: APPL=OAM

23. Response to the card status command is displayed.
   - Circle the status of both E5-MASPs:
     1113: Active or Standby
     1115: Active or Standby
     For this sample output, 1113 is active and 1115 is standby.
   Note: GPL & PST display for the standby MASP can be ignored.

24. Inhibit the standby MASP.
   - INH CARD: LOC=XXXX
     (Where XXXX is the location of the standby MASP identified in the previous command)

25. Response to the inhibit command is displayed.
   - eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y
     Card is inhibited.
   ;
   eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y Upg Phase x
   ** 5045 0514 ** CARD XXXX OAMHC
     Standby MASP is inhibited
   ;
   Note: Wait for the card to boot and return to the IMT bus.

26. Download target release flash to the standby MASP.
   - IN T- FLASH: LOC=XXXX; CODE=TRIAL
     (Where XXXX is the location of the standby MASP used in the previous command)

---

7 Phase number is not displayed at this point for incremental upgrades. See section 0 for a definition of incremental upgrade and section 1.4 for a definition of database versioning. Database versioning between releases is determined in Procedure 7, step 2.
Procedure 5: Initializing MASP to Run on Target-Release GPLs

27  Response to flash initialization is shown.

28  Retrieve the GPLs running on the card location.

29  Response to the card status command is displayed.

30  Run the target release GPL on the standby MASP

31  Response to allow card command is shown.

32  Issue the command to display the status of the MASP’s GPL

33  Response from the retrieve command is displayed.

34  If GPLs are not correct, do the following:

Note: Wait for card to boot and return to the IMT bus.

Response to flash initialization is shown.
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.-YY.y.y
FLASH Memory Download for card xxxx started.
; eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.-YY.y.y
FLASH Memory Download for card xxxx completed.
;

Note: Wait for card to boot and return to the IMT bus.

REPT-STAT-GPL: LOC=XXXX
(Where XXXX is the location of the standby MASP slot used in the previous command)

REPT-STAT-GPL: LOC=XXXX
(Where XXXX is the location of the standby MASP used in the previous command)

ALW CARD: LOC=XXXX: CODE=I NACTI VEPRTN (target release on the inactive partition)
(Where XXXX is the location of the standby MASP used in the previous command)

REPT-STAT-GPL: GPL=OAMHC69

If GPLs are not correct, do the following:
1. Repeat Step 2 - 33.
2. Contact My Oracle Support.
Procedure 5: Initializing MASP to Run on Target-Release GPLs

35. Issue the command to display the version of the Flash GPL running on card 1113.

**REPT-STAT-CARD: LOC=1113: MODE=FULL**

<table>
<thead>
<tr>
<th>CARD</th>
<th>VERSI ON</th>
<th>TYPE</th>
<th>GPL</th>
<th>PST</th>
<th>SST</th>
<th>AST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1113</td>
<td>XXX-XXX-XXX</td>
<td>E5MCAP</td>
<td>OAMHC</td>
<td>IS-NR</td>
<td>Standby</td>
<td>-----</td>
</tr>
</tbody>
</table>

**ALARM STATUS** = No Alarms.

**BLMCAP/GPL version** = YY-YYY-YYY

**IMT BUS A** = Conn

**IMT BUS B** = Conn

**CLOCK A** = Idle

**CLOCK B** = Idle

**MBD BIP STATUS** = Valid

**MOTHER BOARD ID** = E5-MCAP

**DBD STATUS** = Valid

**DBD TYPE** = 1G ENET

**DBD MEMORY SIZE** = 4096M

**HW VERIFICATION CODE** = ----

**TROUBLE TEXT VER.** = ----

**IPLNK STATUS**

<table>
<thead>
<tr>
<th>IPLNK</th>
<th>IPADDR</th>
<th>STATUS</th>
<th>PST</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>192.168.53.89</td>
<td>UP</td>
<td>IS-NR</td>
</tr>
</tbody>
</table>

Command Compl et ed.

36. Response from the retrieve command is displayed.

Record version of BLMCAP running on E5-MASP.

GPL Version: ____________

GPL Version: ____________

Note: For upgrade to release 46.6 & later, UAM 0225, "CARD running outdated Flash GPL" is displayed in Alarm Status.

37. Repeat steps 35 – 36, for location 1115.
### Procedure 6: Verifying the Target Release and Software Access Key

This procedure verifies that the Upgrade Software Access Key has been entered.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT [My Oracle Support](https://www.oracle.com) AND ASK FOR UPGRADE ASSISTANCE.**

<table>
<thead>
<tr>
<th>STEP #</th>
<th>Description</th>
<th>Command Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Validate the Software Access Key with the upgrade target release.</td>
<td><code>ACT- UPGRADE: ACTION=CHKREL: SRC=FIXME</code></td>
</tr>
</tbody>
</table>
| 2      | Response from the software validation. | - Eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y  
  - `act-upgrade: action=chkrel: src=zzzz`  
  - Command entered at terminal #10. |
|        | Verify the Upgrade target release is correct. | - Eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y  
  - Upgrade target: EAGLE XX.x.x.x-YY.y.y  
  - Software Access Key valid for target release  
  - Copy Release data to ramdisk.  
  - Validate Release data on ramdisk.  
  - Eagle Release successfully validated.  
  - Command Complete: Upgrade action completed successfully |
|        | If either the upgrade target release is incorrect or the Software Access Key is invalid **STOP** the upgrade and contact [My Oracle Support](https://www.oracle.com). | |
5.2 OAM Conversion

Procedure 7: Verifying all Databases

This procedure verifies that all of the fixed disk’s database partitions have not been converted and are still coherent and at the same level.

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

NOTE: Refer to Section B.2 to configure the Card Set network conversion method for target release 46.0 and higher.

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

<table>
<thead>
<tr>
<th>STEP #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the command to display database status during upgrades.</td>
</tr>
<tr>
<td>2</td>
<td>Response to the command is displayed. Look in the columns labeled ‘C’, ‘T’, and ‘LEVEL’ output by this command. Verify entries in column ‘C’ show ‘Y’, which indicates coherence or ‘-’. Verify column ‘T’ shows ‘N’ for both CRNT databases, which indicates that those databases are not in transition. Or if target release is on the inactive partition, the database level is “1”. Verify all entries in the database ‘Level’ column marked as ‘XXX’ are the same. Verify that the version numbers displayed are correct.8</td>
</tr>
<tr>
<td>3</td>
<td>Issue the command to retrieve the upgrade configuration</td>
</tr>
<tr>
<td>4</td>
<td>Response to the retrieve command is displayed. If target release is 46.0 or 45.x, verify that SAK is set. The Threshold Type will be GROUP or SET.</td>
</tr>
</tbody>
</table>

8 See section 1.4 to verify the database versions. If the database versions are the same for the TDMs as well as the RMD, the phase indicator is not displayed until after Procedure 8, step 1.
Procedure 8: STP Conversion

This begins the actual STP conversion process. This procedure begins during Upgrade Phase 0 and ends as part of Upgrade Phase 3. See recommendation #5 in section 1.6 before executing this procedure.

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

If the upgrade execution terminates before successfully completing, see recommendation #7 in 1.6

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

Table 18. Act Upgrade Command Actions

<table>
<thead>
<tr>
<th>Fixed workspace</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>OAM based measurements are inhibited.</td>
</tr>
<tr>
<td>B</td>
<td>N/A</td>
</tr>
<tr>
<td>C</td>
<td>The standby disk is formatted based on the target release configuration table.</td>
</tr>
<tr>
<td>D</td>
<td>The target release GPLs are copied onto the standby TDM.</td>
</tr>
<tr>
<td>E</td>
<td>The existing database is converted onto the standby disk, upgrading the existing EAGLE source-release tables to target-release tables.</td>
</tr>
<tr>
<td>F</td>
<td>The standby MASP boots automatically.</td>
</tr>
<tr>
<td>G</td>
<td>The active MASP then boots allowing the standby to resume the active role.⁹</td>
</tr>
<tr>
<td>H</td>
<td>The standby disk is formatted based on the target release configuration table.</td>
</tr>
<tr>
<td>I</td>
<td>The target release GPLs are copied onto the standby TDM.</td>
</tr>
<tr>
<td>J</td>
<td>The existing database is converted onto the standby disk, upgrading the existing EAGLE source-release tables to target-release tables.</td>
</tr>
<tr>
<td>K</td>
<td>The standby MASP boots automatically.</td>
</tr>
<tr>
<td>L</td>
<td>Initialization of Network cards.</td>
</tr>
</tbody>
</table>

If the threshold type is set to SET in Procedure 7, Step 4 issue the following command:

```
ACT- UPGRADE: ACTI ON=CONVERTSTP: SRC=FIXED
```

If the threshold type is set to GROUP in Procedure 7, Step 4, issue the following command:

```
ACT- UPGRADE: ACTI ON=CONVERTSTP: SRC=FIXED: THRES=75
```

⁹ Proceed to step 3 to log back into the system and restart output capture.
**Procedure 8: STP Conversion**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Command is displayed.</td>
</tr>
<tr>
<td></td>
<td>[eaglestp YY-MM-DD hh:mm:ss EST Rel XX.x.x-XX.x.x Upg Phase 0 act-upgrade:action=convertstp:thres=XX Command entered at terminal #10.]</td>
</tr>
<tr>
<td></td>
<td>NOTICE: One of the following messages will be output at the start of the upgrade process to indicate which workspace (fixed or removable) has been selected by the system for OAM conversion:</td>
</tr>
<tr>
<td></td>
<td>[eaglestp YY-MM-DD hh:mm:ss EST Rel XX.x.x-XX.x.x Upg Phase 0 Using inactive standby partitions for OAM conversion (disk=dddd)]</td>
</tr>
<tr>
<td></td>
<td>(Where dddd defines conversion workspace)</td>
</tr>
<tr>
<td></td>
<td>NOTICE: See Appendix D (D.1) for samples of output messages.</td>
</tr>
<tr>
<td></td>
<td>[eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase x Command Complete: Upgrade action completed successfully]</td>
</tr>
<tr>
<td></td>
<td>NOTE: If upgrade terminates abnormally in phase 3 due to cards being in IS-ANR</td>
</tr>
<tr>
<td>3</td>
<td>After item G in step 1, issue the command to log back in to the system.</td>
</tr>
<tr>
<td></td>
<td>[LOGN: UI D=XXXXXX]</td>
</tr>
<tr>
<td></td>
<td>(Where XXXXXX is a valid login ID)</td>
</tr>
<tr>
<td>4</td>
<td>Response to login command is displayed.</td>
</tr>
<tr>
<td></td>
<td>Ignore any login failure message.</td>
</tr>
<tr>
<td></td>
<td>[eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase x User logged in on terminal 10.]</td>
</tr>
<tr>
<td></td>
<td>? Login failures since last successful LOGN Last successful LOGN was on port ? on ??-??-?? @ ??:??:??</td>
</tr>
<tr>
<td>5</td>
<td>Issue the command to reactivate printer capture of upgrade process.</td>
</tr>
<tr>
<td></td>
<td>[ACT-ECHO:TRM=P]</td>
</tr>
<tr>
<td></td>
<td>(Where P is the terminal port number specified in Procedure 1, Step 3)</td>
</tr>
<tr>
<td>6</td>
<td>Response to print capture command is displayed.</td>
</tr>
<tr>
<td></td>
<td>[eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase x Scroll Area Output will be echoed to Port P.]</td>
</tr>
</tbody>
</table>

---

10 Software troubles from the DMS_LOCK.C module may be generated, for incremental upgrade only, while GPLs are being copied. These software troubles are not expected but, if they occur in this circumstance, they are not service affecting.
Procedure 8: STP Conversion

7 Issue the command to display database status during upgrades.

```
ACT-UPGRADE: ACTION=DBSTATUS
```

8 Response from the command is displayed.

```
DATABASE STATUS: >> OK <<
```

Look in the columns labeled ‘C’, ‘LEVEL’ and ‘VERSION STATUS’ output by this command.

- Verify entries in column ‘C’ show ‘Y’ which indicates coherence or ‘-’.

- Verify both ‘FD CRNT’ Levels are equal.

- Verify ‘VERSION STATUS’ shows NORMAL in the active partition group. NOTE: this will not occur until step 2 above is completed.

9 Issue the report card status command to verify network cards.

```
REPT-STAT-CARD
```

10 Response to the card status command is displayed.

- Verify that the cards are IS-NR, OOS-MT | Isolated or OOS-MT-DSBLD.

- Verify that the GPL versions that are displayed in the “VERSION” column are correct; see Section 1.3.

Command Completed.
### Procedure 8: STP Conversion

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Issue the command to display GPL status.</td>
<td><strong>RTRV</strong> <strong>-</strong> <strong>GPL</strong></td>
</tr>
<tr>
<td>12</td>
<td>Response from the retrieve command is displayed.</td>
<td><strong>eaglestp</strong> YY- MM- DD hh:mm:ss TTTT PPP XX.x.x.x.-YY.y.y ** GPL Auditing** ** ON**</td>
</tr>
<tr>
<td></td>
<td>Verify that the GPL versions that are displayed in the “RELEASE” column are correct; see Section 1.3</td>
<td><strong>GPL</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GGGGGG1</td>
<td>1114</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG1</td>
<td>1116</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG2</td>
<td>1114</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG2</td>
<td>1116</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG2</td>
<td>1113</td>
<td>-----------</td>
</tr>
<tr>
<td>GGGGGG3</td>
<td>1114</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG3</td>
<td>1116</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG3</td>
<td>1113</td>
<td>-----------</td>
</tr>
<tr>
<td>OAMHC</td>
<td>1114</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>OAMHC</td>
<td>1116</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>OAMHC</td>
<td>1113</td>
<td>-----------</td>
</tr>
<tr>
<td>GGGGGG4</td>
<td>1114</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG4</td>
<td>1116</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG4</td>
<td>1113</td>
<td>-----------</td>
</tr>
<tr>
<td>GGGGGG5</td>
<td>1114</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG5</td>
<td>1116</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG5</td>
<td>1113</td>
<td>-----------</td>
</tr>
<tr>
<td>GGGGGG6</td>
<td>1114</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG6</td>
<td>1116</td>
<td>XXX- XXX- XXX</td>
</tr>
<tr>
<td>GGGGGG6</td>
<td>1113</td>
<td>-----------</td>
</tr>
</tbody>
</table>
5.3 Completion of Session 1

5.3.1 Migrate to VxWorks6.9

Migrate the OAM and selected modules to VxWorks 6.9 if target release is 46.6 or above.

If the source release is 46.5 or prior and the target release is 46.6 or later, then execute Procedure 9 through Procedure 13. Otherwise, go to Procedure 14.

If the display/report is for a command such as RTRV-GPL, or REPT-STAT-GPL, any command intended to display or operate on a particular GPL, then EAGLE displays the correct GPL name, i.e.: OAMHC or OAMHC69. But when the command intends to display the status of a card, then EAGLE displays the generic name that is OAMHC for OAMHC and/or OAMHC69, MCPHC for MCPHC and/or MCPHC69; IPSHC for IPSHC and/or IPSMHC69.

Procedure 9: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

<table>
<thead>
<tr>
<th>STEP #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the card status to verify the location of the active/standby MASP slots.</td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td>3</td>
<td>Record the MASP in the standby role:</td>
</tr>
<tr>
<td>4</td>
<td>Report the GPLs running on the card location.</td>
</tr>
<tr>
<td>5</td>
<td>Issue the command to inhibit the standby MASP.</td>
</tr>
</tbody>
</table>

**Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

---

**From Procedure 9: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL**

**Issue the card status to verify the location of the active/standby MASP slots.**

**Response to the card status command is displayed.**

**Record the MASP in the standby role:**

- Standby: 1113 or 1115

For this sample output, 1113 is active and 1115 is standby.

**Report the GPLs running on the card location.**

**Response from the status command is displayed.**

**Record the flash image running on the standby MASP:**

- BLMCAP or BLDC32

If the “ALM” indicator is displayed for the card’s flash image, continue.

- Or if the card is running BLMCAP, continue.

- Otherwise, go to step 23.

**Issue the command to inhibit the standby MASP.**

(Where XXX is the location of the standby MASP slot used in the previous command.)
### Procedure 9: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td><strong>Response to the inhibit command is displayed</strong>&lt;br&gt;Verify UAM 514 is displayed.&lt;br&gt;<strong>If the “ALM” indication was displayed in step 4, continue. Otherwise, go to step 11.</strong>&lt;br&gt;Note: Wait for the card to boot and return to the IMT bus.</td>
</tr>
<tr>
<td>7</td>
<td><strong>Download the approved version flash to the standby MASP.</strong>&lt;br&gt;<strong>I NI T- FLASH: LOC=XXXX* CODE=APPR</strong>&lt;br&gt;(Where XXXX is the location of the standby MASP slot used in the previous command.)</td>
</tr>
<tr>
<td>8</td>
<td><strong>Response to flash initialization is shown.</strong>&lt;br&gt;<strong>Verify UAM 0004 is displayed.</strong>&lt;br&gt;<strong>If the card is running BLMCAP, continue. Otherwise, go to step 17.</strong>&lt;br&gt;<strong>Note: Wait for card to boot and return to the IMT bus.</strong></td>
</tr>
<tr>
<td>9</td>
<td><strong>Issue command to activate the flash on standby MASP</strong>&lt;br&gt;<strong>ACT- FLASH: LOC=XXXX</strong>&lt;br&gt;(Where XXXX is the location of the standby MASP slot used in the previous command.)</td>
</tr>
<tr>
<td>10</td>
<td><strong>Response to the activate command is displayed.</strong>&lt;br&gt;<strong>Issue flash command to download the bootloader image.</strong>&lt;br&gt;<strong>I NI T- FLASH: LOC=XXXX* MODE=RPLCEBL: BI TS=32</strong>&lt;br&gt;(Where XXXX is the location of the standby MASP slot used in the previous command.)</td>
</tr>
<tr>
<td>11</td>
<td><strong>Response to flash command is shown.</strong>&lt;br&gt;<strong>Issue command to download approved flash image.</strong>&lt;br&gt;<strong>I NI T- FLASH: LOC=XXXX* CODE=APPR: GPL=BLDC32</strong>&lt;br&gt;(Where XXXX is the location used in the previous command)</td>
</tr>
<tr>
<td>12</td>
<td><strong>Response to flash initialization is shown.</strong>&lt;br&gt;<strong>Verify UAM 0004 is displayed.</strong>&lt;br&gt;<strong>Note: Wait for card to boot and return to the IMT bus.</strong></td>
</tr>
<tr>
<td>13</td>
<td><strong>Retrieve the GPLs running on the card location.</strong>&lt;br&gt;<strong>REPT- STAT- GPL: LOC=XXXX</strong>&lt;br&gt;(Where XXXX is the location used in the previous command)</td>
</tr>
</tbody>
</table>
Procedure 9: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

16. Response to the GPL status command is displayed.
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.YY.y.y Upg Phase 3
   GPL CARD RUNNING NO APPROVED TRIAL
   OAMHC XXXX ----------------- ----------------- ----------------- ----------------- -----------------
   BLDC32 YYYY-YY-YYY+ YYYY-YY-YYY XXX-XXX-XXX
   Command Completed.

17. Issue command to activate the flash on standby MASP.
   ACT-FLASH:loc=XXXX
   (Where XXXX is the location of the standby MASP used in the previous command)

18. Response to the activate command is displayed.
   eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y Upg Phase 3
   FLASH Memory Activation for card XXXX Started.
   eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y Upg Phase 3
   FLASH Activation for card XXXX Completed.

19. Issue command to allow the standby MASP.
   ALW CARD:LOC=xxxx
   (Where XXXX is the location of the standby MASP used in the previous command)

20. Response to allow-card command is shown.
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y Upg Phase 3
   Card has been allowed.

21. Issue command to report the status of the Standby MASP.
   REPT-STAT-CARD:LOC=xxxx
   (Where XXXX is the location of the standby MASP used in the previous command)

22. Response to the card’s status report is displayed.
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y Upg Phase 3
   CARD VERSION TYPE GPL PST SST AST
   xxxxx xxxxxx xxxxxxxx E5MCAP OAMHC IS-NR Standby ---
   ALARM STATUS = No Alarms.
   BLDC32 GPL version = YYYY-YY-YYYY
   IM BUS A = Conn
   IM BUS B = Conn
   MBD BUS STATUS = Valid
   MOTHER BOARD ID = E5-MCAP
   DBD STATUS = Valid
   DBD TYPE = 1G ENET
   DBD MEMORY SIZE = 4096M
   HW VERIFICATION CODE = ----
   CURRENT TEMPERATURE = 22C (72F)
   PEAK TEMPERATURE = 22C (72F) [13-05-19 08:02]
   TROUBLE TEXT VER. = ----
   IPLNK STATUS
   Command Completed.

23. If this is the first pass through this procedure, issue command to boot the active MASP.
   INIT-CARD:LOC=YYYY
   (Where YYYY is the location of the active MASP)
   Otherwise, continue to next procedure.

24. Response to card initialization is shown.
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y Upg Phase 3
   Init Card command issued to card YYYY

25. Issue the command to log back in to the system.
   LOGN UID=xxxxxx
   (Where xxxxx is a valid login ID)

26. Response to login command is displayed.
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y Upg Phase 3
   User logged in on terminal UU
   ? Logon failures since last successful LOGN
   Last successful LOGN was on port ? on ??-??-?? @ ??:??:??

27. Echo command input to capture terminal.
   ACT-ECHO:TRM=P
   (Where P is the terminal port number specified in Procedure 1, Step 3)
Procedure 9: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

| 28 | Response to print capture command is displayed. | ; scroll area output will be echoed to port P. | Repeat Steps 1 – 22 for the formerly active MASP. |
Procedure 10: Migrate the MCPM cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

This procedure flashes the MCPM cards to load new VxWorks 6.9 flash images. For SLIC cards running the MCP application, use the next procedure.

Execute the below procedure for every MCPM card present in the system.

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

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>If the source release was 46.5 or prior, issue the MCPM card status command. Otherwise, continue to next procedure.</td>
</tr>
<tr>
<td>2.</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td>3.</td>
<td>For each MCPM-type card listed above, issue the GPL status command.</td>
</tr>
<tr>
<td>4.</td>
<td>Response to the status command is displayed.</td>
</tr>
<tr>
<td>5.</td>
<td>Issue command to inhibit the card</td>
</tr>
<tr>
<td>6.</td>
<td>Response to the inhibit command is displayed</td>
</tr>
<tr>
<td>7.</td>
<td>Issue command to download approved flash image.</td>
</tr>
<tr>
<td>8.</td>
<td>Response to flash initialization is shown.</td>
</tr>
</tbody>
</table>

Note: Wait for the card to boot and return to the IMT bus.
**Procedure 10: Migrate the MCPM cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL**

<table>
<thead>
<tr>
<th>Step</th>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>ACT-FLASH: LOC=XXXX</td>
<td>Issue command to activate the flash image. (Where XXXX is the location of the MCPM card used in previous command.)</td>
</tr>
<tr>
<td>10</td>
<td>eagle est p YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y FLASH Memory Activation for card XXXX Started.</td>
<td>Response to the activate command is displayed.</td>
</tr>
<tr>
<td></td>
<td>eagle est p YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y FLASH Activation for card XXXX Complet ed.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>IN T-FLASH: LOC=XXXX; MODE=RPLCEBL: BI TS=64</td>
<td>Issue flash command to download the bootloader image. (Where XXXX is the location of the MCPM card used in previous command.)</td>
</tr>
<tr>
<td>12</td>
<td>eagle est p YY-MM DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y BOOTLOADER change for card XXXX SUCCESSFUL.</td>
<td>Response to flash command is shown.</td>
</tr>
<tr>
<td></td>
<td>eagle est p YY-MM DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y Command Complet ed.</td>
<td>If either response is displayed, then proceed to the next step.</td>
</tr>
<tr>
<td></td>
<td>OR</td>
<td>If the bootloader was successfully downloaded previously:</td>
</tr>
<tr>
<td></td>
<td>eagle est p 17-01-20 12:19:04 MST EAGLE XX.x.x.x-YY.y.y BOOTLOADER not changed for card XXXX Already running requested bootloader.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>eagle est p 17-01-20 12:19:04 MST EAGLE XX.x.x.x-YY.y.y Command Complet ed.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>IN T-FLASH: LOC=XXXX; CODE=APPR; GPL=BLDC32</td>
<td>Download target-release flash to the MCPM card. (Where XXXX is the location used in the previous command)</td>
</tr>
<tr>
<td>14</td>
<td>eagle est p YY-MM DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y FLASH Memory Download for card xxxx started.</td>
<td>Response to flash initialization is shown.</td>
</tr>
<tr>
<td></td>
<td>eagle est p YY-MM DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y FLASH Memory Download for card xxxx complet ed.</td>
<td>Verify UAM 0004 is displayed.</td>
</tr>
<tr>
<td></td>
<td>eagle est p YY-MM DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y * 8003.0004 * GPL SYSTEM BLDC32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Card is running non-activated GPL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: Wait for card to boot and return to the IMT bus.</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>ACT-FLASH: LOC=XXXX</td>
<td>Issue command to activate the flash image. (Where XXXX is the location of the MCPM card used in the previous command)</td>
</tr>
<tr>
<td>16</td>
<td>eagle est p YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y FLASH Memory Activation for card XXXX Started.</td>
<td>Response to the activate command is displayed.</td>
</tr>
<tr>
<td></td>
<td>eagle est p YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y FLASH Activation for card XXXX Complet ed.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>ALW CARD: LOC=XXXX</td>
<td>Issue the allow command to reload the MCPM card. (Where XXXX is the location of the card used in the previous command)</td>
</tr>
<tr>
<td>18</td>
<td>eagle est p YY-MM DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y Card has been allowed.</td>
<td>Response to allow-card command is shown.</td>
</tr>
<tr>
<td>19</td>
<td>REPT-STAT- GPL: LOC=XXXX</td>
<td>Retrieve status of the MCPM card if present in the system. (Where XXXX is the location of the card used in the previous command)</td>
</tr>
<tr>
<td>20</td>
<td>eagle est p YY-MM DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y GPL Auditing ON</td>
<td>Response to GPL status command.</td>
</tr>
</tbody>
</table>
### Procedure 10: Migrate the MCPM cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

<table>
<thead>
<tr>
<th>Step</th>
<th>Action/Command</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Verify that MCPM card is BLDC32 GPL.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Command Completed.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Issue command to report the status of the measurement system</td>
<td>REPT-STAT-MEAS</td>
</tr>
<tr>
<td></td>
<td>Command Completed.</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Response to Measurement status command.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Verify that MCPM cards have returned to IS-NR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Command Completed.</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3-22 for the next card listed in Step2.</td>
<td>Note: Wait till this flashed MCPM card to complete reloading before proceeding to next step.</td>
</tr>
</tbody>
</table>
## Procedure 11: MCP application is provisioned on SLIC card, migrate the same to VxWorks6.9.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td>If the source release was 46.5 or prior, issue the MCPM card status command. Otherwise, continue to next procedure.</td>
</tr>
<tr>
<td><strong>2</strong></td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td><strong>3</strong></td>
<td>For each card with type equal to SLIC listed above, issue the GPL status command.</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td>Response to the GPL status command is displayed. If the “ALM” indicator is displayed for the card’s flash image, continue. If card is running BLSLC32, continue. Otherwise, repeat step 3 for next SLIC card in list.</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>Issue command to inhibit the card.</td>
</tr>
<tr>
<td><strong>6</strong></td>
<td>Response to the inhibit command is displayed. If the “ALM” indication was displayed in step 4, continue. Otherwise, go to step 11.</td>
</tr>
<tr>
<td><strong>7</strong></td>
<td>Issue command to download approved flash image.</td>
</tr>
<tr>
<td><strong>8</strong></td>
<td>Response to flash initialization is shown. Verify UAM 0004 is displayed. If card is running BLSL932, go to step 13. Otherwise, continue.</td>
</tr>
</tbody>
</table>

**Note:** Wait for card to boot and return to the IMT bus.

**Additional Notes:**
- SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.
Procedure 11: MCP application is provisioned on SLIC card, migrate the same to VxWorks6.9.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 9    | Issue command to activate the flash image.  
      | `ACT-FLASH; LOC=XXXX`  
      | (Where XXXX is the location of the MCPM card used in previous command.) |
| 10   | Response to the activate command is displayed.  
      | eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y Upg Phase 3  
      | FLASH Memory Activation for card XXXX Started.  
      | eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y Upg Phase 3  
      | FLASH Activation for card XXXX Completed.  
| 11   | Issue flash command to download target-release flash to the MCPM card.  
      | `INIT-FLASH; LOC=XXXX; CODE=APPR; GPL=BLSL932`  
      | (Where XXXX is the location used in the previous command) |
| 12   | Response to flash initialization is shown.  
      | eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-x-YY.y.y  
      | FLASH Memory Download for card xxxx started.  
      | eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-x-YY.y.y  
      | FLASH Memory Download for card xxxx completed.  
      | eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-x-YY.y.y  
      | * 8003.0004 * GPL SYSTEM BLSL932  
      | Card is running non-activated GPL  
      | Note: Wait for card to boot and return to the IMT bus. |
| 13   | Issue command to activate the flash image.  
      | `ACT-FLASH; LOC=XXXX`  
      | (Where XXXX is the location of the MCPM card used in the previous command) |
| 14   | Response to the activate command is displayed.  
      | eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y  
      | FLASH Memory Activation for card XXXX Started.  
      | eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y  
      | FLASH Activation for card XXXX Completed.  
| 15   | Issue the allow command to reload the MCPM card.  
      | `ALW-CARD; LOC=XXXX`  
      | (Where XXXX is the location of the card used in the previous command) |
| 16   | Response to allow-card command is shown.  
      | eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-x-YY.y.y  
      | Card has been allowed.  
      |  
| 17   | Issue command to report GPL status.  
      | `REPT-STAT; GPL; LOC=XXXX` |
| 18   | Response to GPL status command.  
      | eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-x-YY.y.y  
      | GPL Auditing ON  
      | MPLC69 CARD RUNNING APPROVED TRIAL  
      | BLSL932 YYYY-YYYY YYYY-YYYY YYYY-YYYY YYYY-YYYY  
      | Command Completed.  
| 19   | Issue command to report the status of the measurement system  
      | `REPT-STAT-MEAS` |
The procedure involves migrating an MCP application from a SLIC card to VxWorks6.9. The process includes handling the response to a measurement status command and verifying that MCPM cards have returned to the IS-NR state. The table provides examples of the output from the command, showing the status and alarms for the MCPM cards and IP links.

**Procedure 11: MCP application is provisioned on SLIC card, migrate the same to VxWorks6.9.**

- **Response to Measurement status command.**
  - Example: `eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x:yy.y`  
    - `MEAS SS`: PST, SST, AST  
    - `ALARM STATUS`: No Alarms

- **Verify that MCPM cards have returned to IS-NR.**
  - Example:
    - `CARD XXXX VERSI ON XXX-XXX-XXX`  
    - `TYPE`: MCPM  
    - `PST`: IS-NR  
    - `SST`: Active  
    - `AST`: -----  
    - `CARD XXXX ALARM STATUS`: No Alarms

If this is the last card listed in Step 2, continue to the next procedure. Otherwise, repeat Steps 3-18 for the next card listed in Step 2.

**Note:** Wait till this flashed MCPM card to complete reloading before proceeding to the next step.
Procedure 12: Migrate the IPS (ENET-B) cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

This procedure is to migrate the IPSM cards from VxWorks6.4 to VxWorks6.9. For SLIC cards running the IPS application, use the next procedure.

Execute the below procedure for every IPSM card present in the system.

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

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If the source release was 46.5 or prior, issue the IPSM card status command. Otherwise, continue to next procedure.</td>
</tr>
<tr>
<td></td>
<td><strong>REPT-STAT- CARD: APPL=IPS</strong></td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td></td>
<td><strong>eagl est p YY:MM DD hh:mm ss EST PPP XX.x.x.x-YY.y.y</strong>&lt;br&gt;<strong>CARD VERSI ON TYPE GPL PST SST AST</strong>&lt;br&gt;<strong>XXXX XXX-XXX-XXX IPSM IPSHC 1S-NR Active -----</strong>&lt;br&gt;<strong>XXXX XXX-XXX-XXX IPSM IPSHC 1S-NR Active -----</strong>&lt;br&gt;<strong>Command Compl et ed.</strong></td>
</tr>
<tr>
<td>3</td>
<td>For each IPSM-type card listed above, issue the GPL status command.</td>
</tr>
<tr>
<td></td>
<td><strong>REPT-STAT- GPL: LOC=XXXX</strong>&lt;br&gt;(Where XXXX is the location of an IPSM card slot listed in previous step.)</td>
</tr>
<tr>
<td>4</td>
<td>Response to the status command is displayed.</td>
</tr>
<tr>
<td></td>
<td>If the “ALM” indicator is displayed for the card’s flash image, continue. If card is running BLMCAP, continue. Otherwise repeat step 3 for next IPSM card in list.</td>
</tr>
<tr>
<td></td>
<td><strong>eagl est p YY:MM DD hh:mm ss TTTT EAGLE XX.x.x.x-YY.y.y</strong>&lt;br&gt;<strong>GPL CARD RUNN NG APPROVED TRIAL</strong>&lt;br&gt;<strong>IPSHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX</strong>&lt;br&gt;<strong>YYYY-YYY-YYY YYYY-YYY-YYY</strong>&lt;br&gt;<strong>ZZZZZZ ZZZ ZZZ ALM</strong>&lt;br&gt;<strong>Command Compl et ed.</strong></td>
</tr>
<tr>
<td>5</td>
<td>Issue command to inhibit the card.</td>
</tr>
<tr>
<td></td>
<td><strong>INH- CARD: LOC=XXXX</strong>&lt;br&gt;(Where XXXX is the location of the IPSM card use in previous command.)</td>
</tr>
<tr>
<td>6</td>
<td>Response to the inhibit command is displayed.</td>
</tr>
<tr>
<td></td>
<td>If the “ALM” indication was displayed in step 4, continue. Otherwise, go to step 11.</td>
</tr>
<tr>
<td></td>
<td><strong>eagl est p YY:MM DD hh:mm ss EST PPP XX.x.x.x-YY.y.y</strong>&lt;br&gt;<strong>Card has been in hi bit ed.</strong>&lt;br&gt;<strong>eagl est p YY:MM DD hh:mm ss EST PPP XX.x.x.x-YY.y.y</strong>&lt;br&gt;<strong>Command Compl et ed.</strong></td>
</tr>
<tr>
<td>7</td>
<td>Issue command to download approved flash image.</td>
</tr>
<tr>
<td></td>
<td><strong>INIT- FLASH: LOC=XXXX: CODE=APPR</strong>&lt;br&gt;(Where XXXX is the location of the IPSM card use in previous command.)</td>
</tr>
</tbody>
</table>
### Procedure 12: Migrate the IPS (ENET-B) cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command Details</th>
</tr>
</thead>
</table>
| 8    | Response to flash initialization is shown. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y FLASH Memory Download for card xxxx started.`  
|      | Verify UAM 0004 is displayed. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y FLASH Memory Download for card xxxx completed.`  
|      | If card is running BLDC32, go to step 15. Otherwise, continue. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y 8003.0004 * GPL SYSTEM Card is running non-activated GPL`  |
| 9    | Issue command to activate the flash image. | `ACT-FLASH |loc=XXXX`  
|      | (Where XXXX is the location of the IPSM card used in previous command.) |  
| 10   | Response to the activate command is displayed. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y FLASH Memory Activation for card XXXX Started.`  
|      | If either response is displayed, then proceed to the next step. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y FLASH Memory Activation for card XXXX Completed.`  
| 11   | Issue flash command to download the bootloader image. | `INI T-FLASH:LOC=XXXX; MODE=RPLCEBL; BI TS=64`  
|      | (Where XXXX is the location of the IPSM card used in previous command.) |  
| 12   | Response to flash command is shown. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y BOOTLOADER change for card XXXX SUCCESSFUL.`  
|      | If either response is displayed, then proceed to the next step. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y Command Completed.`  
|      | OR If the bootloader was successfully downloaded previously: | `eaglestop 17-01-20 12:19:04 MST EAGLE xx.x.x.x-YY.y.y BOOTLOADER not changed for card XXXX Already running requested bootloader.`  
|      | | `eaglestop 17-01-20 12:19:04 MST EAGLE xx.x.x.x-YY.y.y Command Completed.`  
| 13   | Download target-release flash to the IPSM card. | `INI T-FLASH:LOC=XXXX; CODE=APPR; GPL=BLDC32`  
|      | (Where XXXX is the location of the IPSM card used in previous command.) |  
| 14   | Response to flash initialization is shown. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y FLASH Memory Download for card XXXX started.`  
|      | Verify UAM 0004 is displayed. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y FLASH Memory Download for card XXXX completed.`  
|      | * 8003.0004 * GPL SYSTEM BLDC32 Card is running non-activated GPL |  
| 15   | Issue command to activate the flash image. | `ACT-FLASH |loc=XXXX`  
|      | (Where XXXX is the location of the IPSM card used in the previous command) |  
| 16   | Response to the activate command is displayed. | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y FLASH Memory Activation for card XXXX Started.`  
|      | | `eaglestop YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y FLASH Activation for card XXXX Completed.`  
|      | Note: Wait for card to boot and return to the IMT bus. |  

**Note:**
- Wait for card to boot and return to the IMT bus.
Procedure 12: Migrate the IPS (ENET-B) cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Command/Description</th>
</tr>
</thead>
</table>
| 17   | Issue the allow command to reload the IPSM card | ALW CARD: LOC=XXXX  
(Where XXXX is the location of the card used in the previous command) |
| 18   | Response to allow-card command is shown. |  
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y  
Card has been allowed. |
| 19   | Retrieve status of the IPSM card if present in the system. | REPT-STAT/GPL: LOC=XXXX  
Card has been allowed. |
| 20   | Response to GPL status command.  
Verify that IPSM card is running BLDC32 flash GPL. |  
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE xx.x.x.x-YY.y.y  
GPL Auditing ON  
IPSHC69 XXXX XXX-XXX-XXX APPRVVY-YYY-YYY TRIAL |
| 21   | If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 20 for the next card listed in Step 2. | Note: Wait till this flashed IPSM card to complete reloading before proceeding to next step. |
**Procedure 13: IPS application is provisioned on SLIC card, migrate the same to VxWorks6.9**

<table>
<thead>
<tr>
<th>Step #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If the source release was 46.5 or prior, issue the IPSM card status command. Otherwise, continue to next procedure.</td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td>3</td>
<td>For each IPSM/SLIC card listed above, issue the GPL status commend.</td>
</tr>
<tr>
<td>4</td>
<td>Response to the GPL status command is displayed. If the “ALM” indicator is displayed for the card’s flash image, continue. If card is running BLSLC32, continue. Otherwise repeat step 3 for next SLIC card in list.</td>
</tr>
<tr>
<td>5</td>
<td>Issue command to inhibit the card.</td>
</tr>
<tr>
<td>6</td>
<td>Response to the inhibit command is displayed. If the “ALM” indication was displayed in step 4, continue. Otherwise, go to step 11.</td>
</tr>
<tr>
<td>7</td>
<td>Issue command to download approved flash image.</td>
</tr>
</tbody>
</table>

**Note:** Wait for the card to boot and return to the IMT bus.
Response to flash initialization is shown.
Verify UAM 0004 is displayed.
If card is running BLSL932, go to step 13. Otherwise, continue.

Note: Wait for card to boot and return to the IMT bus.

Issue command to activate the flash image.

Response to the activate command is displayed.

Issue flash command to download target-release flash to the IPSM/SLIC card.

Response to flash initialization is shown.
Verify UAM 0004 is displayed.

Note: Wait for card to boot and return to the IMT bus.

Issue command to activate the flash image.

Response to the activate command is displayed.

Issue the allow command to reload the IPSM card.

Response to allow-card command is shown.

Issue command to report GPL status.

Response to GPL status command.
Verify that IPSM card is running BLSL932 GPL.

8
9
10
11
12
13
14
15
16
17
18
Procedure 13: IPS application is provisioned on SLIC card, migrate the same to VxWorks6.9

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>If this is last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3-18 for the next card listed in Step 2.</td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> Wait till this flashed IPSM/SLIC card to complete reloading before proceeding to next step.</td>
</tr>
</tbody>
</table>
Procedure 14: Completing Upgrade/Return to Full-Function Mode

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>If system remains in upgrade mode, issue the command to initialize both MASPs. Otherwise, go to step 7.</td>
</tr>
<tr>
<td>2.</td>
<td>Response to the init command is displayed.</td>
</tr>
<tr>
<td>3.</td>
<td>Issue the command to log back in to the system.</td>
</tr>
<tr>
<td>4.</td>
<td>Response to login command is displayed.</td>
</tr>
<tr>
<td>5.</td>
<td>Issue the command to reactivate printer capture.</td>
</tr>
<tr>
<td>6.</td>
<td>Response to printer capture command is displayed.</td>
</tr>
<tr>
<td>7.</td>
<td>Issue the command to display card status.</td>
</tr>
<tr>
<td>8.</td>
<td>Response to GPL status command is displayed.</td>
</tr>
<tr>
<td>9.</td>
<td>Establish system status</td>
</tr>
</tbody>
</table>

This procedure completes the upgrade and returns the system to full-function mode. Verification of the GPL distribution is also performed. Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

**1.** If system remains in upgrade mode, issue the command to initialize both MASPs. Otherwise, go to step 7.

**2.** Response to the init command is displayed.

```
init-card:appl=oam
```

Verify the banner display full-function mode after the MASPs boot.

```
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
P0002.0009 CARD 1113 OAMHC MASP became active
```

**3.** Issue the command to log back in to the system.

```
login:uid=xxxxx
(Where xxxxxx is a valid login ID)
```

**4.** Response to login command is displayed.

```
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
User logged in on terminal 10.
```

**5.** Issue the command to reactivate printer capture.

```
act-echo:trm=p
(Where p is the terminal port number specified in Procedure 1, Step 4)
```

**6.** Response to printer capture command is displayed.

```
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
act-echo:trm=X
Command entered at terminal #10.
```

**7.** Issue the command to display card status.

```
rept-stat-gpl:diplay=all
```

**8.** Response to GPL status command is displayed.

```
eaglestp YY-MM-DD hh:mm:ss 1117 EAGLE XX.x.x-YY.yy
GPL Auditing ON
OAMHC 1113 xxx-xxx-xxx ALM xxx-xxx-xxx xxx-xxx-xxx
OAMHC 1115 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
BLDC32 1206 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
ATMHC 1209 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
HI PR 1210 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
HI PR 1109 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
HI PR 1110 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
SS7HC 1201 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
SS7HC 1202 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
GLSVC 1203 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
GLSVC 1204 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
BLIXP 1205 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx
```

**9.** Establish system status

See recommendation # 7 in Section 1.6
**Procedure 15: Backing up Converted Database**

<table>
<thead>
<tr>
<th>Step #</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1      | If the target release was on the RMD, insert the target-release RMD. Then go to step 10.  
If a source-release RMD is available and the target release was on the inactive partition, insert the RMD, and continue  
Otherwise go to step 2. |
| 2      | Issue the command to retrieve measurement status. |
| 3      | Response to retrieve command is displayed.  
Record if collection is on or off:  
Record if system configuration requires measurements to be on or off: |
| 4      | Issue the command to turn off measurement collection. |
| 5      | Response to the change command is displayed. |
| 6      | Issue the command to format the RMD. |
| 7      | Response to format command is displayed.  
If the format fails, first repeat the previous step, and then contact My Oracle Support. |
| 8      | Issue the command to copy the GPLs to the RMD. |

Once inserted, allow time for the RMD to be detected by the system.

RMD is inserted in the latched USB port on the active E5-MASP.

1 DO NOT use the source release RMD created in Procedure 2.
**Procedure 15: Backing up Converted Database**

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td><strong>Response to copy command is displayed.</strong></td>
</tr>
</tbody>
</table>
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y COPY: GPL
|  | Command entered at terminal #10.
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y COPY: GPL: MASP A - COPY STARTS ON ACTIVE MASP
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y COPY: GPL: MASP A - COPY COMPLETED ON ACTIVE MASP
| 10 | **Issue the command to report database status.** |
|  | REPT-STAT-DB
| 11 | **Response to database status command is displayed.** |
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y DATABASE STATUS: >> OK <<
|  | TDM 1114 (STDBY) TDM 1116 (ACTV)
|  | C LEVEL TI ME LAST BACKUP C LEVEL TI ME LAST BACKUP
|  | FD BKUP Y XXXY-MM DD hh:mm:ss TTTT Y XXXY-MM DD hh:mm:ss TTTT
|  | FD CRNT Y XXXY-MM DD hh:mm:ss TTTT Y XXXY-MM DD hh:mm:ss TTTT
|  | MCAP 1113 N 1115
|  | RD BKUP N 1
|  | USB BKP - - - -
| 12 | **Issue the database command to backup the fixed disks.** |
|  | CHG-DB: ACTI ON=BACKUP
| 13 | **Response and progress of back up command are displayed.** |
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y 5028.1114 CARD 1115 Database BACKUP started
|  | Report Date:YY-MM DD Time:hh:mm:ss
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y BACKUP (FIXED): MASP A - Backup starts on active MASP.
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete.
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y BACKUP (FIXED): MASP A - Backup on standby MASP.
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y 5031.1116 CARD 1115 Database action ended - OK
|  | Report Date:YY-MM DD Time:hh:mm:ss
|  | eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete
### Procedure 15: Backing up Converted Database

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Issue the command to report database status.</td>
<td><code>rept - stat - db</code></td>
</tr>
<tr>
<td>15</td>
<td>Response to database status command is displayed.</td>
<td><code>eaglestp YY-MM-DD hh:mm:ss TTTT PPXX x.x.x.x-YY.yy.y</code></td>
</tr>
<tr>
<td></td>
<td>Check: entries in 'C' should be coherent, which is indicated by a 'Y'.</td>
<td><code>DATABASE STATUS: =&gt; OK &lt;&lt;</code></td>
</tr>
<tr>
<td></td>
<td>Verify both 'FD CRNT' and 'FD BKUP' Levels are equal.</td>
<td><code>TDM 1114 (STDBY)</code></td>
</tr>
<tr>
<td>16</td>
<td>Issue the database command to back up to the target-release RMD.</td>
<td><code>chg - db: action=backup: dest=remove</code></td>
</tr>
<tr>
<td>17</td>
<td>Response to backup command is displayed.</td>
<td><code>eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.yy.y</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>5035.1114 CARD 1115 Database BACKUP started</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>Report Date: YY-MM-DD Ti me: hh:mm:ss</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.yy.y</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>BACKUP (REMOVABLE): MASP B - Backup starts on active MASP.</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>;</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.yy.y</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>BACKUP (REMOVABLE): MASP B - Backup to removable cartridge complete.</code></td>
</tr>
<tr>
<td>18</td>
<td>Issue the command to report database status.</td>
<td><code>rept - stat - db</code></td>
</tr>
<tr>
<td>19</td>
<td>Response to database status command is displayed.</td>
<td><code>eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.yy.y</code></td>
</tr>
<tr>
<td></td>
<td>Check: entries in 'C' should be coherent, which is indicated by a 'Y'.</td>
<td><code>DATABASE STATUS: =&gt; OK &lt;&lt;</code></td>
</tr>
<tr>
<td></td>
<td>Verify both 'FD CRNT' and 'FD BKUP' Levels are equal.</td>
<td><code>TDM 1116 (ACTV)</code></td>
</tr>
<tr>
<td>20</td>
<td>Issue the command to display GPL status.</td>
<td><code>rtrv - gpl</code></td>
</tr>
<tr>
<td>21</td>
<td>Response from the retrieve command is displayed.</td>
<td><code>eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.yy.y</code></td>
</tr>
<tr>
<td></td>
<td>Verify that the GPL versions that are displayed in the “RELEASE” and “REMOVE TRIAL” column are correct; see Section 1.3</td>
<td><code>GPL Auditing ON</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG1 1114 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG1 1116 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG2 1114 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG2 1116 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG3 1114 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG3 1116 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>OAMHC 1114 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>OAMHC 1116 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG4 1114 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG4 1116 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG5 1114 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG5 1116 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG6 1114 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG6 1116 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG7 1114 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>GGGGGG7 1116 X X XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX XXX</code></td>
</tr>
</tbody>
</table>
### Procedure 15: Backing up Converted Database

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Remove the target-release RMD from the drive slot.</td>
<td>Store the RMD in a safe location.</td>
</tr>
<tr>
<td>23</td>
<td>If the system is configured for remote backups, issue the database command to backup to remote FTP server. Otherwise, go to step 25.</td>
<td><code>chg-db: action=backup: dest=server</code></td>
</tr>
</tbody>
</table>
| 24   | Response to backup command is displayed. | Report Date:YY-MM-DD  Time:hh:mm:ss  
5035.1114 CARD 1115  Database BACKUP started  
CHG-MEAS: MASP A - COMPLTD  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  |
| 25   | If steps 4 & 5 were executed, issue the command to turn the measurements collection on. | `chg-meas: collect=on` |
| 26   | Response to change measurement command is displayed. | Command entered at terminal #10.  
CHG-MEAS: MASP A - COMPLTD  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  
CHG-MEAS: MASP B - Backup starts on active MASP.  
CHG-MEAS: MASP B - Backup to server complete.  |

→ This concludes SESSION ONE ←
5.4 Upgrade Session 2

Procedure 16. Verifying Upgrade Session 2 Requirements

<table>
<thead>
<tr>
<th>STEP #</th>
<th>Task Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complete pre-upgrade session 2 tasks</td>
<td>All tasks in Table 19 must be completed before continuing.</td>
</tr>
</tbody>
</table>

This procedure verifies that all upgrade session 2 requirements have been met. This procedure assumes an acceptable amount of soak time has occurred since the end of session #1. The expected norm for soak time is 48 hours.

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

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

Table 19. Upgrade Session 2 Requirements

<table>
<thead>
<tr>
<th>✓ Tasks to be completed prior to upgrade session 2 execution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that an EAGLE system health check 3 has been performed.</td>
</tr>
</tbody>
</table>
Procedure 17: Upgrading Removable medias

This procedure describes how to update source-release removable media to the target release. See recommendation #2 in section 1.6.

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

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

1. □ Echo command input to capture terminal.

   See recommendation #1 & #6 in section 1.6

   act-echo:trm=P

   (Where the value for P is one of the printer/KSR terminal port numbers recorded in Procedure 1, Step 3)

2. □ Response to activate command is displayed.

   eaglestp YY-MM DD hh:mm:ss TTTT PPP xx.x.x.x-YY.y.y

   act-echo:trm=P

   Command entered at terminal #XX.

3. □ If capture terminal's output groups are not all set to YES, issue the change terminal command.

   chg-trm trm=P:all=yes

   (P is the terminal port that is specified in step 1)

4. □ Response to change terminal command is displayed.

   eaglestp YY-MM DD hh:mm:ss TTTT PPP xx.x.x.x-YY.y.y

   chg-trm trm=P:all=yes

   Command entered at terminal #XX.

5. □ If the measurements platform is enabled¹², go to step 9.

     Otherwise, issue the command to retrieve measurement status.

   rtrv-meas-sched

6. □ Response to retrieve command is displayed.

   eaglestp YY-MM DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y

   COLLECT   = off

   SYSTOT-STP = (off)

   SYSTOT-TT  = (off)

   SYSTOT-STPLAN = (off)

   COMP-LNKSET = (off)

   COMP-LINK  = (off)

   MTC-D-STP   = (on)

   MTC-D-LINK  = (on)

   MTC-D-STPLAN = (on)

   MTC-D-LNKSET = (on)

   If COLLECT=ON, continue to next step. Otherwise, go to Step 9.

7. □ Issue the command to turn off measurement collection.

   chg-meas:collect=off

8. □ Response to the change command is displayed.

   eaglestp YY-MM DD hh:mm:ss 2222 PPP xx.x.x.x-YY.y.y

   chg-meas:collect=off

   Command entered at terminal #XX.

   eaglestp YY-MM DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y

   CHG-MEAS: MASP A - COMPLTD

¹² If enabled, the measurements platform feature is displayed in Procedure 1, Step 11.
Procedure 17: Upgrading Removable medias


   \texttt{rept-meas:type=systot:enttype=stp}

10. Response to the command is displayed.

    E2278 Cmd Rej: 30-minute measurement collection in progress
    
    \texttt{eaglestp YY-MM-DD hh:mm:ss PPP XX.x.x.x-YY.y.y}
    \texttt{rept-meas:type=systot:enttype=stp}
    \texttt{Command entered at terminal #XX.}

    If command fails, reattempt in five minutes until it completes, See Table 20.

11. If LNP feature on, issue measurement report command. (Note this cmd is not supported in 46.3)

    \texttt{rept-meas:type=mtcd:enttype=lnp}

12. Response to the command is displayed.

    E2277 Cmd Rej: Daily measurement collection in progress
    
    \texttt{eaglestp YY-MM-DD hh:mm:ss PPP XX.x.x.x-YY.y.y}
    \texttt{rept-meas:type=mtcd:enttype=lnp}
    \texttt{Command entered at terminal #XX.}

    If command fails, reattempt in five minutes until it completes, See Table 20.

13. Issue measurement report command.

    \texttt{rept-meas:type=mtcdth:enttype=stp}

14. Response to the command is displayed.

    E2276 Cmd Rej: Day-to-hour measurement collection in progress
    
    \texttt{eaglestp YY-MM-DD hh:mm:ss PPP XX.x.x.x-YY.y.y}
    \texttt{rept-meas:type=mtcdth:enttype=stp}
    \texttt{Command entered at terminal #XX.}

    If command fails, reattempt in five minutes until it completes, See Table 20.

    If no source cartridges need upgrading, go to next procedure.

15. Insert the source-release RMD to be upgraded into the drive slot on the active MASP.

    Once inserted, allow time for the RMD to be detected by the system.

    RMD is inserted in the latched USB port on the active E5-MASP.

16. Issue the command to format the RMD.

    \texttt{format-disk:type=syst:force=yes}

17. Response to format command is displayed.

    E2290 Hourly measurement collection in progress
    
    \texttt{eaglestp YY-MM-DD hh:mm:ss PPP XX.x.x.x-YY.y.y}
    \texttt{Format-disk of system removable cartridge started.}
    \texttt{Extended processing required, please wait.}
    \texttt{eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y}
    \texttt{Format-disk of system removable cartridge completed.}

Table 20. MTT errors generated when measurement collection is in progress.

<table>
<thead>
<tr>
<th>Response ID Code</th>
<th>Command Reject Text for MTT error</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2276</td>
<td>Day-to-hour measurement collection in progress</td>
</tr>
<tr>
<td>E2277</td>
<td>Daily measurement collection in progress</td>
</tr>
<tr>
<td>E2278</td>
<td>30-minute measurement collection in progress</td>
</tr>
<tr>
<td>E2279</td>
<td>5-minute measurement collection in progress</td>
</tr>
<tr>
<td>E2290</td>
<td>Hourly measurement collection in progress</td>
</tr>
<tr>
<td>E3688</td>
<td>15-minute measurement collection in progress</td>
</tr>
</tbody>
</table>
### Procedure 17: Upgrading Removable medias

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Issue the command to copy the GPLs to the target-release RMD.</td>
<td><code>copy-gpl</code></td>
</tr>
<tr>
<td>19</td>
<td>Response to copy command is displayed.</td>
<td>eaglestp YY-MM DD hh:mm:ss EST X.X.X.X-YY.y.y&lt;br&gt;<code>copy-gpl</code>&lt;br&gt;Command entered at terminal #10.</td>
</tr>
<tr>
<td>20</td>
<td>Issue the command to backup the target-release database to the RMD.</td>
<td><code>chg-db:action=backup:dest=remove</code></td>
</tr>
<tr>
<td>21</td>
<td>Response to backup command is displayed.</td>
<td>eaglestp YY-MM DD hh:mm:ss EST X.X.X.X-YY.y.y&lt;br&gt;<code>5035.1114 CARD 1115 Database BACKUP started</code>&lt;br&gt;<code>Report Date:YY-MM-DD Time:hh:mm:ss</code>&lt;br&gt;<code>eaglestp YY-MM DD hh:mm:ss EST X.X.X.X-YY.y.y</code>&lt;br&gt;<code>BACKUP (REMOVABLE): MASP A - Backup starts on active MASP.</code>&lt;br&gt;<code>eaglestp YY-MM DD hh:mm:ss EST X.X.X.X-YY.y.y</code>&lt;br&gt;<code>BACKUP (REMOVABLE): MASP B - Backup to removable cartridge complete.</code></td>
</tr>
<tr>
<td>22</td>
<td>Remove the target-release RMD from the drive slot and store it in a safe place.</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>If upgrading more RMDs, repeat step 15-22.</td>
<td></td>
</tr>
</tbody>
</table>
### Procedure 18: Backing Up Fixed Disk

This procedure backs up the converted target-release database to the fixed disk. This is done to ensure a recent database backup has been performed. Verification of the converted database is also done.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

<table>
<thead>
<tr>
<th>STEP #</th>
<th>Description</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the command to backup the database to the fixed disks.</td>
<td>chg-db: action=backup</td>
</tr>
</tbody>
</table>
| 2      | Response and progress of the backup command are displayed. | eaglestop YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y 5028.1114 CARD 1115 Database BACKUP started Report Date:YY-MM-DD Time:hh:mm:ss ; eaglestop YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y BACKUP (FI XED): MASP A - Backup starts on active MASP. ; eaglestop YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y BACKUP (FI XED): MASP A - Backup on active MASP to fixed disk complete. ; eaglestop YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y BACKUP (FI XED): MASP A - Backup starts on standby MASP. ; eaglestop YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y 5031.1116 CARD 1115 Database action ended - OK Report Date:YY-MM-DD Time:hh:mm:ss ; eaglestop YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y BACKUP (FI XED): MASP A - Backup on standby MASP to fixed disk complete. ;

---

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**Procedure 19: Upgrading Spare MASPs**

<table>
<thead>
<tr>
<th>Step #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the command to display card status. <strong>REPT-STAT- CARD:APPL=OAM</strong></td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed. <strong>CARDD:VERSION=1113,TYPE=E5MCAP,GPL=OAMHC,PST=IS-NR,</strong> <strong>SST=Standby,</strong> <strong>AST=-----</strong></td>
</tr>
<tr>
<td>3</td>
<td>Issue the command to inhibit standby MASP. <strong>INH-CARD:LOC=XXXX</strong> (Where <strong>XXXX</strong> is the location for the Standby MASP in the previous steps.)</td>
</tr>
<tr>
<td>4</td>
<td>Response to the command is displayed. <strong>eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x YY.y.y</strong></td>
</tr>
<tr>
<td>5</td>
<td>Place spare E5-MASP in system. Slide the MASP H/S switch (SW3) on the standby MASP up to the unlocked position (Wait for all drive LEDs to transition to a steady blue). Remove the standby E5-MASP card determined in step 2. Insert the spare E5-MASP card. Slide the MASP H/S switch (SW3) on the new standby MASP down to the locked position (Wait for the MASP H/S LED to transition from blinking blue to off and the MASP to come up in standby mode). Note: UAMs are generated during this step. An audible alarm is generated. Wait for the new standby MASP to come up in standby mode and system returns to duplex mode.</td>
</tr>
<tr>
<td>6</td>
<td>Issue command to report the GPLs running on the card location. <strong>REPT-STAT- GPL: LOC=XXXX</strong> (Where <strong>XXXX</strong> is the location for the Standby MASP recorded Step 2.)</td>
</tr>
<tr>
<td>7</td>
<td>Response to the status command is displayed. If the “ALM” indicator is displayed for the card’s flash image, continue. If the target release is 46.6 or higher and the card is running BLMCAP, continue. Otherwise, go to step 20. <strong>eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x YY.y.y ACCPPP:LOC=XXXX:CODE=APPR</strong></td>
</tr>
<tr>
<td>8</td>
<td>Download the approved version flash to the standby MASP. <strong>INI-FLASH: LOC=XXXX: CODE=APPR</strong> (Where <strong>XXXX</strong> is the location of the standby MASP slot used in the previous command.)</td>
</tr>
</tbody>
</table>
Procedure 19: Upgrading Spare MASPs

9. **Response to flash initialization is shown.**
   - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Flash Memory Download for card xxxx started.
   - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Flash Memory Download for card xxxx completed.
   - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` 8003.0004 * GPL SYSTEM BLDC32 Card is running non-activated GPL.

   **Note:** Wait for card to boot and return to the IMT bus.

10. **Issue command to activate the flash on standby MASP**
    - `ACT-FLASH: loc=XXXX` (Where XXXX is the location of the standby MASP used in the previous command)

11. **Response to the activate command is displayed.**
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Flash Memory Activation for card XXXX Started.
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Flash Memory Activation for card XXXX Completed.

12. **Issue flash command to download the bootloader image.**
    - `INIT-FLASH: LOC=XXXX MODE=RPLCEBL; BI TS=32` (Where XXXX is the location of the standby MASP slot used in the previous command)

13. **Response to flash command is shown.**
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Upg Phase 3 Bootloader change for card XXXX SUCCESSFUL.
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Upg Phase 3 Command Complet ed.

14. **Issue command to download approved BLDC32 flash image.**
    - `INIT-FLASH: LOC=XXXX CODE=APPR; GPL=BLDC32` (Where XXXX is the location used in the previous command)

15. **Response to flash initialization is shown.**
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Flash Memory Download for card xxxx started.
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Flash Memory Download for card xxxx completed.
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` 8003.0004 * GPL SYSTEM BLDC32 Card is running non-activated GPL.

   **Note:** Wait for card to boot and return to the IMT bus.

16. **Retrieve the GPLs running on the card location.**
    - `REPT-STAT- GPL: LOC=XXXX` (Where XXXX is the location used in the previous command)

17. **Response to the GPL status command is displayed.**
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` GPL CARD RUNNNG APPROVED TRI AL
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` BLD32 YYYY-YYYY + YYYY-YYYY XXX-XXXX-XXX
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Command Complet ed.

18. **Activate the flash on standby MASP**
    - `ACT-FLASH: loc=XXXX` (Where XXXX is the location of the standby MASP used in the previous command)

19. **Response to the activate command is displayed.**
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Upg Phase 3 Flash Memory Activation for card XXXX Started.
    - `eagletstp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y` Upg Phase 3 Flash Memory Activation for card XXXX Completed.
## Procedure 19: Upgrading Spare MASPs

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Insert target-release USB into the drive slot on the standby E5-MASP.</td>
<td>Once inserted, allow time for the RMD to be detected by the system.</td>
</tr>
<tr>
<td>21</td>
<td>Issue the command to allow card.</td>
<td><code>ALW CARD: LOC=XXXX</code> Where <code>XXXX</code> is the location for the Standby MASP.</td>
</tr>
<tr>
<td>22</td>
<td>Response to the command is displayed.</td>
<td><code>eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code> Card has been allowed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code> Command Compl ed.</td>
</tr>
<tr>
<td>23</td>
<td>Issue the command to display MASP status.</td>
<td><code>REPT- STAT- CARD: APPL=OAM</code></td>
</tr>
<tr>
<td>24</td>
<td>Response to the card status command is displayed.</td>
<td><code>eaglestp YY-MM DD hh:mm:ss XX.x.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>Verify the MASP cards are running the same version of the OAM application GPL.</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Issue the command to display security log status.</td>
<td><code>REPT- STAT- SECULOG</code></td>
</tr>
<tr>
<td>26</td>
<td>Response to the command is displayed.</td>
<td><code>eaglestp YY-MM DD hh:mm:ss XX.x.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>If the ENTRIES column displays any value other than 0 for the Standby ROLE, proceed to the next step. Otherwise, go to step 34.</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Issue the command to copy the security log from the standby disk to FTA area.</td>
<td><code>COPY- SECULOG: SLOG=STB: DFI LE=UPGP15. SPR</code></td>
</tr>
<tr>
<td>28</td>
<td>Response to copy seculog command is displayed.</td>
<td><code>eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code> Security log on TDM 111X copied to file upgp15.spr on TDM 111Y</td>
</tr>
<tr>
<td></td>
<td>If this command fails, proceed to next step. Otherwise, go to step 34.</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Issue the command to display the FTA directory.</td>
<td><code>DI SP- FTA: DI R</code></td>
</tr>
<tr>
<td>30</td>
<td>Response to display directory command is displayed.</td>
<td><code>eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code> File Transfer Area Directory of fixed disk 111Y</td>
</tr>
<tr>
<td></td>
<td>If there are any files that need to be saved, they need to be removed via a file transfer.</td>
<td></td>
</tr>
</tbody>
</table>
| 31   | Issue the command to delete ALL files in the transfer area. | `DLT- FTA: ALL=YES`
### Procedure 19: Upgrading Spare MASP

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>Response to the delete command is displayed.</td>
</tr>
</tbody>
</table>
|      | `eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
|      | `dlt-fta: all=yes`  
|      | Command entered at terminal #nn. |
| 33   | Repeat Steps 27-28. |
| 34   | Issue the command to copy the active MASP image to the standby disk. |
|      | `COPY- DISK: DLOC=XXXX: FORCE=YES: FORMAT=YES`  
|      | (Where XXXX is the location of the STANDBY E5-TDM recorded in Step 2) |
| 35   | Response to the copy-disk command is displayed. |
|      | `eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
|      | `Copy-disk (fixed): from active (YYYY) to standby (XXXX) started.`  
|      | `Extended processing required, please wait.`  
|      | `eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
|      | `Copy-disk (fixed): from active (YYYY) to standby (XXXX) complete.`  
|      | `Measurements may be allowed now if desired.`  
|      | `eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
|      | `0485.0014 CARD 1115 OAMHC Card is present` |
| 36   | If the disk copy fails repeat steps 34-35.  
|      | 1. Repeat Steps 34-35.  
|      | 2. If second attempt fails, contact [My Oracle Support](https://support.oracle.com). |
| 37   | If the measurements platform is enabled then go next procedure. Otherwise, if Procedure 17 Steps 7 & 8 were executed, issue the command to turn the measurements collection on. |
|      | `CHG-MEAS: COLLECT=ON` |
| 38   | Response to change measurement command is displayed. |
|      | `eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
|      | `chg-meas: collect=on`  
|      | Command entered at terminal #10.  
|      | `eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
|      | `CHG-MEAS: MASP A - COMPLTD` |
**Procedure 20: Upgrading Spare HIPR2 cards**

This procedure describes how to upgrade your spare HIPR2 cards.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the command to display imt bus status. <strong>rept-stat-mux</strong></td>
</tr>
<tr>
<td>2</td>
<td>Response to the MUX status command is displayed.</td>
</tr>
<tr>
<td>3</td>
<td>Issue the command to display imt bus status. <strong>rept-stat-imt</strong></td>
</tr>
<tr>
<td>4</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td>5</td>
<td>Issue the command to initialize the IMT bus B at low speed only if the HIPR2 card is getting upgraded from R46.3 or earlier to R46.4 or higher. Otherwise go to step 11. <strong>init-mux: bus=b: hs=no</strong></td>
</tr>
<tr>
<td>6</td>
<td>Response to the above command is displayed.</td>
</tr>
<tr>
<td>7</td>
<td>Issue the command to display imt bus status. <strong>rept-stat-mux</strong></td>
</tr>
<tr>
<td>8</td>
<td>Response to the MUX status command is displayed.</td>
</tr>
</tbody>
</table>
**Procedure 20: Upgrading Spare HIPR2 cards**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 9    | Issue the command to display imt bus status.  
**rept-stat-imt** |
| 10   | Response to the card status command is displayed.  
Response to the card status command is displayed.  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
**rept-stat-imt**  
Command entered at terminal #10.  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
**rept-stat-imt**  
**IMT** **PST** **SST** **AST**  
**ALARM STATUS** = No Alarms.  
**IMT** **PST** **SST** **AST**  
**ALARM STATUS** = No Alarms.  
**Command Compl et ed.** |
| 11   | Issue the command to inhibit IMT bus-B.  
**inh-int:bus=b** |
| 12   | Response to the command is displayed.  
Response to the command is displayed.  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
**inh bit IMT Bus B command issued**  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
**IMT BUS B**  
**IMT inhibited** |
| 13   | Swap spare HIPR2 cards with those on the IMT B-bus. (i.e. location 1110, 1210) |
| 14   | Issue the command to allow IMT bus-B.  
**alw-int:bus=b** |
| 15   | Response to the command is displayed.  
Response to the command is displayed.  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
**Allow IMT Bus B command issued**  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
**IMT BUS B**  
**IMT allowed** |
| 16   | Issue the command to display imt bus status.  
**rept-stat-mux** |
| 17   | Response to the MUX status command is displayed.  
Response to the MUX status command is displayed.  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
**CARD** **TYPE** **PST** **SST** **AST** **BI TRATE**  
**1109** **HIPR2** **I-S-NR** **Active** ----- **HI GH**  
**1110** **HIPR2** **I-S-NR** **Active** ----- **LO W**  
**1209** **HIPR2** **I-S-NR** **Active** ----- **HI GH**  
**1210** **HIPR2** **I-S-NR** **Active** ----- **LO W**  
**1309** **HIPR2** **I-S-NR** **Active** ----- **HI GH**  
**1310** **HIPR2** **I-S-NR** **Active** ----- **LO W**  
**Command Compl et ed.** |
| 18   | Issue the command to display imt bus status.  
**rept-stat-imt** |
**Procedure 20: Upgrading Spare HIPR2 cards**

19. Response to the card status command is displayed.

20. Issue the command to identify the MUX cards in the system.

21. Enter the command to initialize the FLASH on a MUX card on the B-bus that is not running the APPROVED version of the GPL.

22. Enter the command to initialize the current bus.

23. Response to the flash initialization is shown.

24. Enter the command to initialize the current bus.

25. Response to the initialization command is displayed.

26. Issue the command to display IMT bus status.
Procedure 20: Upgrading Spare HIPR2 cards

27 Response to the MUX status command is displayed.

28 Issue the command to display imt bus status.

29 Response to the card status command is displayed.

30 Issue the command to activate the flash on a MUX card flashed in step 22.

31 Response to the activate command is displayed.

32 Issue the command to display the HIPR2 card GPL status.

33 Verify that all HIPR2 cards are running the approved GPL.

34 Repeat steps 1-33 until all spare HIPR2 cards have been flashed.
### Procedure 21: Verifying All Databases

<table>
<thead>
<tr>
<th>STEP</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the command to display database information.</td>
</tr>
<tr>
<td>2</td>
<td>Response to the command is displayed.</td>
</tr>
<tr>
<td></td>
<td>Look in the columns labeled ‘C,’ ‘T,’ and ‘LEVEL’ output by this command.</td>
</tr>
<tr>
<td></td>
<td>Verify entries in column ‘C’ show ‘Y’, which indicates coherence.</td>
</tr>
<tr>
<td></td>
<td>Verify entries in column ‘T’ show ‘N’ (except the E5-MDAL), which indicates that the database is not in transition.</td>
</tr>
<tr>
<td></td>
<td>Verify all entries in the database LEVEL column are the same. LEVEL is a value, which varies depending on the system.</td>
</tr>
<tr>
<td></td>
<td>If the STDBY databases are not coherent or not at the correct level, repeat Procedure 3, step 8.</td>
</tr>
<tr>
<td></td>
<td>Verify that the MPS databases are coherent.</td>
</tr>
<tr>
<td>3</td>
<td>When the command completes, remove the target-release RMD from the drive slot.</td>
</tr>
</tbody>
</table>

#### Command Example:

```
rept_stat-db:display=all
```

#### Command Output:

```
DATABASE STATUS: => OK <=
TDM 1114 ( ACTV )
C    LEVEL    TIME LAST BACKUP    C    LEVEL    TIME LAST BACKUP
FD BKUP Y      YYY YY-MM-DD hh:mm:ss TTTT Y      YYY YY-MM-DD hh:mm:ss TTTT
FD CRNT Y      XXX                        Y      XXX
MCAP 1113                         MCAP 1115
RD BKUP -    -         -        -         Y      YYY YY-MM-DD hh:mm:ss TTTT
USB BKP -    -         -        -         -    -         -        -
CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   EXCEPTION
SS7ANSI    1101  Y  N  XXX         06-04-19 12:13:02       -
SS7ANSI    1103  Y  N  XXX         06-04-19 12:13:02       -
GLS        1104  Y  N  XXX         06-04-19 12:13:02       -
SS7ANSI    1105  Y  N  XXX         06-04-19 12:13:02       -
SS7ANSI    1106  Y  N  XXX         06-04-19 12:13:02       -
VSCCP      1107  Y  N  XXX         06-04-19 12:13:02       -
VSCCP      1111  Y  N  XXX         06-04-19 12:13:02       -
OAM-RW     1113  -  -      -           -        -          -
TDM CRNT   1114  Y  N  XXX         06-04-19 12:13:02       -
TDM BKUP   1114  Y      XXX                        Y      XXX
E5MDAL     1117  Y      XXX                        Y      XXX
```

#### Storage Instructions:

Store the RMD in a safe location.
**Procedure 22: Session 2 Completion**

<table>
<thead>
<tr>
<th>STEP</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue status command for troubles.</td>
<td>REPT-STAT-TRBL</td>
</tr>
<tr>
<td>2</td>
<td>Response to command is displayed.</td>
<td>eagl est p YY:MM DD hh:mm EST PPP XX.x.x.x.YY.y.y</td>
</tr>
<tr>
<td></td>
<td>If UAM 0002 is present where XXXX is a flash GPL (i.e. BLMCAP or BLIXP), record it below:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If any GPL is recorded contact My Oracle Support and report the GPL alarm.</td>
<td>Command Completed.</td>
</tr>
</tbody>
</table>

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

This concludes SESSION TWO
6. RECOVERY PROCEDURES
Before executing any of these procedures, contact My Oracle Support at Oracle Support Contacts Global Directory [see Appendix G.]. In the event that other platforms are being upgraded in parallel, a determination whether recovery action is required on those platforms is required. Persons performing the upgrade should be familiar with these upgrade documents.

6.1 Backout Setup Procedures
Execute this section only if there is a problem and it is desired to revert back to the pre-upgrade version of the software.

Warning
Do not attempt to perform these backout procedures without first contacting the My Oracle Support at Oracle Support Contacts Global Directory

6.2 Revert MASP, MCPM and IPSM to VxWorks6.4
Execute this section only if there is a problem and it is desired to revert to the pre-upgrade version of the software for the MASP, MCPM and IPSM cards.

If the source release is 46.5 or prior and the target release is 46.6 or later, then execute Procedure 23 through Procedure 27.

If system is running on VxWorks6.9 but pre-upgrade version is on VxWorks6.4 then following are the steps to revert the system to former state:

- First revert the cards to VxWorks6.4 (Section 6.2 procedure 23 to procedure 27)
- Follow the normal recovery procedure A, B or C

Procedure 23: Revert IPS (ENET-B) cards on VxWorks6.4

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If source release is 46.5 or prior, issue the card status command. REPT-STAT- CARD: APPL=IPS</td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td>3</td>
<td>For each card listed above, issue the GPL status command. REPT-STAT- GPL: LOC=XXXX</td>
</tr>
<tr>
<td>4</td>
<td>Response to the GPL status command is displayed.</td>
</tr>
</tbody>
</table>

Where XXXX is the location of the IPSM card.

If card is running BLDC32, go to next step. Otherwise repeat Step 3 for IPSM cards on VxWorks6.4.
5. Issue command to inhibit the card.

```
INH-CARD: LOC=XXXX
```

(Where XXXX is the location of the IPSM card use in previous command.)

6. Response to the inhibit command is displayed.

```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
Card has been inhibited.
```

```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
Command Completed.
```

**Note:** Wait for the card to boot and return to the IMT bus.

7. Download target-release flash to the IPSM card.

```
INIT-FLASH: LOC=XXXX: CODE=APPR: GPL=BLMCAP
```

(Where XXXX is the location used in the previous command)

8. Response to flash initialization is shown.

```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
FLASH Memory Download for card xxxx started.
```

```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
FLASH Memory Download for card xxxx completed.
```

```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
* 8003.0004 * GPL SYSTEM BLMCAP Card is running non-activated GPL
```

**Note:** Wait for card to boot and return to the IMT bus.

9. Issue command to activate the flash image.

```
ACT-FLASH: LOC=XXXX
```

(Where XXXX is the location of the IPSM card used in the previous command)

10. Response to the activate command is displayed.

```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
FLASH Memory Activation for card XXXX Started.
```

```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
FLASH Activation for card XXXX Completed.
```

11. Issue the allow command to reload the IPSM card.

```
ALW CARD: LOC=XXXX
```

(Where XXXX is the location of the IPSM card used in the previous command)

12. Response to allow-card command is shown.

```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
Card has been allowed.
```

13. Issue command to report the GPLs running on the IPSM card.

```
REPT-STAT-GPL: LOC=XXXX
```

(Where XXXX is the location of the IPSM card used in the previous command)


```
eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-YY.y.y
GPL Auditing ON
```

```
GPL IPSHC XXXX RUNNNG XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX TRIAL
BLMCAP YYYY-YYYY YYYY-YYYY YYYY-YYYY-YYYY
Command Completed.
```

15. If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 14 for the next card listed in Step 2.

**Note:** Wait till this flashed IPSM card to complete reloading before proceeding to next step.
Procedure 24: Revert IPSM application running on SLIC to VxWorks6.4

This procedure reverts the SLIC card running the IPS application to VxWorks6.4. Execute the below procedure for every SLIC card with IPS application present in the system.

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

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If source release is 46.5 or prior, issue the card status command. REPT-STAT- CARD:APPL=IPS</td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed. eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y CARD VERSIO TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC IPSHC 1S-NR Active ---- XXXX XXX-XXX-XXX SLIC IPSHC 1S-NR Active ---- Command Completed.</td>
</tr>
<tr>
<td>3</td>
<td>For each card with type equal to SLIC listed above, issue the GPL status command. REPT-STAT- GPL:LOC=XXXX (Where XXXX is the location of the IPSM/SLIC card slot listed in previous step.)</td>
</tr>
<tr>
<td>5</td>
<td>Issue command to inhibit the card. INH- CARD:LOC=XXXX (Where XXXX is the location of the IPSM/SLIC card)</td>
</tr>
<tr>
<td>6</td>
<td>Response to the inhibit command is displayed. eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y Card has been inhibited. eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y Command Completed.</td>
</tr>
<tr>
<td>7</td>
<td>Issue flash command to download target-release flash to the IPSM/SLIC card. INIT-FLASH:LOC=XXXX CODE=APPR:GPL=BLSLC32 (Where XXXX is the location used in the previous command)</td>
</tr>
<tr>
<td>8</td>
<td>Response to flash initialization is shown. eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y FLASH Memroy Download for card xxxx started. eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y FLASH Memroy Download for card xxxx completed. eaglestp YYYY MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y 8003.0004 GPL SYSTEM BLSLC32 Card is running non-activated GPL</td>
</tr>
</tbody>
</table>

Note: Wait for the card to boot and return to the IMT bus.
### Procedure 24: Revert IPSM application running on SLIC to VxWorks 6.4

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
</table>
| 9    | Issue command to activate the flash image.  

**ACT-FLASH:loc=XXXX**  
(Where XXXX is the location of the IPSM/SLIC card used in the previous command.)

| 10   | Response to the activate command is displayed.  

```shell
eaglestp YY-MM-DD hh:mm:ss EST XXX.X.X.X-zzzt EAGLE XX.x.x.x-YY.xxx
FLASH Memory Activation for card XXXX Started.
```

| 11   | Issue the allow command to reload the IPSM/SLIC card.  

**ALW CARD: LOC=XXXX**  
(Where XXXX is the location of the IPSM/SLIC card used in the previous command.)

| 12   | Response to allow-card command is shown.  

```shell
eaglestp YY-MM-DD hh:mm:ss EST XXX.X.X.X-zzzt EAGLE XX.x.x.x-YY.xxx
Card has been allowed.
```

| 13   | Issue command to report GPL status.  

**REPT-STAT-GPL: LOC=XXXX**  
(Where XXXX is the location of the IPSM/SLIC card used in the previous command.)

| 14   | Response to GPL status command.  

```shell
eaglestp YY-MM-DD hh:mm:ss EST XXX.X.X.X-zzzt EAGLE XX.x.x.x-YY.xxx
GPL Auditing ON
```

| 15   | Verify that IPSM/SLIC card is running BLSLC32 flash GPL.  

| 15   | If this is last card listed in Step 2, continue to next procedure.  
Otherwise, repeat Steps 3-Step 14 for the next card listed in Step 2.  

**Note:** Wait till this flashed IPSM/SLIC card to complete reloading before proceeding to next step.
# Procedure 25: Revert MCPM cards on VxWorks6.4

This procedure is to revert the MCPM cards to VxWorks6.4.

Execute the below procedure for every MCPM card present in the system.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If source release is 46.5 or prior, issue the card status command. <strong>REPT- STAT- CARD: APPL=MCP</strong></td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td></td>
<td>eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</td>
</tr>
<tr>
<td></td>
<td>CARD VERSI ON TYPE GPL PST SST AST</td>
</tr>
<tr>
<td></td>
<td>XXXX XXX-XXX-XXX MCPM MCPHC IS-NR Active ----</td>
</tr>
<tr>
<td></td>
<td>XXXX XXX-XXX-XXX MCPM MCPHC IS-NR Active ----</td>
</tr>
<tr>
<td></td>
<td>Command Completed.</td>
</tr>
<tr>
<td>3</td>
<td>For each card listed above, issue the GPL status command. <strong>REPT- STAT- GPL: LOC=XXXX</strong></td>
</tr>
<tr>
<td></td>
<td>(Where XXXX is the location of the MCPM card)</td>
</tr>
<tr>
<td>4</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td></td>
<td>eaglestp YY-MM-DD hh:mm:ss TTT TTTT EAGLE XX.x.x.x-YY.y.y</td>
</tr>
<tr>
<td></td>
<td>GPL CARD RUNN ING APPROVED TRIAL</td>
</tr>
<tr>
<td></td>
<td>MCPHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX</td>
</tr>
<tr>
<td></td>
<td>BLDC32 YYYY-YYYY YYYY-YYYY YYYY-YYYY</td>
</tr>
<tr>
<td></td>
<td>Command Compl ed.</td>
</tr>
<tr>
<td>5</td>
<td>Issue command to inhibit the card. <strong>INH- CARD: LOC=XXXX</strong></td>
</tr>
<tr>
<td></td>
<td>(Where XXXX is the location of the MCP card used in previous command.)</td>
</tr>
<tr>
<td>6</td>
<td>Response to the inhibit command is displayed</td>
</tr>
<tr>
<td></td>
<td>eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</td>
</tr>
<tr>
<td></td>
<td>Card has been inhibited.</td>
</tr>
<tr>
<td></td>
<td>eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</td>
</tr>
<tr>
<td></td>
<td>Command Compl ed.</td>
</tr>
<tr>
<td></td>
<td>Note: Wait for the card to boot and return to the IMT bus.</td>
</tr>
<tr>
<td>7</td>
<td>Download target-release flash to the MCPM card. <strong>INI T- FLASH: LOC=XXXX CODE=APPR: GPL=BLMCAP</strong></td>
</tr>
<tr>
<td></td>
<td>(Where XXXX is the location used in the previous command)</td>
</tr>
<tr>
<td>8</td>
<td>Response to flash initialization is shown.</td>
</tr>
<tr>
<td></td>
<td>eaglestp YY-MM-DD hh:mm:ss TTT TTTT EAGLE XX.x.x.x-YY.y.y</td>
</tr>
<tr>
<td></td>
<td>FLASH Memory Download for card xxxx started.</td>
</tr>
<tr>
<td></td>
<td>eaglestp YY-MM-DD hh:mm:ss TTT TTTT EAGLE XX.x.x.x-YY.y.y</td>
</tr>
<tr>
<td></td>
<td>FLASH Memory Download for card xxxx completed.</td>
</tr>
<tr>
<td></td>
<td>eaglestp YY-MM-DD hh:mm:ss TTT TTTT EAGLE XX.x.x.x-YY.y.y</td>
</tr>
<tr>
<td></td>
<td>* 8003.0004 * GPL SYSTEM BLMCAP Card is running non-activated GPL</td>
</tr>
<tr>
<td></td>
<td>Note: Wait for card to boot and return to the IMT bus.</td>
</tr>
<tr>
<td>9</td>
<td>Issue command to activate the flash image. <strong>ACT- FLASH loc=XXXX</strong></td>
</tr>
<tr>
<td></td>
<td>(Where XXXX is the location of the MCPM card used in the previous command)</td>
</tr>
</tbody>
</table>
**Procedure 25: Revert MCPM cards on VxWorks6.4**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Response to the activate command is displayed.</td>
</tr>
<tr>
<td>11</td>
<td>Run the target-release GPL on the MCPM card.</td>
</tr>
<tr>
<td>12</td>
<td>Response to allow-card command is shown.</td>
</tr>
<tr>
<td>13</td>
<td>Issue command to report the GPLs running on the MCPM card.</td>
</tr>
<tr>
<td>14</td>
<td>Response to GPL status command.</td>
</tr>
<tr>
<td>15</td>
<td>If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 14 for the next card listed in Step 2.</td>
</tr>
</tbody>
</table>

**Notes:**
- **Step 10:**
  - eaglestp YY-MM-DD hh:mm:ss EST XX.x.x.x.x-YY.y.y
  - FLASH Memory Activation for card XXXX Started.
  - eaglestp YY-MM-DD hh:mm:ss EST XX.x.x.x.x-YY.y.y
  - FLASH Activation for card XXXX Completed.

- **Step 11:**
  - ALW CARD: LOC=XXXX
  - (Where XXXX is the location of the MCP card used in the previous command.)

- **Step 12:**
  - eaglestp YY-MM-DD hh:mm:ssc TTTT EAGLE XX.x.x.x.x-YY.y.y
  - Card has been allowed.

- **Step 13:**
  - REPT-STAT- GPL: LOC=XXXX
  - (Where XXXX is the location of the MCP card used in the previous command.)

- **Step 14:**
  - eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y
  - GPL Auditing ON
  - GPL MCHC XXXX XX-XX-XXX XXX-XXX-XXX YYY-YYY-YYY

- **Step 15:**
  - **Note:** Wait till this flashed MCPM card to complete reloading before proceeding to next step.
Procedure 26: Revert MCPM application running on SLIC card to VxWorks6.4

This procedure is to revert the SLIC card with MCPM application to VxWorks6.4.

Execute the below procedure for every SLIC card running the MCP application present in the system.

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

Should this procedure fail, contact My Oracle Support and ask for upgrade assistance.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If source release is 46.5 or prior, issue the card status command.</td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td>3</td>
<td>For each MCPM/SLIC card listed above, issue the GPL status commend.</td>
</tr>
<tr>
<td>4</td>
<td>Response to the card status command is displayed.</td>
</tr>
<tr>
<td></td>
<td>If card is running BLSL932, go to next step. Otherwise repeat Step 3 for next card in above list in step 2.</td>
</tr>
<tr>
<td>5</td>
<td>Issue command to inhibit the card.</td>
</tr>
<tr>
<td>6</td>
<td>Response to the inhibit command is displayed.</td>
</tr>
<tr>
<td></td>
<td>Note: Wait for the card to boot and return to the IMT bus.</td>
</tr>
<tr>
<td>7</td>
<td>Issue flash command to download target-release flash to the MCPM card.</td>
</tr>
<tr>
<td>8</td>
<td>Response to flash initialization is shown.</td>
</tr>
<tr>
<td></td>
<td>Verify UAM 0004 is displayed.</td>
</tr>
<tr>
<td>9</td>
<td>Issue command to activate the flash image.</td>
</tr>
</tbody>
</table>

(Where XXXX is the location used in the previous command.)
### Procedure 26: Revert MCPM application running on SLIC card to VxWorks 6.4

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 10   | Response to the activate command is displayed.  
  ```
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
FLASH Memory Activation for card XXXX Started.  
;  
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
FLASH Activation for card XXXX Completed.  
;  
```
| 11   | Run the target-release GPL on the MCPM card  
  (Where XXXX is the location of the MCPM/SLIC card used in the previous command)  
  ```
 flashes: LOC=XXXX  
```
| 12   | Response to allow-card command is shown.  
  ```
eaglestp YY-MM-DD hh:mm:ssc TTTT EAGLE XX.x.x.x.x-YY.y.y  
Card has been allowed.  
;  
```
| 13   | Retrieve status of the MCPM/SLIC card.  
  ```
rept-STAT-GPL:LOC=XXXX  
```
| 14   | Response to GPL status command.  
  ```
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y  
GPL Auditing ON  
  
|   | GPL CARD RUNNING APPROVED TRIAL  
|   | MCPHC XXXX XXX-XXX-XXX XXX-XXX-XXX -----------  
|   | BLSLC32 YYYY-YYYY XXX-XXX-XXX YYYY-YYYY-YYYY  
|   | Command Completed.  
| 15   | If this is last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3-Step 14 for the next card listed in Step 2.  
  **Note:** Wait till this flashed MCPM/SLIC card to complete reloading before proceeding to next step.
**Procedure 27: Revert the MASP card to VxWorks6.4**

This procedure is to revert the MASP cards to VxWorks6.4.

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

SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.

<table>
<thead>
<tr>
<th>STEP</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1 | If source release is 46.5 or prior, issue the card status to verify the location of the active/standby MASP slots.  
   **REPT- STAT- CARD: APPL=OAM**  
   ```
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y  
   CARD   VERSION  TYPE   GPL  PST    SST    AST  
   1113    XXX-XXX-XXX E5MCAP  OAMHC  IS-NR  Active  -----  
   1115    XXX-XXX-XXX E5MCAP  OAMHC  IS-NR  Standby -----  
   Command Completed.
   ``` |
| 2 | Response to the card status command is displayed.  
   Record the MASP in the standby role:  
   Standby: 1113 or 1115 |
| 3 | Report the GPLs running on the card location.  
   **REPT- STAT- GPL: LOC=XXXX**  
   *(Where XXXX is the location of the standby MASP slot display in the above step.)* |
| 4 | Response from the retrieve command is displayed.  
   Verify that card is running the BLDC32 flash GPL.  
   ```
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y  
   GPL    CARD       RUNNING  APPROVED  TRIAL  
   OAMHC   XXXX      XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX  
   BLDC32  YYYY-YYYY-YYY YYYY-YYYY-YYY YYYY-YYYY-YYY  
   Command Completed.
   ``` |
| 5 | Issue the command to inhibit the standby MASP.  
   **INH- CARD: LOC=XXXX**  
   *(Where XXXX is the location of the standby MASP slot used in the previous command.)* |
| 6 | Response to the inhibit command is displayed.  
   Verify UAM 514 is displayed.  
   ```
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y  
   Card is inhibited.  
   ;
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y  
   ** 5045. 0514 ** CARD XXXX OAMHC  Standby MASP is inhibited  
   ;
   ```  
   **Note:** Wait for the card to boot and return to the IMT bus. |
| 7 | Issue pass command to enable the Shell command.  
   **PASS: LOC=XXXX SHELLCMD=" - enable"**  
   *(Where XXXX is the location of the Standby MASP)* |
| 8 | Response to the pass command.  
   ```
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y  
   PASS: Command sent to card  
   ;
   ``` |
| 9 | Set the global variable to revert the bootloader.  
   **PASS: LOC=XXXX SHELLCMD="g_backout_6_9_bootloader=1"**  
   *(Where XXXX is the location of the Standby MASP)* |
| 10 | Response to the pass command.  
   ```
   eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y  
   PASS: Command sent to card  
   ;
   ```
Procedure 27: Revert the MASP card to VxWorks6.4

11 Issue flash command to download the bootloader image.

I NI T- FLASH: LOC=XXXX: MODE=RPLCEBL: BI TS=32
(Where XXXX is the location of the Standby MASP slot used in the previous command.)

12 Response to flash command is shown.

eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y
BOOTLOADER change for card XXXX SUCCESSFUL.
; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y
Command Completed.

13 Download target-release flash to the standby MASP card.

I NI T- FLASH: LOC=XXXX: CODE=APPR: GPL=BLMCAP
(Where XXXX is the location used in the previous command)

14 Response to flash initialization is shown.

Verify UAM 0004 is displayed.

eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y
FLASH Memory Download for card xxxx started.
; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y
FLASH Memory Download for card xxxx completed.
; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y
* 8003.0004 * GPL SYSTEM BLMCAP Card is running non-activated GPL

Note: Wait for card to boot and return to the IMT bus.

15 Retrieve the GPLs running on the card location.

REPT- STAT- GPL: LOC=XXXX
(Where XXXX is the location of the standby MASP slot used in the previous command)

16 Response to the GPL status command is displayed.

Verify that card is running BLMCAP GPL.

eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y
GPL CARD RUNNING APPROVED TRIAL
OAMHC XXXX ********* ********* ********* BLMCAP YYY-YYY-YYY+ YYY-YYY-YYY YYY-YYY-YYY
Command Completed.

17 Issue command to activate the flash on standby MASP.

ACT- FLASH: LOC=XXXX
(Where XXXX is the location of the standby MASP used in the previous command)

18 Response to the activate command is displayed.

Issue command to allow the standby MASP to load.

ALW CARD: LOC=XXXX
(Where XXXX is the location of the standby MASP used in the previous command)

19 Response to allow-card command is shown.

Issue command to report the status of the Standby MASP.

REPT- STAT- CARD: LOC=XXXX
Procedure 27: Revert the MASP card to VxWorks6.4

22. Response from the retrieve command is displayed.

Verifying that Standby MASP card running is running BLMCAP flash GPL.

23. If this is the first pass through this procedure, issue command to boot the active MASP.

Otherwise, go to Step 29.

24. Response to card initialization is shown.

25. Issue the command to log back in to the system.

26. Response to login command is displayed.

Ignore any login failure message.

27. Echo command input to capture terminal.

28. Response to print capture command is displayed.

Repeat Steps 1 – 22 for the formerly active MASP.

29. Issue the command to display the cards running with BLDC32 flash GPL.

30. Response from the GPL status command is displayed.

Verify that no cards are displayed.
### 6.3 Recovery Procedure A

**Procedure 28: Load and Run Source OAM**

Perform this Recovery Procedure in order to copy the BLMCAP GPLs from the source after performing procedures 29, 30, 31, or 32 when upgrading with the fixed workspace.

**NOTE:** If the source release is 46.5 or prior, perform this procedure only when the MASPs are running the BLMCAP flash image. Otherwise Procedures 23 - 27 must be performed before this procedure.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

**When directed to by My Oracle Support, execute this procedure:**

After the completion of Procedure 29, Procedure 30, Procedure 31, Procedure 32 (but not Procedure 33).

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If a USB drive is present in the system, remove it.</td>
</tr>
<tr>
<td>2</td>
<td>If recovering from release 46.3 or later back to a release of 46.2 or earlier, go to step 16, else continue to next step.</td>
</tr>
<tr>
<td>3</td>
<td>Insert pre-upgrade source release media into the active MASP. Once inserted, allow time for the source-release RMD to be detected by the system.</td>
</tr>
<tr>
<td>4</td>
<td>Issue the command to retrieve BLMCAP application data. <code>rtrv-gpl : gpl = blmcap</code></td>
</tr>
<tr>
<td>5</td>
<td>Response to <code>rtrv-gpl</code> command is displayed. Record the “REMOVE TRIAL” version.</td>
</tr>
<tr>
<td></td>
<td>Sample response: <code>eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td>6</td>
<td>Issue the command to change the gpl. <code>chg-gpl : gpl = blmcap : ver=xxx-xxx-xxx</code> <em>(Where xxx-xxx-xxx is the GPL version recorded in the previous step)</em></td>
</tr>
<tr>
<td>7</td>
<td>Response to <code>chg-gpl</code> command is displayed.</td>
</tr>
<tr>
<td></td>
<td>Sample response: <code>eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>BLMCAP upload to 1116 completed</td>
</tr>
<tr>
<td></td>
<td>System Release ID table upload to 1116 completed</td>
</tr>
<tr>
<td>8</td>
<td>Issue the report card status command. <code>rept-stat-card : appl = oam</code></td>
</tr>
</tbody>
</table>
Procedure 28: Load and Run Source OAM

9. Response to the card status command is displayed.
   Record which MASP is Active and Standby.
   Record the card locations of the MASPs:
   Act MASP ________
   Stby MASP ________

   eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
   CARD    VERSI ON    TYPE    GPL        PST            SST        AST
   1113    XXX-XXX-XXX E5MCAP  OAMHC      IS-NR          Active     -----  
   1115    XXX-XXX-XXX E5MCAP  OAMHC      IS-NR          St andby     -----  
   Command Completed.

10. Remove the source-release RMD from the drive slot.
    Store RMD in a safe place.

11. Repeat step 8 until the standby location is IS-NR in step 9.

12. Force a switchover by issuing initialize-card command.
    init-card: loc=YYYY
    Where YYYY is the active MASP location recorded in step 9.

13. Issue the command to log in to the system.
    login: uid=XXXXXX
    (Where XXXXXX is a valid login ID)

15. Response to login command is displayed.
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
    User logged in on terminal X

16. Issue the command to initialize both MASP cards.
    init-card: appl=oam

17. Response to initialize command is displayed.
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    * 0261.0013 * CARD 111X OAMHC       Card is isolated from the system
    ASSY SN: xxxxxxxx
    ;
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
    5001.0009    CARD 111X OAMHC       MASP became active
    ASSY SN: xxxxxxxx
    ;
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
    5038.0014    CARD XXXX OAMHC        Card is present
    ASSY SN: xxxxxxxx
    ;

18. Continue to procedure C if directed by the My Oracle Support. Otherwise verify the system with the EAGLE health check [1].

---

13 The Standby MASP may report IS-ANR (and the Standby TDM may report 00S-MT|Isolated.) If so, check LEDs on the card. If LEDs are green, it is OK to proceed. This condition will clear after step 21.
14 Command REPT-STAT-GPL:DISPLAY=ALL can be used to verify this step.
### 6.4 Recovery Procedure B

**Procedure 29: Full Fallback using Spare E5-MASP**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If upgrade using the fixed disk method, use Procedure 30. Only perform this procedure if directed by My Oracle Support.</td>
</tr>
<tr>
<td>2</td>
<td>Issue the report card status command. <code>rept - stat - card: appl =oam</code></td>
</tr>
<tr>
<td>3</td>
<td>Response to the card status command is displayed. Eaglestop YY-MM-DD hh:mm:ss TTTT XX.x.x.x.x -YY.y.y</td>
</tr>
<tr>
<td></td>
<td>Determine MASP activity. Record which MASP is Active and Standby.</td>
</tr>
<tr>
<td></td>
<td>Record the card locations of both sets of MASPs:</td>
</tr>
<tr>
<td></td>
<td>Act MASP ________</td>
</tr>
<tr>
<td></td>
<td>Sbty MASP ________</td>
</tr>
<tr>
<td></td>
<td>For this sample output, 1113 is active and 1115 is standby.</td>
</tr>
<tr>
<td>4</td>
<td>Remove USB drive from system if present.</td>
</tr>
<tr>
<td>5</td>
<td>Place spare E5-MASP in system. Slide the MASP H/S switch (SW3) on the standby MASP up to the unlocked position (Wait for all drive LEDs to transition to a steady blue). Remove the standby E5-MASP card determined in step 2. Insert the spare E5-MASP card. Slide the MASP H/S switch (SW3) on the new standby MASP down to the locked position (Wait for the MASP H/S LED to transition from blinking blue to off and the MASP to come up in standby mode). Note: UAMs are generated during this step. An audible alarm is generated. Wait for the new standby E5-MASP to come up in standby mode and system returns to duplex mode.</td>
</tr>
<tr>
<td>6</td>
<td>Insert the source-release media into the system. A source-release USB drive in the active E5-MASP. Once inserted, allow time for the source-release RMD to be detected by the system.</td>
</tr>
</tbody>
</table>

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

**SHOULD THIS PROCEDURE FAIL, CONTACT** My Oracle Support AND **ASK FOR UPGRADE ASSISTANCE.**

When directed to by My Oracle Support, execute this procedure.
**Procedure 29: Full Fallback using Spare E5-MASP**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command/Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>After the standby MASP is available, issue the command to initialize the active MASP.</td>
<td><code>init-card:loc=XXXX</code> (Where <code>XXXX</code> is the location of the ACTIVE MASP slot)</td>
</tr>
<tr>
<td>8</td>
<td>Response to command is displayed.</td>
<td><code>eagl estp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>Command entered at terminal #10.</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>eagl estp 09-01-02 08:28:34 EST Rel XX.x.x.XX.x.x</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>ASSY SN: xxxxxxxx</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>5038.0014 CARD XXXX OAMHC Card is present</code></td>
</tr>
<tr>
<td>9</td>
<td>Issue the command to log in to the system.</td>
<td><code>logi n: uid=xxxxxxx</code> (Where <code>xxxxxxx</code> is a valid login ID)</td>
</tr>
<tr>
<td>10</td>
<td>Response to login command is displayed.</td>
<td><code>eagl estp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td>11</td>
<td>Inhibit the standby MASP.</td>
<td><code>INH CARD:LOC=XXXX</code> (Where <code>XXXX</code> is location of standby MASP)</td>
</tr>
<tr>
<td>12</td>
<td>Response to the command is displayed.</td>
<td><code>eagl estp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>Command Completed.</code></td>
</tr>
<tr>
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</tr>
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</tr>
<tr>
<td>13</td>
<td>Put the E5-MASP system in simplex mode.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Issue the retrieve GPL command to verify source-release GPLs.</td>
<td><code>rtrv-gpl</code></td>
</tr>
<tr>
<td>15</td>
<td>Response to the retrieve command is displayed.</td>
<td><code>eagl estp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Procedure 29: Full Fallback using Spare E5-MASP

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Response to retrieve command is displayed. <strong>Response to retrieve command is displayed.</strong>&lt;br&gt;Record if collection is on or off:<em><strong><strong><strong><strong><strong>&lt;br&gt;If COLLECT=ON, continue to next step. Otherwise, go to Step 20. <strong>Response to retrieve command is displayed.</strong>&lt;br&gt;Record if collection is on or off:</strong></strong></strong></strong></strong></em>&lt;br&gt;If COLLECT=ON, continue to next step. Otherwise, go to Step 20.</td>
</tr>
<tr>
<td>18</td>
<td>Issue the command to turn off measurement collection. <strong>Issue the command to turn off measurement collection.</strong>&lt;br&gt;<code>chg-meas:collect=off</code> <strong>Issue the command to turn off measurement collection.</strong>&lt;br&gt;<code>chg-meas:collect=off</code></td>
</tr>
<tr>
<td>19</td>
<td>Response to the change command is displayed. <strong>Response to the change command is displayed.</strong>&lt;br&gt;<code>chg-meas:collect=off</code>&lt;br&gt;Command entered at terminal #10. <strong>Response to the change command is displayed.</strong>&lt;br&gt;<code>chg-meas:collect=off</code>&lt;br&gt;Command entered at terminal #10.</td>
</tr>
<tr>
<td>20</td>
<td>Inhibit the standby MASP. <strong>Inhibit the standby MASP.</strong>&lt;br&gt;<code>inh-card:loc=XXXX</code>&lt;br&gt;(Where XXXX is location of standby MASP) <strong>Inhibit the standby MASP.</strong>&lt;br&gt;<code>inh-card:loc=XXXX</code>&lt;br&gt;(Where XXXX is location of standby MASP)</td>
</tr>
<tr>
<td>21</td>
<td>Response to the command is displayed. <strong>Response to the command is displayed.</strong>&lt;br&gt;<code>inh-card:loc=XXXX</code>&lt;br&gt;Card has been inhibited.&lt;br&gt;<code>inh-card:loc=XXXX</code>&lt;br&gt;Card has been inhibited.</td>
</tr>
<tr>
<td>22</td>
<td>Bring the standby E5-MASP system back on the bus. <strong>Bring the standby E5-MASP system back on the bus.</strong>&lt;br&gt;Slide the E5-MASP H/S switch (SW3) on the standby MASP down to the locked position (Wait for E5MASP H/S LED to transition from blinking blue to a steady blue and the card to return to the IMT bus.) <strong>Bring the standby E5-MASP system back on the bus.</strong>&lt;br&gt;Slide the E5-MASP H/S switch (SW3) on the standby MASP down to the locked position (Wait for E5MASP H/S LED to transition from blinking blue to a steady blue and the card to return to the IMT bus.)</td>
</tr>
<tr>
<td>23</td>
<td>Issue the command to initialize the flash memory. <strong>Issue the command to initialize the flash memory.</strong>&lt;br&gt;<code>init-flash:code=appr:loc=XXXX</code>&lt;br&gt;Where XXXX is the location for the Standby MASP. <strong>Issue the command to initialize the flash memory.</strong>&lt;br&gt;<code>init-flash:code=appr:loc=XXXX</code>&lt;br&gt;Where XXXX is the location for the Standby MASP.</td>
</tr>
<tr>
<td>24</td>
<td>Response to the init flash command is displayed. <strong>Response to the init flash command is displayed.</strong>&lt;br&gt;Wait for the downloading to complete. <strong>Response to the init flash command is displayed.</strong>&lt;br&gt;Wait for the downloading to complete.</td>
</tr>
<tr>
<td>25</td>
<td>Issue the command to activate the flash on the standby MASP. <strong>Issue the command to activate the flash on the standby MASP.</strong>&lt;br&gt;<code>act-flash:loc=XXXX</code>&lt;br&gt;(Where XXXX is the location for the Standby MASP.) <strong>Issue the command to activate the flash on the standby MASP.</strong>&lt;br&gt;<code>act-flash:loc=XXXX</code>&lt;br&gt;(Where XXXX is the location for the Standby MASP.)</td>
</tr>
<tr>
<td>26</td>
<td>Response to the activate command is displayed. <strong>Response to the activate command is displayed.</strong>&lt;br&gt;<code>act-flash:loc=XXXX</code>&lt;br&gt;Command entered at terminal #10. <strong>Response to the activate command is displayed.</strong>&lt;br&gt;<code>act-flash:loc=XXXX</code>&lt;br&gt;Command entered at terminal #10.</td>
</tr>
<tr>
<td>27</td>
<td>Issue the command to allow card. <strong>Issue the command to allow card.</strong>&lt;br&gt;<code>alw-card:loc=XXXX</code>&lt;br&gt;Where XXXX is the location for the Standby MASP. <strong>Issue the command to allow card.</strong>&lt;br&gt;<code>alw-card:loc=XXXX</code>&lt;br&gt;Where XXXX is the location for the Standby MASP.</td>
</tr>
</tbody>
</table>

---

15 If executed, this step causes the database level to increment.
Procedure 29: Full Fallback using Spare E5-MASP

28. Response to the command is displayed.

```
eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y
```

Card has been allowed.

```
eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y
```

Command Compl ed.

29. Issue the report card status command.

```
rept-stat-card: appl =oam
```

30. Response from the retrieve command is displayed.

```
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
```

Verify that the standby MASP is running the upgrade source release GPL.

```
CARD   VERSION     TYPE    APPL       PST           SST        AST
1113   XXX-XXX-XXX E5MCAP  OAMHC      IS-NR         Active     -----   
1115   XXX-XXX-XXX E5MCAP  OAMHC      IS-NR         Standby    -----   
```

Command Completed.

31. Issue the command to display security log status.

```
rept-stat-seculog
```

32. Response to the command is displayed.

```
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
```

If the ENTRIES column displays any value other than 0 for the Standby ROLE, proceed to the next step.

Otherwise, go to step 40.

33. Issue the command to copy the security log from the standby disk.

```
copy-seculog:slog=stb:dfile=upg.procC
```

34. Response to the command is displayed.

```
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
```

Security log on TDM 111X copied to file upg28.procC on TDM 111Y

```
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
```

Command entered at terminal #10.

```
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
```

Copy security log command entered at terminal #10.

```
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
```

Security log on TDM 111X copied to file upg28.procC on TDM 111Y

```
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
```

Security log exception cleared

35. Issue the command to display the FTA directory.

```
disp-FTA-dir
```

```
FILENAME                         LENGTH   LAST MODIFIED     LBA
YYMMDDs.log                      2560256  99-01-03 10:18:44 388769
YYMMDDa.log                      2560256  99-01-03 10:19:20 393770
m60_lnp.csv                      0        99-01-03 13:10:38 398771
```

3 File(s) 21093376 bytes free

36. Response to the command is displayed.

```
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
```

File Transfer Area Directory of fixed disk 1114

```
FILENAME                         LENGTH   LAST MODIFIED     LBA
YYMMDDs.log                      2560256  99-01-03 10:18:44 388769
YYMMDDa.log                      2560256  99-01-03 10:19:20 393770
m60_lnp.csv                      0        99-01-03 13:10:38 398771
```

3 File(s) 21093376 bytes free

37. Issue the command to delete ALL files in the transfer area.

```
dl-FTA:all=Yes
```

38. Response to the delete command is displayed.

```
eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y
```

```
dl-FTA:all=Yes:loc=XXXX
```

Command entered at terminal #nn.

39. Repeat Steps 31-34
**Procedure 29: Full Fallback using Spare E5-MASP**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>Issue the command to copy to the standby disk.</td>
</tr>
</tbody>
</table>
|      | `copy-disk: dl=XXXX force=yes: format=yes`  
(Where `XXXX` is the location of the STANDBY TDM) |
| 41   | Response to the copy-disk command is displayed. |
|      | `eaglestyp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y`  
Copy-disk (fixed): from active (YYYY) to standby (XXXX) started.  
Extended processing required, please wait. |
|      | `eaglestyp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y`  
Copy-disk (fixed): from standby (XXXX) to active (YYYY) started.  
Measurements may be allowed now if desired. |
|      | `eaglestyp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y`  
0485.0014 CARD 1115 OAMHC Card is present |
| 42   | Issue the command to display card status. |
|      | `rept-stat-card` |
| 43   | Response to the card status command is displayed. |
|      | `eaglestyp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y`  
rept-stat-card  
Command entered at terminal #10. |
|      | `CARD VERSI ON TYPE APPL EST SST AST`  
1101 XXX-XXX-XXX DSM SCCPHC 15-NR Active -----  
1102 XXX-XXX-XXX DSM SCCPHC 15-NR Active -----  
1103 XXX-XXX-XXX TSM GLSHC 15-NR Active -----  
1104 XXX-XXX-XXX TSM GLSHC 15-NR Active -----  
1105 XXX-XXX-XXX LI MDSO S57ML 15-NR Active -----  
1111 XXX-XXX-XXX I PSM I PSHC 15-NR Active -----  
1113 XXX-XXX-XXX ESMCAP OAMHC 15-NR Active -----  
1114 ----------- ESTOM ------- 15-NR Active -----  
1115 ----------- ESMCAP OAMHC 15-NR Standby -----  
1116 ----------- ESMCAP OAMHC 15-NR Active -----  
1117 ----------- ESMOAL ------- 15-NR Active -----  
1201 XXX-XXX-XXX LI MDSO S57ML 15-NR Active -----  
1202 XXX-XXX-XXX LI MDSO S57ML 15-NR Active -----  
1203 XXX-XXX-XXX DCM I PLHC 15-NR Active -----  
1204 XXX-XXX-XXX DCM I PLHC 15-NR Active -----  
1211 XXX-XXX-XXX DCM I PGHC 15-NR Active -----  
1218 XXX-XXX-XXX TSM GLSHC 15-NR Active -----  
Command Completed. |
| 44   | Inhibit the standby MASP. |
|      | `inh-card: loc=XXXX`  
(Where `YYYY` is location of standby MASP) |
| 45   | Response to the command is displayed. |
|      | `eaglestyp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
Card has been inhibited. |
|      | `eaglestyp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
Command Completed. |
| 46   | Replace the standby E5-MASP with the E5-MASP removed in step 5. |
|      | Slide the MASP H/S switch (SW3) on the standby MASP up to the unlocked position (Wait for all drive LEDs to transition to a steady blue). |
|      | Remove the standby E5-MASP card. |
|      | Insert the spare E5-MASP card. |
|      | Slide the MASP H/S switch (SW3) on the new standby MASP down to the locked position (Wait for the MASP H/S LED to transition from blinking blue to off and the MASP to come up in standby mode). |

Note: UAMs are generated during this step. An audible alarm is generated.  
Wait for the new standby E5-MASP to come up in standby mode and system returns to duplex mode.
**Procedure 29: Full Fallback using Spare E5-MASP**

<table>
<thead>
<tr>
<th>Step</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
<td>Insert the source-release media into the system.  &lt;br&gt; Insert an USB drive in the standby E5-MCAPs.  &lt;br&gt; Once inserted, allow time for the source-release RMD to be detected by the system.</td>
</tr>
<tr>
<td>48</td>
<td>Repeat steps 23 - 41.  &lt;br&gt; After completing Step 41 the second time, continue to Step 49.</td>
</tr>
<tr>
<td>49</td>
<td>If steps 18 &amp; 19 were executed, issue the command to turn the measurements collection on.  &lt;br&gt; <code>chg meas: collect=on</code></td>
</tr>
<tr>
<td>50</td>
<td>Response to change measurement command is displayed.  &lt;br&gt; <code>eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y</code>  &lt;br&gt; <code>chg-meas: collect=on</code>  &lt;br&gt; Command entered at terminal #10.  &lt;br&gt; <code>eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y</code>  &lt;br&gt; <code>CHG-MEAS: MASP A - COMPLTD</code></td>
</tr>
<tr>
<td>51</td>
<td>Execute Procedure 28.</td>
</tr>
<tr>
<td>52</td>
<td>If this completes the recovery as directed by <a href="https://support.oracle.com">My Oracle Support</a>, verify the system with the EAGLE health check [1]. Otherwise continue with Recovery Procedure C.  &lt;br&gt; If failure occurred prior to entering Phase 3, recovery is complete.</td>
</tr>
</tbody>
</table>
Procedure 30: Full Fallback using Fixed Disk as OAM conversion workspace – Case 1

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Only perform this procedure if directed by My Oracle Support.</td>
</tr>
<tr>
<td>2</td>
<td>If present, remove the target-release media from the system.</td>
</tr>
<tr>
<td>3</td>
<td>Issue the command to initialize both MASP cards. <code>init-card: appl=0am</code></td>
</tr>
<tr>
<td>4</td>
<td>Response to initialize command is displayed.</td>
</tr>
<tr>
<td></td>
<td>Ensure that the release shown in the banner is the source release after the MASP becomes active again.</td>
</tr>
<tr>
<td>5</td>
<td>Execute Procedure 28.</td>
</tr>
</tbody>
</table>

Perform the recovery procedure if directed to do so by My Oracle Support when failure occurs in Procedure 6 through Procedure 8, Step 1. Note, this procedure is done in lieu of Procedure 18 for the case where a removable disk was NOT used as the workspace for the OAM conversion.

**NOTE:** If the source release is 46.5 or prior, perform this procedure only when the MASPs are running the BLMCAP flash image. Otherwise Procedures 23 - 27 must be performed before this procedure.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

When directed to by My Oracle Support, execute this procedure:
If failure occurred between Procedure 6 and Procedure 8, Step 1, Table 18, Item E.
### Procedure 31: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

**S T E P #**

Perform the recovery procedure if directed to do so by [My Oracle Support](https://support.oracle.com) when failure occurs in Procedure 8, Step 1, Item F through Item I.

This procedure makes the partition with the source GPLs active on the Standby TDM.

**NOTE:** If the source release is 46.5 or prior, perform this procedure only when the MASPs are running the BLMCAP flash image. Otherwise Procedures 23 - 27 must be performed before this procedure.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT [My Oracle Support](https://support.oracle.com) AND ASK FOR UPGRADE ASSISTANCE.**

When directed to by [My Oracle Support](https://support.oracle.com), execute this procedure:

If failure occurred between Procedure 8, Step 1, Table 18, Item F and Procedure 8, Step 1, Table 18, Item I.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Remove USB drive from system if present.</td>
</tr>
<tr>
<td>2</td>
<td>Issue the command to display database status during upgrades.</td>
</tr>
<tr>
<td>3</td>
<td>Response to the command is displayed. Look at the status field and determine the loc of the TDM marked “UPG 2”.</td>
</tr>
<tr>
<td>4</td>
<td>If the TDM marked in “UPG 2” is the active MASP continue. Otherwise go to step 9.</td>
</tr>
</tbody>
</table>

```sql
act-upgrade: action=dbstatus
```

```sql
eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y Upg Phase X ; DATABASE STATUS: >> NOT OK (DMS) <<
```

<table>
<thead>
<tr>
<th>TDM 1114 (STDBY)</th>
<th>TDM 1116 (ACTV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C LEVEL</td>
<td>TiME LAST BACKUP</td>
</tr>
<tr>
<td>FD BKUP</td>
<td>Y</td>
</tr>
<tr>
<td>FD CRNT</td>
<td>Y</td>
</tr>
<tr>
<td>MCAP 1113</td>
<td>-</td>
</tr>
<tr>
<td>MCAP 1115</td>
<td>-</td>
</tr>
</tbody>
</table>

| RD BKUP | - | - | - | - |
| USB BKP | - | - | - | - |

<table>
<thead>
<tr>
<th>CARD/APPL</th>
<th>LOC</th>
<th>C</th>
<th>T</th>
<th>LEVEL</th>
<th>TiME LAST UPDATE</th>
<th>VERSI ON</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAM RMV</td>
<td>1113</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>TDM CRNT</td>
<td>1114</td>
<td>Y</td>
<td>N</td>
<td>nnnnnn</td>
<td>YY-MM-DD hh:mm:ss</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>UPG 2</td>
</tr>
<tr>
<td>TDM BKUP</td>
<td>1114</td>
<td>Y</td>
<td>-</td>
<td>nnnnnn</td>
<td>YY-MM-DD hh:mm:ss</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>UPG 2</td>
</tr>
<tr>
<td>OAM RMV</td>
<td>1115</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>OAM USB</td>
<td>1115</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>TDM CRNT</td>
<td>1116</td>
<td>Y</td>
<td>N</td>
<td>nnnnnn</td>
<td>YY-MM-DD hh:mm:ss</td>
<td>XXX-XXX-XXX</td>
<td>NORMAL</td>
</tr>
<tr>
<td>TDM BKUP</td>
<td>1116</td>
<td>Y</td>
<td>-</td>
<td>nnnnnn</td>
<td>YY-MM-DD hh:mm:ss</td>
<td>XXX-XXX-XXX</td>
<td>NORMAL</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INACTI VE</th>
<th>PARTI TI ON GROUP</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARDY APPL</td>
<td>LOC</td>
</tr>
<tr>
<td>-----------</td>
<td>-----</td>
</tr>
<tr>
<td>TDM CRNT</td>
<td>1114</td>
</tr>
<tr>
<td>TDM BKUP</td>
<td>1114</td>
</tr>
<tr>
<td>TDM CRNT</td>
<td>1116</td>
</tr>
<tr>
<td>TDM BKUP</td>
<td>1116</td>
</tr>
</tbody>
</table>
### Procedure 31: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Command/Description</th>
</tr>
</thead>
</table>
| 5    | Issue the command to init active location. | `init -card: loc=YYYY`  
(Where YYYY is location of active MASP) |
| 6    | Response to initialize command is displayed. | `eaglestp YY-MM-DD hh:mm:ss PPP xx.x.x.x-YY.y.y`  
* 0261.0013 * CARD XXXX OAMHC  
Card is isolated from the system  
ASSY SN: xxxxxxxx  
** `eaglestp YY-MM-DD hh:mm:ss PPP xx.x.x.x-YY.y.y`  
5038.0014 CARD XXXX OAMHC  
Card is present  
ASSY SN: xxxxxxxx  
** |
| 7    | Issue the command to log back in to the system. | `login:uid=XXXXXX`  
(Where XXXXXX is a valid login ID) |
| 8    | Response to login command is displayed.  
Ignore any login failure message. | `eaglestp YY-MM-DD hh:mm:ss PPP xx.x.x.x-YY.y.y`  
User logged in on terminal 10.  
? Login failures since last successful LOG N  
Last successful LOG N was on port ? on ??-??-?? @ ??::??::?? |
| 9    | Issue the command to display active/inactive disk partitions. | `snd-msg: ds=1: da=h'5d: f=h'47: loc=YYYY`  
(Where YYYY is location of active MASP) |
| 10   | Response to command.  
Note: Look for the command response on a terminal with all output display groups set to yes (printer/kst terminal port specified in, Procedure 1, Step 6) | `eaglestp YY-MM-DD hh:mm:ss PPP xx.x.x.x-YY.y.y Upgrade Phase x`  
System Buffer sent has following attributes:  
Msg Length = H'0010  
Dest Card = H'00fb  
Orig Subsys = H'0001  
Dest Subsys = H'0001  
Orig Appl ID = H'0030  
Dest Appl ID = H'005d  
Func ID = H'0047  
Bus/Ret/Sut = H'0002  
Violation Ind = H'0000  
User Message sent to location YYYY.  
** `eaglestp YY-MM-DD hh:mm:ss PPP xx.x.x.x-YY.y.y Upgrade Phase x`  
ACTIVE OAM Partition Grp Info:  
num_group = 2  
active_partitions[] = 0, 1  
inactive_partitions[] = 2, 3  
** `eaglestp YY-MM-DD hh:mm:ss PPP xx.x.x.x-YY.y.y Upgrade Phase x`  
STANDBY OAM Partition Grp Info:  
num_group = 2  
active_partitions[] = 2, 3  
inactive_partitions[] = 0, 1  
** |
| 11   | Issue the command to swap active/inactive disk partitions. | `snd-msg: ds=1: da=h'5d: f=h'48: loc=YYYY`  
(Where YYYY is location of active MASP) |
### Procedure 31: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Details</th>
</tr>
</thead>
</table>
| 12   | **Response to command.** Note: Look for the command response on a terminal with all output display groups set to yes (printer/ksr terminal port specified in Procedure 1, Step 6).  
  Compare the values for the active partitions and inactive partitions with those in **step 10.** For the STANDBY OAM, the values for the active partitions shown should equal those for the inactive partitions shown in **step 10,** and vice-versa. For the ACTIVE OAM, both sets of values should be identical. |
| 13   | **Inhibit the standby MASP.**  
  *(Where XXXX is the location for the Standby MASP.)* |
| 14   | **Response to the inhibit command is displayed.**  
  **Verify UAM 514 is displayed.** |
| 15   | **Issue the command to initialize the flash memory on the standby MASP.** *(Where XXXX is the location for the Standby MASP.)* |
| 16   | **Response to flash initialization is shown.**  
  **Verify UAM 0004 is displayed.** |
| 17   | **Issue the command to activate the flash on the standby MASP.** *(Where XXXX is the location for the Standby MASP.)* |
| 18   | **Response to the activate command is displayed.** |

---

16 The approved flash GPL is the source version.
### Procedure 31: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 19   | Issue the command to allow card.  
- `aw card:loc=XXXX`  
(Where `XXXX` is the location for the Standby MASP.) |
| 20   | Response to the command is displayed.  
- `eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
- Card has been allowed.  
- `eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
- Command Completed. |
| 21   | Determine the status of the GPLs running on the card location.  
- `rept stat gpl:loc=XXXX`  
(Where `XXXX` is the location for the Standby MASP.) |
| 22   | Response from the status command is displayed.  
- GPL Auditing ON  
|   | OAMHC 1115  
|   | CARD 134-074-000  
|   | RUNNING APPROVED TRIAL  
|   | BLMCAP 134-070-000  
|   | Command Completed. |
| 23   | If the active MASP is not running the upgrade source release GPL continue. Otherwise go to step 37.  
- `init card:loc=XXXX`  
(Where `XXXX` is location of active MASP) |
| 24   | Response to initialize command is displayed.  
- `eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y`  
- GPL Auditing ON  
|   | OAMHC 1115  
|   | CARD 134-074-000  
|   | RUNNING APPROVED TRIAL  
|   | BLMCAP 134-070-000  
|   | Command Completed. |
| 25   | Issue the command to log back in to the system.  
- `login:uid=XXXXXX`  
(Where `XXXXXX` is a valid login ID) |
| 26   | Response to login command is displayed.  
- `eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y`  
- User logged in on terminal 10.  
|   | ? Log in failures since last successful LOG N  
|   | Last successful LOG N was on port ? on ??-??-??? at ???:???:?? |
| 27   | Inhibit the standby MASP.  
- `inh card:loc=XXXX`  
(Where `XXXX` is the location for the Standby MASP.) |
| 28   | Response to the inhibit command is displayed  
- `eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y`  
- Card is inhibited.  
- `eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y`  
- Upg Phase x  
|   | ** 5045.0514 ** CARD XXXX OAMHC  
|   | Standby MASP is inhibited  
|   | Note: Wait for the card to boot and return to the IMT bus. |
| 29   | Issue the command to initialize the flash memory on the standby MASP.  
- `init flash:code=appr:loc=XXXX`  
(Where `XXXX` is the location for the Standby MASP.) |
### Procedure 31: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command/Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Response to flash initialization is shown. Verify UAM 0004 is displayed.</td>
<td>eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y&lt;br&gt;FLASH Memory Downoad for card xxxx started.&lt;br&gt;...&lt;br&gt;Card is running non-activated GPL</td>
</tr>
<tr>
<td>31</td>
<td>Issue the command to activate the flash on the standby MASP.</td>
<td>act-flash:loc=XXXX&lt;br&gt;(Where XXX is the location for the Standby MASP.)</td>
</tr>
<tr>
<td>32</td>
<td>Response to the activate command is displayed.</td>
<td>eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y&lt;br&gt;Command entered at terminal #10.&lt;br&gt;...&lt;br&gt;FLASH Memory Activation for card XXX Completed.</td>
</tr>
<tr>
<td>33</td>
<td>Issue the command to allow card.</td>
<td>alw-card:loc=XXXX&lt;br&gt;(Where XXX is the location for the Standby MASP.)</td>
</tr>
<tr>
<td>34</td>
<td>Response to the command is displayed.</td>
<td>eaglestp YY-MM DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y&lt;br&gt;Card has been allowed.&lt;br&gt;...&lt;br&gt;FLASH Memory Activation for card XXX Completed.</td>
</tr>
<tr>
<td>35</td>
<td>Determine the status of the GPLs running on the card location.</td>
<td>rept-stat-gpl:loc=XXXX&lt;br&gt;(Where XXX is the location for the Standby MASP.)</td>
</tr>
<tr>
<td>36</td>
<td>Response from the status command is displayed.</td>
<td>eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y&lt;br&gt;GPL Auditing ON&lt;br&gt;...&lt;br&gt;Card has been allowed.</td>
</tr>
<tr>
<td>37</td>
<td>ExecuteProcedure 28.</td>
<td></td>
</tr>
</tbody>
</table>
### Procedure 32: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

Perform this recovery procedure if directed to do so by My Oracle Support when failure occurred between Procedure 8, Step 1, Table 18, Item J and Procedure 14 [End of Session 1]. This procedure makes the partition with the source GPLs active on both TDMs.

**NOTE:** If the database level in the target release is different from the last database level of the source release, this procedure CANNOT BE USED; contact My Oracle Support.

**NOTE:** If the source release is 46.5 or prior, perform this procedure only when the MASPs are running the BLMCAP flash image. Otherwise Procedures 23 - 27 must be performed before this procedure.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

When directed to by My Oracle Support, execute this procedure:

If failure occurred between Procedure 8, Step 1, Table 18, Item J and Procedure 10 [End of Session 1].

<table>
<thead>
<tr>
<th>Step</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*** ATTENTION *** If this is an incremental upgrade (i.e. the SOURCE release equals the TARGET release, go to Procedure 4, Step 1).</td>
</tr>
<tr>
<td></td>
<td>Complete all steps from Procedure 4 to the end of Session 1 (Procedure 10). Note: When executing Procedure 4 through Procedure 10 in the recovery scenario, the terminology of source and target are reversed. Target release becomes the software load that is being recovered to (45.0.0) and the source release becomes the software load that was upgraded to (45.0.1).</td>
</tr>
<tr>
<td>2</td>
<td>Remove USB drive from system if present.</td>
</tr>
<tr>
<td></td>
<td><strong>Response to command.</strong> Note: Look for the command response on a terminal with all output display groups set to yes (printer/ksr terminal port specified in Procedure 1, Step 6)</td>
</tr>
<tr>
<td>3</td>
<td>Issue the command to display active/inactive disk partitions.</td>
</tr>
<tr>
<td></td>
<td><strong>send-msg: ds=1: da=h'5d: f=h'47: l oc=YYYY</strong> (Where YYYY is location of active MASP)</td>
</tr>
<tr>
<td>4</td>
<td><strong>Response to command.</strong></td>
</tr>
<tr>
<td></td>
<td>Note: System Buffer sent has following attributes:</td>
</tr>
<tr>
<td></td>
<td>- Msg Length = H'0010</td>
</tr>
<tr>
<td></td>
<td>- Dest Card = H'00f4</td>
</tr>
<tr>
<td></td>
<td>- Orig Subsys = H'0001</td>
</tr>
<tr>
<td></td>
<td>- Dest Subsys = H'0000</td>
</tr>
<tr>
<td></td>
<td>- Orig Appl ID = H'0030</td>
</tr>
<tr>
<td></td>
<td>- Dest Appl ID = H'0047</td>
</tr>
<tr>
<td></td>
<td>- Func ID = H'0047</td>
</tr>
<tr>
<td></td>
<td>- Bus/Ret/Sut = H'0002</td>
</tr>
<tr>
<td></td>
<td>- Violation Ind = H'0000</td>
</tr>
<tr>
<td></td>
<td>- User Message sent to location XXXX.</td>
</tr>
<tr>
<td></td>
<td><strong>eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-x-YY.y.y Upgrade Phase</strong></td>
</tr>
<tr>
<td></td>
<td>- System Buffer sent has following attributes:</td>
</tr>
<tr>
<td></td>
<td>- Msg Length = H'0010</td>
</tr>
<tr>
<td></td>
<td>- Dest Card = H'00f4</td>
</tr>
<tr>
<td></td>
<td>- Orig Subsys = H'0001</td>
</tr>
<tr>
<td></td>
<td>- Dest Subsys = H'0000</td>
</tr>
<tr>
<td></td>
<td>- Orig Appl ID = H'0030</td>
</tr>
<tr>
<td></td>
<td>- Dest Appl ID = H'0047</td>
</tr>
<tr>
<td></td>
<td>- Func ID = H'0047</td>
</tr>
<tr>
<td></td>
<td>- Bus/Ret/Sut = H'0002</td>
</tr>
<tr>
<td></td>
<td>- Violation Ind = H'0000</td>
</tr>
<tr>
<td></td>
<td>- User Message sent to location XXXX.</td>
</tr>
<tr>
<td></td>
<td><strong>eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-x-YY.y.y Upgrade Phase</strong></td>
</tr>
<tr>
<td></td>
<td>- ACTIVE OAM Partition Grp Info:</td>
</tr>
<tr>
<td></td>
<td>- num group = 2</td>
</tr>
<tr>
<td></td>
<td>- num partitions per group = 2</td>
</tr>
<tr>
<td></td>
<td>- active_partitions[] = 2</td>
</tr>
<tr>
<td></td>
<td>- inactive_partitions[] = 0</td>
</tr>
<tr>
<td></td>
<td>;</td>
</tr>
<tr>
<td></td>
<td><strong>eaglestp YY-MM-DD hh:mm:ss EST PPP xx.x.x.x-x-YY.y.y Upgrade Phase</strong></td>
</tr>
<tr>
<td></td>
<td>- STANDBY OAM Partition Grp Info:</td>
</tr>
<tr>
<td></td>
<td>- num group = 2</td>
</tr>
<tr>
<td></td>
<td>- num partitions per group = 2</td>
</tr>
<tr>
<td></td>
<td>- active_partitions[] = 2</td>
</tr>
<tr>
<td></td>
<td>- inactive_partitions[] = 0</td>
</tr>
<tr>
<td>5</td>
<td>Issue the command to swap active/inactive disk partitions.</td>
</tr>
<tr>
<td></td>
<td><strong>send-msg: ds=1: da=h'5d: f=h'48: l oc=YYYY</strong> (Where YYYY is location of active MASP)</td>
</tr>
</tbody>
</table>
**Procedure 32: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 6    | Response to command.  
  Note: Look for the command response on a terminal with all output display groups set to yes (printer/ksr terminal port specified in Procedure 1, Step 6)  
  Compare the values for the active partitions and inactive partitions with those in step 4. For the STANDBY OAM, the values for the active partitions shown should equal those for the inactive partitions shown in step 4, and vice-versa. For the ACTIVE OAM, both sets of values should be identical.  
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  System Buffer sent has following attributes:  
  Msg Length = H'0010  
  Dest Card = H'00f8  
  Orig Subsys = H'0001  
  Orig Appl ID = H'0030  
  Dest Subsys = H'0001  
  Dest Appl ID = H'005d  
  Func ID = H'0048  
  Bus/Ret/Sut = H'0002  
  Violation Ind = H'0000  
  User Message sent to location XXXX.  
  ```
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  Partition switch PASSED  
  ```
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  ACTIVE OAM Partition Grp Info:  
  num_group = 2  
  num_partitions_per_group = 2  
  active_partitions[] = 2 3  
  inactive_partitions[] = 0 1  
  ```
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  STANDBY OAM Partition Grp Info:  
  num_group = 2  
  num_partitions_per_group = 2  
  active_partitions[] = 0 1  
  inactive_partitions[] = 2 3  
  ```
| 7    | Inhibit the standby MASP.  
  ```
  inh-card:loc=XXXX  
  ```  
  (Where XXXX is the location for the Standby MASP.)
| 8    | Response to the inhibit command is displayed.  
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  Card is inhibited.  
  ```
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  Upg Phase x ** 5045.0514 ** CARD XXXX OAMHC  
  Standby MASP is inhibited  
  ```
  Note: Wait for the card to boot and return to the IMT bus.
| 9    | Issue the command to initialize the flash memory on the standby MASP.  
  ```
  init-flash:code=trial:loc=XXXX  
  ```  
  (Where XXXX is the location for the Standby MASP.)
| 10   | Response to flash initialization is shown.  
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  FLASH Memory Download for card xxxx started.  
  ```
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  FLASH Memory Download for card xxxx completed.  
  ```
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  * 8003.0004 * GPL SYSTEM BLHMAP  
  Card is running non-activated GPL  
  ```
  Note: Wait for card to boot and return to the IMT bus.
| 11   | Issue the command to activate the flash on the standby MASP.  
  ```
  act-flash:loc=XXXX  
  ```  
  (Where XXXX is the location for the Standby MASP.)
| 12   | Response to the activate command is displayed.  
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  Command entered at terminal #10.  
  ```
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  FLASH Memory Activation for card xxxx Started.  
  ```
  ```
eaglest  YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
  FLASH Activation for card xxxx Completed.  
  ```
**Procedure 32: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3**

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Issue the command to allow card.</td>
</tr>
<tr>
<td></td>
<td><code>alw card: loc=XXXX</code></td>
</tr>
<tr>
<td></td>
<td>(Where XXXX is the location for the Standby MASP.)</td>
</tr>
<tr>
<td>14</td>
<td>Response to the command is displayed.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>Card has been allowed.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>Command Completed.</td>
</tr>
<tr>
<td>15</td>
<td>Determine the status of the GPLs running on the card location.</td>
</tr>
<tr>
<td></td>
<td><code>rept - stat - gpl: loc=XXXX</code></td>
</tr>
<tr>
<td></td>
<td>(Where XXXX is the location for the Standby MASP.)</td>
</tr>
<tr>
<td>16</td>
<td>Response from the status command is displayed.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>GPL Auditing ON`</td>
</tr>
<tr>
<td></td>
<td><code>GPL      CARD     RUNNING     APPROVED     TRIAL</code></td>
</tr>
<tr>
<td></td>
<td>OAMHC69   XXXX      XXX-XXX-XXX        -----------   -----------`</td>
</tr>
<tr>
<td></td>
<td>BLDC32     XXX-XXX-XXX        YYYY-YY-YY      XXX-XXX-XXX`</td>
</tr>
<tr>
<td></td>
<td>Command Completed.</td>
</tr>
<tr>
<td>17</td>
<td>Issue the command to init active location.</td>
</tr>
<tr>
<td></td>
<td><code>init - card: loc=YYYY</code></td>
</tr>
<tr>
<td></td>
<td>(Where YYYY is location of active MASP)</td>
</tr>
<tr>
<td>18</td>
<td>Response to initialize command is displayed.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>* 0261.0013 * CARD XXXX OAMHC Card is isolated from the system</td>
</tr>
<tr>
<td></td>
<td>ASSY SN: xxxxxxxx`</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>5038.0014 CARD XXXX OAMHC Card is present</td>
</tr>
<tr>
<td></td>
<td>ASSY SN: xxxxxxxx`</td>
</tr>
<tr>
<td>19</td>
<td>Issue the command to log back in to the system.</td>
</tr>
<tr>
<td></td>
<td><code>login: uid=XXXXXX</code></td>
</tr>
<tr>
<td></td>
<td>(Where XXXXXXX is a valid login ID)</td>
</tr>
<tr>
<td>20</td>
<td>Response to login command is displayed.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td>User logged in on terminal nn.</td>
</tr>
<tr>
<td></td>
<td>? Log in failures since last successful LOG IN</td>
</tr>
<tr>
<td></td>
<td>Last successful LOG IN was on port ? on ??-??-?? @ ?:?:??`</td>
</tr>
<tr>
<td>21</td>
<td>Issue the command to display active/inactive disk partitions.</td>
</tr>
<tr>
<td></td>
<td><code>send - msg: ds=1: da=h'5d: f=h'47: loc=XXXXX</code></td>
</tr>
<tr>
<td></td>
<td>(Where XXXXXX is location of newly active MASP)</td>
</tr>
<tr>
<td>22</td>
<td>Response to command.</td>
</tr>
<tr>
<td></td>
<td>Note: Look for the command response on a terminal with all output display groups set to yes (printer/terminal port specified in Procedure 1, Step 6)</td>
</tr>
</tbody>
</table>
|      | If the standby partition information is not displayed, wait for the standby MASP to return to service and repeat step 21.
Procedure 32: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

23. Issue the command to swap active/inactive disk partitions.

   \texttt{send\_msg: ds=1; da=H'5d; f=H'48; l oc=XXXX}

   (Where XXXX is the location of active MASP)

24. Response to command.

   \texttt{eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.yy.y}
   System Buffer sent has following attributes:
   \begin{itemize}
   \item Msg Length = H'0010
   \item Orig Subsys = H'0007
   \item Dest Subsys = H'0001
   \item Orig Appl ID = H'0030
   \item Dest Appl ID = H'005d
   \item Func ID = H'0048
   \item Violation Ind = H'0000
   \end{itemize}

   User Message sent to location YYYY.
   
   \texttt{eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.yy.y}
   Partition switch PASSED
   
   \texttt{eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x-YY.yy.y}
   ACTIVE OAM Partition Grp Info:
   \begin{itemize}
   \item num group = 2
   \item num partitions per group = 2
   \item active partitions[] = 0 \ 1
   \item inactive partitions[] = 2 \ 3
   \end{itemize}

   Note: Look for the command response on a terminal with all output display groups set to yes (printer/ksr terminal port specified in Procedure 1, Step 6)

   Compare the values for the active_partitions and inactive_partitions with those in step 22. For the STANDBY OAM, the values for the active_partitions shown should equal those for the inactive_partitions shown in step 22, and vice-versa.

   For the ACTIVE OAM, both sets of values should be identical.

25. Inhibit the standby MASP.

   \texttt{inh\_card: l oc=YYYY}

   (Where YYYY is the location for the Standby MASP.)

26. Response to the inhibit command is displayed.

   \texttt{eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y}
   Card is inhibited.

   \texttt{eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YYYY Upg Phase x}
   ** 5045. 0514 ** GPL SYSTEM BLMCAP Standby  MASP is inhibited

   Note: Wait for the card to boot and return to the IMT bus.

27. Issue the command to initialize the flash memory on the standby MASP.

   \texttt{init\_flash: code=aprpr: l oc=YYYY}

   (Where YYYY is the location for the Standby MASP.)

28. Response to flash initialization is shown.

   \texttt{eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y}
   FLASH Memory Download for card xxxx started.

   \texttt{eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y}
   FLASH Memory Download for card xxxx completed.

   \texttt{eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y}
   * 8003. 0004 * GPL SYSTEM BLMCAP Card is running non-activated GPL

   Note: Wait for card to boot and return to the IMT bus.

29. Issue the command to activate the flash on the standby MASP.

   \texttt{act\_flash: l oc=YYYY}

   (Where YYYY is the location for the Standby MASP.)

30. Response to the activate command is displayed.

   \texttt{eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y}
   FLASH Memory Activation for card XXXX Started.

   \texttt{eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y}
   FLASH Activation for card XXXX Completed.

   Note: Wait for card to boot and return to the IMT bus.
Procedure 32: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

31. Issue the command to allow card.
   \texttt{alw card: l oc=YYYY}
   (Where YYYY is the location for the Standby MASP.)

32. Response to the command is displayed.
   \texttt{eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y}
   Card has been allowed.
   ;
   \texttt{eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y}
   Command Completed.
   ;

33. Determine the status of the GPLs running on the card location.
   \texttt{rept - stat - gpl: l oc=XXXX}
   (Where XXXX is the location for the Standby MASP.)

34. Response from the retrieve command is displayed.
   \texttt{eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y}
   GPL Auditing ON
   GPL OAMHC69 CARD XXXX RUNNING APPROVED TRIAL
   BLDC32 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed.

### 6.5 Recovery Procedure C

Procedure 33: Fall Back Procedure for Network Cards

This procedure captures the card and link status data required when performing a manual fallback of the network cards back to the source-release GPLs.

<table>
<thead>
<tr>
<th>Step</th>
<th>Command/Action Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the command to report card status.</td>
</tr>
<tr>
<td>2</td>
<td>Response to the card status command is displayed. Record all network card applications present for future reference within the procedure.</td>
</tr>
<tr>
<td>3</td>
<td>Issue the card status command.</td>
</tr>
<tr>
<td>4</td>
<td>Response to the card status command is displayed. If any MCPM cards are displayed, continue to next step. Otherwise, go to Step 7.</td>
</tr>
<tr>
<td>5</td>
<td>Issue the send message command. Repeat for each MCPM card.</td>
</tr>
<tr>
<td>6</td>
<td>Response to the send message command is displayed.</td>
</tr>
</tbody>
</table>

**NOTE:** This command causes the MCPM card to boot with an OBIT indicating a “USER INITIATED COLD RESTART”. All Measurements data not sent to an FTP server is lost. Waiting for the next scheduled Measurement FTP transfer and use of the rept-ftp-meas command to save desired measurements can minimize these losses before proceeding with this step.

---

```
rept -stat-card

<table>
<thead>
<tr>
<th>CARD</th>
<th>VERSION</th>
<th>TYPE</th>
<th>GPL</th>
<th>PST</th>
<th>SST</th>
<th>AST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1101</td>
<td>XXX-XXX-XXX</td>
<td>DSM</td>
<td>SCCPHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1102</td>
<td>XXX-XXX-XXX</td>
<td>DCM</td>
<td>I PLHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1103</td>
<td>XXX-XXX-XXX</td>
<td>TSM</td>
<td>GLSHC</td>
<td>IS-NR</td>
<td>Fault</td>
<td>-----</td>
</tr>
<tr>
<td>1105</td>
<td>XXX-XXX-XXX</td>
<td>DCM</td>
<td>I PGHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1109</td>
<td>XXX-XXX-XXX</td>
<td>H PR</td>
<td>HI PR</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1110</td>
<td>XXX-XXX-XXX</td>
<td>H PR</td>
<td>HI PR</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1111</td>
<td>XXX-XXX-XXX</td>
<td>MCPM</td>
<td>MCPHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1113</td>
<td>XXX-XXX-XXX</td>
<td>ESMCAP</td>
<td>OAMHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1114</td>
<td></td>
<td>ESTDM</td>
<td>----------</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1115</td>
<td>XXX-XXX-XXX</td>
<td>ESMCAP</td>
<td>OAMHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1116</td>
<td></td>
<td>ESTDM</td>
<td>----------</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1117</td>
<td></td>
<td>ESMdal</td>
<td>----------</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1201</td>
<td>XXX-XXX-XXX</td>
<td>LI M1</td>
<td>SS7HC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1202</td>
<td>XXX-XXX-XXX</td>
<td>LI M1</td>
<td>SS7HC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1209</td>
<td>XXX-XXX-XXX</td>
<td>H PR2</td>
<td>HI PR2</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1210</td>
<td>XXX-XXX-XXX</td>
<td>H PR2</td>
<td>HI PR2</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1211</td>
<td>XXX-XXX-XXX</td>
<td>DCM</td>
<td>I PGHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1217</td>
<td>XXX-XXX-XXX</td>
<td>TSM</td>
<td>GLSHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1218</td>
<td>XXX-XXX-XXX</td>
<td>IPSM</td>
<td>IPSHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
</tbody>
</table>

Command Completed.
```

```
rept -stat-card: appl=mcp

<table>
<thead>
<tr>
<th>CARD</th>
<th>VERSION</th>
<th>TYPE</th>
<th>GPL</th>
<th>PST</th>
<th>SST</th>
<th>AST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1111</td>
<td>134-064-000</td>
<td>MCPM</td>
<td>MCPHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1112</td>
<td>134-064-000</td>
<td>MCPM</td>
<td>MCPHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
</tbody>
</table>

Command Completed.
```

```
send-msg: ds=8; da=h'17; f=22; loc=XXXX
(Where XXXX is location of the MCPM cards display in previous step.)

```

System Buffer sent has following attributes:

- Msg Length = H'0010
- Dest Card = H'00F7
- Orig Subsys = H'0001
- Orig Appl ID = H'004d
- Func ID = H'0016
- Violation Ind = H'0000
- User Message sent to location XXXX.

Command Completed.
```
**Procedure 33: Fall Back Procedure for Network Cards**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Issue the upgrade activation command. If the threshold type is set to SET in Procedure 7, Step 4 and the source release is 46.0 or higher, issue the following command: <strong>ACT- UPGRADE: ACTI ON=CONVERTSTTP: SRC=F1 XED</strong>. Otherwise, issue the following command: <strong>ACT- UPGRADE: ACTI ON=CONVERTSTTP: SRC=F1 XED: THRES=75</strong>. (If another thres value is to be used see recommendation #5 in section 1.6).</td>
</tr>
<tr>
<td>8</td>
<td>Response to the upgrade command is displayed. Completion notice of successful upgrade. If upgrade does not complete successfully, see recommendation #7 in section 1.6.</td>
</tr>
<tr>
<td>9</td>
<td>Go to Procedure 8, Step 7. Complete all steps from Procedure 8, Step 7 to the end of Procedure 8. Then perform Procedure 14 to complete the roll-back.</td>
</tr>
</tbody>
</table>
**Procedure 34: Restoring Flash-Based Service Cards**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1    | Issue the command to display the GPL status.  
**rept-stat-gpl:gpl=YYYY**  
(Where **YYYY** is one of the Flash-Based service card types listed above.) |
| 2    | Response to the command is displayed.  
Record the CARD locations for all cards that have alarms:  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
**rept-stat-gpl:gpl=YYYY**  
Command entered at terminal #10.  
;  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
GPL Auditing ON  
|  | APPL | CARD | RUNNING | APPROVED | TRIAL |
|  | YYYYY | 1101 | XXX-XXX-XXX ALM | XXX-XXX-XXX | XXX-XXX-XXX |
|  | YYYYY | 1103 | XXX-XXX-XXX ALM | XXX-XXX-XXX | XXX-XXX-XXX |
|  | Command Completed.  
| 3    | Issue the command to inhibit the card if the card is provisioned.  
**inh-card:loc=XXXX**  
(Where **XXXX** is the card location of the cards determined in Step 2) |
| 4    | Response to the inhibit command is displayed.  
Wait for the “Command completed” response before proceeding.  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
Card has been inhibited.  
;  
|  | **eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
Command Completed.  
| 5    | Issue the command to initialize the flash memory.  
**flash-card:code=appr:force=yes:loc=XXXX**  
NOTE: this command causes the card to boot. |
| 6    | Response to the flash card command is displayed.  
Wait for command complete to indicate that the card is finished loading before proceeding.  
**eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
Command entered at terminal #10.  
;  
|  | **eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y**  
Command Completed.  
| 7    | Issue the command to allow the card if the card is provisioned.  
**alw-card:loc=XXXX**  
(Where **XXXX** is the card location of the cards determined in Step 2)  
OR  
**alw-card:loc=XXXX data=persi st**  
(Where **XXXX** is the location of an SCCP card determined in Step 2) |

---

17 Specifying the DATA=PERSIST parameter for SCCP application cards allows for warm restart if possible.
Procedure 34: Restoring Flash-Based Service Cards

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command Details</th>
</tr>
</thead>
</table>
| 8    | Response to the allow command is displayed. Wait for the card to finish loading before proceeding (approximately 30 seconds).             | ```
' response to the allow command is displayed.'

`eagl estp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y
al w card: loc=1201
Command entered at terminal #10.'

`eagl estp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y
Card has been allowed.'

`eagl estp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y
Command Completed.'

<table>
<thead>
<tr>
<th>9</th>
<th>Repeat Steps 3 – 8 for each card in the current group that has an alarm.</th>
<th>Command entered at terminal #10.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Repeat steps 1-9 for each group of cards (VSCCP, ISP, MCP, EROUTE, SCCPHC, IPSHC, ERTHC, and SIPHC)</td>
<td>Command entered at terminal #10.</td>
</tr>
<tr>
<td>11</td>
<td>Issue the command to display the card status.</td>
<td>Command entered at terminal #10.</td>
</tr>
<tr>
<td>12</td>
<td>Response to the command is displayed. Verify that all Flash-Based Service cards are IS-NR and are running the Source-Release GPL versions, as per your reference list of GPLs.</td>
<td>Command entered at terminal #10.</td>
</tr>
<tr>
<td></td>
<td>For any such card that is not IS-NR or running the correct GPL, repeat Steps 3-4.</td>
<td>Command entered at terminal #10.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CARD</th>
<th>VERSI ON</th>
<th>TYPE</th>
<th>GPL</th>
<th>PST</th>
<th>SST</th>
<th>AST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1101</td>
<td>XXX-XXX-XXX</td>
<td>DSM</td>
<td>VSCCP</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1102</td>
<td>XXX-XXX-XXX</td>
<td>DSM</td>
<td>VSCCP</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1103</td>
<td>XXX-XXX-XXX</td>
<td>TSM</td>
<td>GLSFC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1104</td>
<td>XXX-XXX-XXX</td>
<td>TSM</td>
<td>GLSFC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1105</td>
<td>XXX-XXX-XXX</td>
<td>LI MD50</td>
<td>SS7ML</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1109</td>
<td>XXX-XXX-XXX</td>
<td>HI PR</td>
<td>HI PR</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1110</td>
<td>XXX-XXX-XXX</td>
<td>HI PR</td>
<td>HI PR</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1111</td>
<td>XXX-XXX-XXX</td>
<td>LI MT1</td>
<td>SS7HC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1113</td>
<td>XXX-XXX-XXX</td>
<td>ESMCAP</td>
<td>OAMHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1114</td>
<td>ESMODM</td>
<td>ESMODM</td>
<td>OAMHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1115</td>
<td>ESMODM</td>
<td>ESMODM</td>
<td>OAMHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1116</td>
<td>ESMODM</td>
<td>ESMODM</td>
<td>OAMHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1117</td>
<td>ESMODM</td>
<td>ESMODM</td>
<td>OAMHC</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1201</td>
<td>XXX-XXX-XXX</td>
<td>LI MD50</td>
<td>SS7ML</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1202</td>
<td>XXX-XXX-XXX</td>
<td>LI MD50</td>
<td>SS7ML</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1203</td>
<td>XXX-XXX-XXX</td>
<td>LI MD50</td>
<td>SS7ML</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
<tr>
<td>1204</td>
<td>XXX-XXX-XXX</td>
<td>LI MD50</td>
<td>SS7ML</td>
<td>IS-NR</td>
<td>Active</td>
<td>-----</td>
</tr>
</tbody>
</table>

18 If card is MCPM, it may boot with an Obit for Module EMM_MCP.C Class 0001. This is expected behavior and is not service affecting.
**Procedure 35: Restoring Flash-Based Link Cards**

**STEP #**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the command to display the GPL status.</td>
</tr>
<tr>
<td>2</td>
<td>Response to the command is displayed. Record the CARD locations for all cards which have alarms:</td>
</tr>
<tr>
<td>3</td>
<td>Issue command to display provisioned links.</td>
</tr>
<tr>
<td>4</td>
<td>Response displayed. Note which links are IS-NR for this card.</td>
</tr>
<tr>
<td>5</td>
<td>Issue the command to initialize the flash memory.</td>
</tr>
<tr>
<td>6</td>
<td>Response to the flash card command is displayed. Wait for command complete to indicate that the card is finished loading before proceeding.</td>
</tr>
</tbody>
</table>

**Note:** Steps 3 through 8 are to be repeated for EACH Link card in the system.

---

**STEP #**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>rept-stat-gpl:gpl=YYYY</strong> (Where <em>YYYY</em> is one of the Flash-Based Link card types listed above.)</td>
</tr>
<tr>
<td>Command entered at terminal #10.</td>
</tr>
<tr>
<td><strong>rept-stat-card:loc=XXXX</strong> (Where <em>XXXX</em> is a card in alarm from Step 2.)</td>
</tr>
<tr>
<td>Command entered at terminal #10.</td>
</tr>
<tr>
<td><strong>flash-card:code=appr:force=yes:loc=XXXX</strong></td>
</tr>
<tr>
<td>NOTE: this command causes the card to boot.</td>
</tr>
</tbody>
</table>
## Procedure 35: Restoring Flash-Based Link Cards

### Issue command to display provisioned links.

```
rept-stat-card:loc=XXXX
```

### Response displayed.

Verify that the links that were IS-NR in Step 4 are IS-NR now.

### Repeat Steps 3-8 for each card in the group from Step 2 that has an alarm.

### Repeat Steps 1-9 for each Flash-Based Link card group (Refer to 1.3 Software Release Numbering to see list of GPLs.)

### Issue the command to display the GPL status.

```
rept-stat-card
```

### Response to the command is displayed.

Verify that all Flash-Based Link cards are IS-NR and are running the Source-Release GPL versions, as per your reference list of GPLs.

For any card that is not IS-NR or running the correct GPL, repeat Steps 3-8.
Procedure 36: Restoring Mux Cards

This procedure updates each card with the source release GPLs. Mux cards include HIPR, and HIPR2 cards, which run HIPR, and HIPR2 GPLs respectively.

1. Issue the card status command to identify the MUX cards in the system.
   
   ```
   rept-stat-gpl:gpl=YYYY
   ```
   (Where YYYY is one of the Flash-Based Mux card types listed above.)

2. Response to the command is displayed.
   
   Record the CARD locations for all cards in the system:

   ___________________
   ___________________
   ___________________
   ___________________

3. Enter the command to initialize the FLASH on the next Mux card on the current bus.
   
   ```
   init-flash:loc=XXZZ:code=appr
   ```
   (Where XX is a shelf number and, ZZ depends on which bus is being flashed. 09 is bus A; 10 is bus B.)

4. Response to the flash initialization is shown.
   
   Repeat steps 1-4 for each Mux card type on the current bus.

5. NOTE: Steps 1-4 must be performed for all MUX card types on one bus before performing these steps for any MUX card types on the other bus.

6. Enter the command to initialize the current bus.
   
   ```
   init-mux:bus=x19
   ```
   (Where x = A or B, depending on current bus: xx09 is bus A; xx10 is bus B.)

7. Response to the initialization command is displayed.

---

Warning: Do not use the FORCE= parameter. Use of this parameter may result in network outage. Analysis of the alternate bus is required.
### Procedure 36: Restoring Mux Cards

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Issue the command to activate the flash on the next MUX card on the current bus.</td>
</tr>
</tbody>
</table>
|      | `act-fl ash:loc=XXZZ`  
(Where `XX` is a shelf number and, `ZZ` depends on which bus is being flashed. 09 is bus A; 10 is bus B.) |
| 9    | Response to the activate command is displayed.  
`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
act-fl ash:loc=XXZZ  
Command entered at terminal #10.  
;  
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
FLASH Memory Activation for card XXZZ Started.  
;  
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
FLASH Activation for card XXZZ Completed.  
;` |
| 10   | Repeat steps 8-9 for each MUX card on the current bus (A or B.) |
| 11   | Repeat steps 3-10 for the second bus (A or B.) |
| 12   | Issue the command to display the MUX card GPL status. |
|      | `rept-stat-gpl:gpl=YYYY`  
(Where `YYYY` is hipr for HIPR cards, or hipr2 for HIPR2 cards.) |
| 13   | Verify that all MUX card types are running the approved GPL. |
|      | `eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
rept-stat-gpl:gpl=YY  
Command entered at terminal #10.  
;  
eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y  
GPL Auditing ON  
| APPL | CARD | RUNNING | APPROVED | TRIAL  |
| YYYY | XX09 | XXX-XXX-XXX | XXX-XXX-XXX | XXX-XXX-XXX |
| YYYY | XX10 | XXX-XXX-XXX | XXX-XXX-XXX | XXX-XXX-XXX |
| YYYY | XX09 | XXX-XXX-XXX | XXX-XXX-XXX | XXX-XXX-XXX |
| YYYY | XX10 | XXX-XXX-XXX | XXX-XXX-XXX | XXX-XXX-XXX |
| YYYY | XX09 | XXX-XXX-XXX | XXX-XXX-XXX | XXX-XXX-XXX |
| YYYY | XX10 | XXX-XXX-XXX | XXX-XXX-XXX | XXX-XXX-XXX |
| YYYY | XX09 | XXX-XXX-XXX | XXX-XXX-XXX | XXX-XXX-XXX |
| YYYY | XX10 | XXX-XXX-XXX | XXX-XXX-XXX | XXX-XXX-XXX |
| Command Completed.  
;` |
| 14   | Repeat steps 12-13 for all MUX card types. |
### APPENDIX A. UPGRAADING FLASH-BASED GPL ON NON-IN-SERVICE AND UNPROVISIONED NETWORK CARDS.

#### Procedure 37: Flashing Inactive Cards

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue the command to display the GPL status.</td>
</tr>
<tr>
<td></td>
<td><code>rept-stat-gpl: gpl =XXXX</code> (Where XXXX is the GPL listed in the header of the procedure.)</td>
</tr>
<tr>
<td>2</td>
<td>Response to the command is displayed.</td>
</tr>
<tr>
<td></td>
<td>Record any card which shows an alarm:</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td><code>rept-stat-gpl: gpl =xxxx</code></td>
</tr>
<tr>
<td></td>
<td>Command entered at terminal #10.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td><code>GPL Auditing ON</code></td>
</tr>
<tr>
<td></td>
<td><code>APPL       CARD      RUNNING            APPROVED      TRIAL</code></td>
</tr>
<tr>
<td></td>
<td><code>XXXXXX     1101      xxx-xxx-xxx        xxx-xxx-xxx   xxx-xxx-xxx</code></td>
</tr>
<tr>
<td></td>
<td><code>XXXXXX     1103      xxx-xxx-xxx        xxx-xxx-xxx   xxx-xxx-xxx</code></td>
</tr>
<tr>
<td></td>
<td><code>XXXXXX     1111      xxx-xxx-xxx ALM    xxx-xxx-xxx   xxx-xxx-xxx</code></td>
</tr>
<tr>
<td></td>
<td>Command Completed.</td>
</tr>
<tr>
<td>3</td>
<td>Issue the status command for specific card</td>
</tr>
<tr>
<td></td>
<td><code>rept-stat-card: loc=XXXX</code> (Where XXXX is the card location recorded in the previous step.)</td>
</tr>
<tr>
<td>4</td>
<td>Response to the command is displayed.</td>
</tr>
<tr>
<td></td>
<td>If the PST for the card is OOS-MT-DSBLD or the command is rejected with MTT error E214420, go to step 7.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td><code>CARD   VERSION      TYPE      APPL       PST            SST       AST</code></td>
</tr>
<tr>
<td></td>
<td><code>1111   -----------  DSM       VSCCP      OOS-MT-DSBLD   Manual    ---</code></td>
</tr>
<tr>
<td></td>
<td><code>ALARM STATUS       = No Alarms.</code></td>
</tr>
<tr>
<td></td>
<td><code>BPDCM GPL version = 002-115-000</code></td>
</tr>
<tr>
<td></td>
<td><code>IMT BUS A          = -----</code></td>
</tr>
<tr>
<td></td>
<td><code>IMT BUS B          = -----</code></td>
</tr>
<tr>
<td></td>
<td><code>SCCP % OCCUP       = 0%</code></td>
</tr>
<tr>
<td></td>
<td>Command Completed.</td>
</tr>
<tr>
<td>5</td>
<td>Issue the command to inhibit card.</td>
</tr>
<tr>
<td></td>
<td><code>inh-card: loc=XXXX</code></td>
</tr>
<tr>
<td>6</td>
<td>Response to the command is displayed.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td><code>Card has been inhibited.</code></td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
<tr>
<td></td>
<td><code>Command Completed.</code></td>
</tr>
<tr>
<td>7</td>
<td>Issue the command to flash all GPLs on the card.</td>
</tr>
<tr>
<td></td>
<td><code>flash-card: code=appr: loc=XXXX</code></td>
</tr>
<tr>
<td></td>
<td><code>NOTE: this command causes the card to boot.</code></td>
</tr>
<tr>
<td>8</td>
<td>Response to the flash command is displayed.</td>
</tr>
<tr>
<td></td>
<td>Wait for the card to finish loading before proceeding.</td>
</tr>
<tr>
<td></td>
<td><code>eagl estp YY-MM DD hh:mm:ss EST PPP XX.x.x.x-YY.y.y</code></td>
</tr>
</tbody>
</table>

---

20 E2144 Cmd Rej: Location invalid for hardware configuration
### Procedure 37: Flashing Inactive Cards

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>If steps 5 &amp; 6 were executed, issue the command to allow card.</td>
<td><code>al w card: loc=XXXX</code></td>
</tr>
<tr>
<td>10</td>
<td>Response to the command is displayed.</td>
<td><code>eaglestp YY-MM-DD hh:mm:ss EST xx.x.x.x-YY.y.y</code> Card has been allowed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>eaglestp YY-MM-DD hh:mm:ss EST xx.x.x.x-YY.y.y</code> Command Completed.</td>
</tr>
<tr>
<td>11</td>
<td>Repeat Steps 3 – 10 for all cards recorded in step 2.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Repeat Steps 1 – 11 for each group of Flash-Based cards (see section 1.3.)</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX B. PREPARATIONS FOR UPGRADE EXECUTION

B.1 Target Release Software Download

The following procedure is a reference for the commands that will download an EAGLE software release to the inactive partition group of the TDM from either a remote FTP server or from the thumb drive containing the upgrade target release for the E5-MASP.

The following items are required before the release can be downloaded to the EAGLE from a FTP server:

- E5-IPSM or E5-ENET-B card running IPS application defined, configured, and IS-NR
- DIST application FTP server provisioned

Procedure 38: Download Target Software Release and Create USB Upgrade Media

<table>
<thead>
<tr>
<th>STEP</th>
<th>This procedure downloads the target software release and creates the USB upgrade media using a Windows PC.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</td>
</tr>
<tr>
<td></td>
<td>SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.</td>
</tr>
</tbody>
</table>

1. Using a PC running Windows 7 or later, download the target EAGLE Release from the Oracle Software Delivery Cloud (OSDC) to a local directory.
   - Go to [http://edelivery.oracle.com](http://edelivery.oracle.com)
   - Sign In
   - Search for the target EAGLE software release
   - Accept the Oracle Standard Terms and Restrictions
   - Click on the link to the zip file for the target EAGLE software release
   - Save the zip file to a local directory, for example C:\Users\Admin\Desktop\uusb_media
   - Unzip the Vxxxxxx-01.zip file that was downloaded to the same local directory.
   - This will produce a <eagle target software release number>.exe file.

2. Open a command window as Administrator: on Window 7 go to Start -> All Programs -> Accessories, right click on 'Command Prompt' and select 'Run as Administrator'; on Windows 8/10, go to Start, type cmd.exe in the search box, right click on 'Command Prompt' and select 'Run as Administrator'; then Change Directory to the path of the local directory.
   - C:\Users\Admin>cd Desktop\uusb_media
   - C:\Users\Admin\Desktop\uusb_media>
Procedure 38: Download Target Software Release and Create USB Upgrade Media

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Extract the downloaded release in the local directory by entering the name of the .exe file as seen in step 1 and verify that the directory contains the following files: the target release file 46.xx.xx.xx.xx-6X.yy.yy.tar.gz, uusb.clf, mkdosfs.exe, pvu.exe, uusb.exe.</td>
</tr>
<tr>
<td></td>
<td>C:\Users\Admin\Desktop\uusb_media&lt;eagle target software release number&gt;</td>
</tr>
<tr>
<td></td>
<td>7-Zip SFX 9.20 Copyright (c) 1999-2010 Igor Pavlov 2010-11-18</td>
</tr>
<tr>
<td></td>
<td>Processing archive: C:\Users\Admin\Desktop\uusb_media\46.3.0.0.0-68.12.0.e</td>
</tr>
<tr>
<td></td>
<td>Extracting 46.3.0.0.0-68.12.0.tar.gz</td>
</tr>
<tr>
<td></td>
<td>Extracting uusb.clf</td>
</tr>
<tr>
<td></td>
<td>Extracting mkdosfs.exe</td>
</tr>
<tr>
<td></td>
<td>Extracting pvu.exe</td>
</tr>
<tr>
<td></td>
<td>Extracting uusb.exe</td>
</tr>
<tr>
<td></td>
<td>Everything is Ok</td>
</tr>
<tr>
<td>4</td>
<td>If the target release is 46.3.0.0.0 or later and you need to create USB Upgrade Media, continue with the next step; otherwise stop.</td>
</tr>
<tr>
<td>5</td>
<td>Insert EAGLE USB media into a PC USB port.</td>
</tr>
<tr>
<td>6</td>
<td>Goto Start -&gt; Computer and wait for USB drive to be detected. Note its drive letter.</td>
</tr>
</tbody>
</table>
Procedure 38: Download Target Software Release and Create USB Upgrade Media

Enter uusb command with the release filename and drive of the USB media, where 46.xx.xx.xx.xx-68.yy.yy.tar.gz is the name of the release file in the directory from step 3 and E: is the USB media drive letter from above step 6.

```
C:\Users\Admin\Desktop\uusb_media>uusb.exe 46.xx.xx.xx.xx-68.yy.yy.tar.gz e:
```

Copyright (c) 1993, 2014, Oracle and/or its affiliates. All rights reserved.
Upgrade Media Creator Utility v1_1_0

2016:02:23 15:30:04 Checking whether Disk is present or not: ( e: )
2016:02:23 15:30:04 Disk is present in Drive: ( e: )
2016:02:23 15:30:04 Start Building ..... 
2016:02:23 15:30:04 Setting drive status: Busy 
2016:02:23 15:30:04 Creating Partition ....
2016:02:23 15:30:04 Partitioning Drive: \\PHYSICALDRIVE1 , REMOVABLE, USB
2016:02:23 15:30:04 Drive \\PHYSICALDRIVE1. Prepared partitions
2016:02:23 15:30:04 Formatting Partitions: e: , 32 , 1
mkdosfs.exe 2.11 (12 Mar 2005)
Win32 port by Jens-Uwe Mager <jum@anubis.han.de>
mkdosfs.exe: unable to lock \\e: 
2016:02:23 15:30:04 Formatted drive e: UPGRADEUSB DISK
2016:02:23 15:30:04 Copying File  pvu.exe
2016:02:23 15:30:05 pvu.exe file successfully copied to Drive e:
2016:02:23 15:30:05 Copying File  uusb.clf
2016:02:23 15:30:05 uusb.clf file successfully copied to Drive e:
2016:02:23 15:30:05 Copying File  46.3.0.0.0-68.12.0.tar.gz
2016:02:23 15:30:16 46.3.0.0.0-68.12.0.tar.gz file successfully copied to Dr e:
2016:02:23 15:30:16 Validating Disk....... 
2016:02:23 15:30:16 Validation Process Completed: e:
2016:02:23 15:30:16 Setting drive status: Ready

Close the Command window and directory folder, properly eject the USB media and remove it from the PC. The USB media is now ready to use for EAGLE upgrade.
Procedure 39: Download Target Release to Inactive Partition

<table>
<thead>
<tr>
<th>STEP</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Remove the thumb drives from the E5-MASPs.</td>
</tr>
<tr>
<td>2</td>
<td>If downloading the upgrade target release from an FTP server, continue, otherwise go to step 5.</td>
</tr>
<tr>
<td>3</td>
<td>Issue the command to display the status of the IPSM cards.</td>
</tr>
<tr>
<td>4</td>
<td>Response from the command is displayed.</td>
</tr>
<tr>
<td>5</td>
<td>Issue the command to display database status of both TDM partitions.</td>
</tr>
</tbody>
</table>

**Note:** This procedure downloads the target release to inactive partition of the TDMs. Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**
## Procedure 39: Download Target Release to Inactive Partition

6. Response to the command is displayed.

Record the card locations of the MASPs:

- Act MASP ____________
- Stby MASP ____________

Verify if either of the inactive partitions has not been formatted. Mark below. Example shows that inactive partition of 1116 not formatted.

- Disk formatted.
  - 1114 ________
  - 1116 ________

7. If either of the inactive partitions has not been formatted continue.

If the target release is 46.2 or higher, continue.
Otherwise go to Step 30.

8. Issue the command to retrieve measurement setup.

   `rtrv-meas-sched`

9. Response to retrieve command is displayed.

Record if collection is on or off:

   ________

   If COLLECT=ON, continue to next step.
   Otherwise, go to Step 12.

10. Issue the command to turn off measurement collection.\(^{21}\)

   `chg-meas:collect=off`

11. Response to the change command is displayed.

   - eaglestp YY-MM DD hh:mm:ss TTTT PPP XX.x.x.x-YY.y.y
   - COLLECT = off
   - SYSTOT- STP = (off)
   - SYSTOT- TT = (off)
   - SYSTOT- STPLAN = (off)
   - COMP- LNKSET = (off)
   - COMP- LNK = (off)
   - MFCD- STP = (on)
   - MFCD- LNK = (on)
   - MFCD- STPLAN = (on)
   - MFCD- LNKSET = (on)

12. Issue the command to display security log status.

   `rept-stat-seculog`

---

\(^{21}\) If executed, this step causes the database level to increment.
**Procedure 39: Download Target Release to Inactive Partition**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 13   | Response to the command is displayed.  
If the ENTRIES column displays any value other than 0 for the Standby ROLE, proceed to the next step.  
Otherwise, go to step 20. |
| 14   | Issue the command to copy the security log from the standby disk. |
| 15   | Response to the command is displayed.  
If this command fails, proceed to next step. Otherwise, go to Step 20. |
| 16   | Issue the command to display the FTA directory. |
| 17   | Response to the command is displayed.  
If there are any files that need to be saved, they need to be removed via a file transfer. |
| 18   | Issue the command to delete ALL files in the transfer area. |
| 19   | Response to the delete command is displayed. |
| 20   | Issue the command to format the inactive partition of the standby MASP. |
| 21   | Response from the format disk command is displayed. |
| 22   | Issue the command to display database status of both TDM partitions. |
Procedure 39: Download Target Release to Inactive Partition

23. Response to the command is displayed.

- Verify the inactive partition of the standby has been formatted. And the active partition is valid.

- If a database LEVEL, VERSION or STATUS is displayed the inactive partition has been formatted.

- If the database LEVEL of the active partition of the active and standby are not the same stop the procedure and contact My Oracle Support [see Appendix G.]

24. If the inactive partition of the active MASP has not been formatted continue, otherwise go to Step 30.

25. Issue the command to boot the Active MASP recorded in Step 6.

```plaintext
init-card: loc=XXXX
```

(Where the XXXX is the location of the active MASP record in a previous)

26. Response to init card command is displayed.

```plaintext
* 0281.0013 * CARD 111X OAMHC Card is isolated from the system
ASSY SN: xxxxxxxx
```

27. Issue the command to log back in to the system.

```plaintext
login:uid=XXXXXX
```

(Where XXXXX is a valid login ID)

28. Response to login command is displayed.

```plaintext
? Login failures since last successful LOGIN
Last successful LOGIN was on port ? on ??-??-?? @ ???:???:??
```

29. Repeat step 12 – 24.

30. If downloading the upgrade target release from an FTP server, continue.

- Otherwise, insert upgrade media into drive slot and go to step 33.

**Once inserted, allow time for the upgrade media to be detected by the system**

For E5-MASP systems, the USB drive is inserted in the flush mounted USB port on the active E5-MASP.
Procedure 39: Download Target Release to Inactive Partition

31. Issue command to retrieve the FTP servers provisioned on the system.
   **rtrv-ftp-serv**

   Example:
   ```
   eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x-YY.y.y
   APP       IPADDR           LOGIN            PRI O  PATH
   --------  ---------------  ---------------  ----  ----
   DIST      XXX.XX.X.XX      aaaaaa           Z     aaaaaaaaaaaaaaaaaaa
   No entries found ;
   ```

32. Response to the command is displayed.

   Verify that a software distribution, DIST, application server has been provisioned.

   If the DIST has not been provisioned, contact [My Oracle Support](https://support.oracle.com) for assistance.

33. Issue command to retrieve the EAGLE target release software.
   **act-upgrade: action=getrel:release="xx.xx.xx-yy.yy.yy.tar.gz" :src=server**  (downloading from the FTP server)

   or

   **act-upgrade: action=getrel:release="xx.xx.xx-yy.yy.yy.tar.gz" :src=usb**  (downloading from upgrade media)

   (Where the xx.xx.xx-yy.yy.yy is the release-build number of the upgrade target load (ex. 45.0.1-64.70.36.tar.gz).

34. Response to the command is displayed.

   Command execution time: approximately 20 – 30 minutes.

   If the software release has been downloaded from the USB drive, disconnect the drive from the ES-MASP.

35. Issue the command to display database status of both TDM partitions.
   **act-upgrade: action=dbstatus**
### Procedure 39: Download Target Release to Inactive Partition

**36** Response to the command is displayed.

- Verify the inactive partitions of the active & standby have been downloaded with the target release by confirming that database VERSION is the target version: C (coherency), LEVEL, and STATUS will be displayed as shown.

**37** If step 10 was executed, issue the command to turn the measurements collection on. Otherwise go to the end of the procedure.

**38** Response to the change command is displayed.

---

<table>
<thead>
<tr>
<th>CARDY APPL</th>
<th>LOC</th>
<th>C</th>
<th>T</th>
<th>LEVEL</th>
<th>TIME LAST UPDATE</th>
<th>VERSION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAM RVM</td>
<td>1113</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TDM CRNT</td>
<td>1114</td>
<td>Y</td>
<td>N</td>
<td>XXX</td>
<td>00-00-00 00:00:00</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>NORMAL</td>
</tr>
<tr>
<td>TDM BKUP</td>
<td>1114</td>
<td>Y</td>
<td>-</td>
<td>XXX</td>
<td>00-00-00 00:00:00</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>NORMAL</td>
</tr>
<tr>
<td>OAM USB</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TDM CRNT</td>
<td>1116</td>
<td>Y</td>
<td>N</td>
<td>XXX</td>
<td>00-00-00 00:00:00</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>NORMAL</td>
</tr>
<tr>
<td>TDM BKUP</td>
<td>1116</td>
<td>Y</td>
<td>-</td>
<td>XXX</td>
<td>00-00-00 00:00:00</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>NORMAL</td>
</tr>
</tbody>
</table>

### Inactive Partition Group

<table>
<thead>
<tr>
<th>CARDY APPL</th>
<th>LOC</th>
<th>C</th>
<th>T</th>
<th>LEVEL</th>
<th>TIME LAST UPDATE</th>
<th>VERSION</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDM CRNT</td>
<td>1114</td>
<td>Y</td>
<td>-</td>
<td>1</td>
<td>00-00-00 00:00:00</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>NORMAL</td>
</tr>
<tr>
<td>TDM BKUP</td>
<td>1114</td>
<td>Y</td>
<td>-</td>
<td>1</td>
<td>00-00-00 00:00:00</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>NORMAL</td>
</tr>
<tr>
<td>TDM CRNT</td>
<td>1116</td>
<td>Y</td>
<td>-</td>
<td>1</td>
<td>00-00-00 00:00:00</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>NORMAL</td>
</tr>
<tr>
<td>TDM BKUP</td>
<td>1116</td>
<td>Y</td>
<td>-</td>
<td>1</td>
<td>00-00-00 00:00:00</td>
<td>ZZZ-ZZZ-ZZZ</td>
<td>NORMAL</td>
</tr>
</tbody>
</table>
### B.2 Configuring Card-Set Network Conversion Method.

**Procedure 40: Preparation for Upgrade to use the Card-Set Network Conversion Method.**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The system should be running the target release on MASPs of 46.0 or higher.</td>
<td>This procedure should be run after Procedure 29, Step 40 in E54339 or before Procedure 8 in this document.</td>
</tr>
<tr>
<td>2</td>
<td>Issue the card status command to verify the target release GPL is running.</td>
<td><code>rept-stat-gpl: gpl=oamhc</code></td>
</tr>
<tr>
<td>3</td>
<td>Response to the status command is displayed.</td>
<td><code>eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x GPL Auditing On</code></td>
</tr>
<tr>
<td></td>
<td>Verify that the version of OAMHC GPL running is 46.0 or later.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Issue the command to retrieve the upgrade configuration</td>
<td><code>rtrv-upgrade-config</code></td>
</tr>
<tr>
<td>5</td>
<td>Response to the retrieve command is displayed.</td>
<td><code>eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x Software Access Key entered on system: vbsevhcea7vy5</code></td>
</tr>
<tr>
<td></td>
<td>If the Threshold Type has not already been changed to SET, it will be either GROUP or SYSTEM.</td>
<td>Configured Upgrade Threshold Type: <strong>GROUP</strong></td>
</tr>
<tr>
<td></td>
<td>If the SAK is not set, perform Appendix C.</td>
<td>Command Compl ed.</td>
</tr>
<tr>
<td>6</td>
<td>Issue the command to change the upgrade configuration</td>
<td><code>chg-upgrade-config: threstype=set: srvsets=X: limsets=Y</code></td>
</tr>
<tr>
<td></td>
<td><strong>Note:</strong> refer to 1.6, recommendation # 5 for the values of X and Y.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Response to the command is displayed.</td>
<td><code>eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x chg-upgrade-config: threstype=set: srvsets=X: limsets=Y</code></td>
</tr>
<tr>
<td></td>
<td>Command entered at terminal #tt.</td>
<td>Command Compl ed.</td>
</tr>
<tr>
<td>8</td>
<td>Issue the command to retrieve the upgrade configuration</td>
<td><code>rtrv-upgrade-config</code></td>
</tr>
</tbody>
</table>

---

22 Dashes are displayed until GPL auditing has initialized after the activity has been switched, which may take up to two minutes.
Procedure 40: Preparation for Upgrade to use the Card-Set Network Conversion Method.

9 Response to the retrieve command is displayed.

10 Issue the command to report the card status.

11 Response to the command is displayed.

12 Issue the upgrade activation command to create card sets.
**Procedure 40: Preparation for Upgrade to use the Card-Set Network Conversion Method.**

Response to the command is displayed.

**Notice:** the Create Set command assigns cards to sets using an optimal distribution, which assumes that the system is stable. If the system’s configuration is such that the distribution of the cards is not desirable, contact [My Oracle Support](https://support.oracle.com) for assistance when uncertain on how to alter the sets of cards. Otherwise, continue to next step if a change to the assignment of cards is necessary.

```
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
ACT-UPGRADE: Creating card set list...

Card set list created.

Card List: Group = MUX, Set = 1

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1209</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1309</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1109</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

MUX= 50%

Card List: Group = MUX, Set = 2

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1210</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1310</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1110</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

MUX= 50%

Card List: Group = SERVICE, Set = 1

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1205</td>
<td>SCCP</td>
<td>N/A</td>
<td>1700*</td>
</tr>
<tr>
<td>1207</td>
<td>GLS</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1315</td>
<td>IPS</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1311</td>
<td>MCP</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1105</td>
<td>SCCP</td>
<td>N/A</td>
<td>1700*</td>
</tr>
</tbody>
</table>

GLS= 50%
IPS= 66%
MCP= 50%
SCCP= 50%

Card List: Group = SERVICE, Set = 2

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1217</td>
<td>SCCP</td>
<td>N/A</td>
<td>1700*</td>
</tr>
<tr>
<td>1316</td>
<td>IPS</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1317</td>
<td>SCCP</td>
<td>N/A</td>
<td>1700*</td>
</tr>
<tr>
<td>1107</td>
<td>MCP</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1112</td>
<td>GLS</td>
<td>N/A</td>
<td>0</td>
</tr>
</tbody>
</table>

GLS= 50%
IPS= 33%
MCP= 50%
SCCP= 50%
```
Procedure 40: Preparation for Upgrade to use the Card-Set Network Conversion Method.

If cards need to be moved to a different set, issue the command to change the upgrade configuration:

\[ \text{chg-upgrade-config: loc=XXXX: assignset=NN} \]

(Where \( XXXX \) is the card to be moved and \( NN \) is the set it should move to.)

Response to the command is displayed.

Issue the one of the following commands to retrieve the card-set configuration:

\[ \text{act-upgrade: action=displaysets} \]
\[ \text{rtrv-upgrade-config: display=sets} \]
\[ \text{rtrv-upgrade-config: display=limsets} \]
\[ \text{rtrv-upgrade-config: display=srvsets} \]

\( ^{23} \) If card is unassigned, it can also be added to a set with this command. Unassigned cards are usually cards that were not IS-NR when the card sets were created.
### Procedure 40: Preparation for Upgrade to use the Card-Set Network Conversion Method.

<table>
<thead>
<tr>
<th>17</th>
<th>Response to the retrieve command is displayed.</th>
</tr>
</thead>
</table>

```
Response to the retrieve command is displayed.
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
Card List: Group = MUX, Set = 1

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1209</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1309</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1209</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

MUX= 50%

;
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
Card List: Group = MUX, Set = 2

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1210</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1310</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>1110</td>
<td>HIPR2</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

MUX= 50%

;
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
Card List: Group = SERVICE, Set = 1

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1205</td>
<td>SCCP</td>
<td>N/A</td>
<td>1700*</td>
</tr>
<tr>
<td>1207</td>
<td>GLS</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1315</td>
<td>IPS</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1311</td>
<td>MCP</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1105</td>
<td>SCCP</td>
<td>N/A</td>
<td>1700*</td>
</tr>
<tr>
<td>1111</td>
<td>IPS</td>
<td>N/A</td>
<td>0</td>
</tr>
</tbody>
</table>

GLS= 50%
IPS= 66%
MCP= 50%
SCCP= 50%

;
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
Card List: Group = SERVICE, Set = 2

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1217</td>
<td>SCCP</td>
<td>N/A</td>
<td>1700*</td>
</tr>
<tr>
<td>1316</td>
<td>IPS</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1317</td>
<td>SCCP</td>
<td>N/A</td>
<td>1700*</td>
</tr>
<tr>
<td>1107</td>
<td>MCP</td>
<td>N/A</td>
<td>0</td>
</tr>
<tr>
<td>1112</td>
<td>GLS</td>
<td>N/A</td>
<td>0</td>
</tr>
</tbody>
</table>

GLS= 50%
IPS= 33%
MCP= 50%
SCCP= 50%
```
**Procedure 40: Preparation for Upgrade to use the Card-Set Network Conversion Method.**

```
eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
Card List: Group = LINK, Set = 1

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1201</td>
<td>SS7</td>
<td>8</td>
<td>N/A</td>
</tr>
<tr>
<td>1213</td>
<td>SS7</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>1215</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1216</td>
<td>IPLIM</td>
<td>8*</td>
<td>N/A</td>
</tr>
<tr>
<td>1302</td>
<td>SS7</td>
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<td>1304</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1306</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1308</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1101</td>
<td>IPGWY</td>
<td>1*</td>
<td>N/A</td>
</tr>
</tbody>
</table>

ATM= 0%
IPGWY= 50%
IPLIM= 100%
SS7= 52%

; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
Card List: Group = LINK, Set = 2

<table>
<thead>
<tr>
<th>CARD</th>
<th>APPL</th>
<th>LINKS</th>
<th>TPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1211</td>
<td>SS7</td>
<td>4</td>
<td>N/A</td>
</tr>
<tr>
<td>1212</td>
<td>SS7</td>
<td>5</td>
<td>N/A</td>
</tr>
<tr>
<td>1214</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1301</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1303</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1305</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1307</td>
<td>SS7</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>1102</td>
<td>IPGWY</td>
<td>1*</td>
<td>N/A</td>
</tr>
<tr>
<td>1103</td>
<td>IPLIM</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>1104</td>
<td>IPLIM</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

ATM= 0%
IPGWY= 50%
IPLIM= 0%
SS7= 48%

; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
xxx is unassigned.
End of Card List display.

; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
Command Complete: Upgrade action completed successfully

18 Repeat steps 14 – 17 as cards need to be moved.
```
# APPENDIX C. ENTERING UPGRADE SOFTWARE ACCESS KEY

## Procedure 41: Validate Upgrade Software Access Key

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If a USB drive is present, remove it. <strong>If server software delivery (SSD): no RMD should be inserted in drive slot.</strong></td>
</tr>
<tr>
<td>2</td>
<td>For release 45.x through 46.0, issue the command to validate the Upgrade Software Access Key. (^{24}) Skip this command for releases 46.1 and later. &lt;br&gt; (\text{chg-upgrade-config: sak=XXXXXXXXXXXXX src=\text{fixed}}) &lt;br&gt; (Where XXXXXXXXXXXXXX is the Software Access Key.)</td>
</tr>
<tr>
<td>3</td>
<td>Response to command is displayed. &lt;br&gt; Verify the correct Upgrade target release is in the output.</td>
</tr>
</tbody>
</table>

---

\(^{24}\) If SAK unavailable, contact My Oracle Support.
D.1 Samples of message from convertstp action for act-upgrade command

The following are illustrative of the messages displayed on the user terminal during the semantic check of the upgrade command in Procedure 8, step 2. Headers have been removed for brevity.

```
IMT Bus Check Started
IMT Bus Check Completed Successfully.
Hardware Validation Test Started
Hardware Validation Test Completed Successfully.
IP Route Conflict Validation Report
No conflicts with Eagle PVN and FCN found
End IP Route Conflict Validation Report.
Using inactive standby partitions for OAM conversion (disk=xxxxx)
```

The following are illustrative of the messages to be seen on the console during Procedure 8, step 2 of the upgrade procedure if the fixed disk is used for OAM conversion workspace. Headers and messages not directly output by upgrade have been omitted.

```
Using inactive standby partitions for OAM conversion (dest=fixed)
ACT-UPGRADE: MASP A - BLIXP GPL processing.
ACT-UPGRADE: MASP A - GPL uploaded.
Starting to format the Standby TDM...
Format-disk of standby fixed disk complete.
Starting to copy GPLs to Standby TDM from removable...
GPLs copy completed.
Tables conversion started...
NOTICE: Converting XXXX.TBL
Starting to copy system tables to Standby TDM from Active TDM..
Converting Standby OAM System partition.
Preserving the source-release DB version.
Conversion of Standby TDM has completed
Marking Standby TDM Upgrade Phase = 2...
Swapping Active and Inactive partition on Standby...
Standby MASP has not finished initializing - please wait...
SYSTEM TREE REBALANCING STARTED
Table xxxxxxxx.tbl: REBALANCING COMPLETED
Table yyyyyyy.tbl: REBALANCING COMPLETED
12576 OF 12576 TREES REBALANCED
13 OF 13 TABLES REBALANCED
```
SYSTEM TREE REBALANCING COMPLETED
;
Standby MASP has not finished initializing - please wait...
;
Starting to backup Standby TDM...
;
ACT-UPGRADE: MASP B - Active MASP will reboot and be converted for upgrade.
;
Starting to format the Standby TDM...
;
Format disk in progress
;
Format-disk of standby fixed disk complete.
;
Starting to copy GPLs to Standby TDM from removable...
;
NOTICE: Converting XXXX.TBL
;
Starting to copy system tables to Standby TDM from Active TDM...
;
Converting Standby OAM System partition.
Preserving the source-release DB version.
;
Conversion of Standby TDM has completed
;
Marking Standby TDM Upgrade Phase = 2...
;
Swapping Active and Inactive partition on Standby...
;
Standby MASP has not finished initializing - please wait...
;
Starting to backup Standby TDM...
;
ACT-UPGRADE: OAM upgrade complete
;
ACT-UPGRADE: prepare to initialize network cards
;
Starting network conversion...
;
Upgrading n of m <APPL> cards [XXXX]
;
Command in Progress : Network conversion in progress
;
ACT-UPGRADE: Network conversion complete
;
ACT-UPGRADE: Network upgrade complete
;
Command Complete : Upgrade action completed successfully
;
INFO: Provisioning subsystem is in duplex mode.
D.2 Determination and Recovery of DDL Hunt during Upgrade

NOTE: The following section should be completed with the assistance of My Oracle Support.

After loading its GPL and database tables, the last step required by an MTP card is to crossload its dynamic database (DDB) from adjacent cards. The DDB contains the status of all routes, linksets, and links provisioned in the system. The Dynamic Data Load (DDL) is the process where a loading MTP card obtains the current view of the network via downloading it from an already IS-NR network card. In order for a network card to download a proper view of the network status, the network must remain quiescent during the download. If an update to the DDB occurs, then the download aborts and restarts. Depending on the size of the network, it may take as long as 4 seconds to complete this process. Please note that the network must remain stable (no changes) during this phase for the download to complete successfully.

The card reports its PST as IS-ANR and its SST as DDL Hunt:

Card Failure: Card 1101 did not return to IS-NR.
Status of card 1101: PST: IS-ANR SST: DDL Hunt AST: -----

Please note this appendix addresses DDL during Upgrade. Refer to external reference [8] in section 1.2.1 for recovery in full function mode.

A system is considered unstable when provisioned and configured devices are cycling from an alarmed state to a clear state. Bouncing links, link congestion and discard, and DPC|Route transition have the most impact on the DDL Hunt state. Table 21 lists these conditions by UAM number and describes the recovery steps.

The guideline to determine if DDL Hunt is possible when a card boots and tries to reload is based on the number of DDB events, which causes network management messages to be generated. An event is one cycle of alarming and clearing:

1237. 0236 ** SLK 1201, A1 t kl cl set REPT-LKF: not aligned
1240. 0200 SLK 1201, A1 RCVRY-LKF: link available

One event consists of two transactions, which generates two network management messages. Eight events in one minute causes sixteen messages which averages to a stability period of less than four seconds. This can range from eight events per one device to one event per eight devices.

Table 21. Recovery from DDL Hunt by UAM.

<table>
<thead>
<tr>
<th>UAM</th>
<th>Device</th>
<th>Condition</th>
<th>Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>0236</td>
<td>0200</td>
<td>SLK</td>
<td>Bouncing Link</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>A) Issue DDB checksum SEND-MSG per internal Ref. [8]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B)Issue CANC-SLK to deactivate the affected link</td>
</tr>
<tr>
<td>0264 – 0269</td>
<td>SLK</td>
<td>Link Congestion</td>
<td>A) Issue DDB checksum SEND-MSG per internal Ref. [8]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B)Investigate the far-end and fix the far-end</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C) Issue CANC-SLK to deactivate the affected link</td>
</tr>
<tr>
<td>0270 – 0275</td>
<td>SLK</td>
<td>Link Discard</td>
<td>A) Issue DDB checksum SEND-MSG per internal Ref. [8]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B)Investigate the far-end and fix the far-end</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C) Issue CANC-SLK to deactivate the affected link</td>
</tr>
<tr>
<td>0311 – 0313</td>
<td>Route</td>
<td>DPC Transition</td>
<td>A) Issue DDB checksum SEND-MSG per internal Ref. [8]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B)Investigate the far-end and fix the far-end</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C) Issue CANC-SLK to deactivate the affected link</td>
</tr>
<tr>
<td>0314 – 0316</td>
<td>Route</td>
<td>Route Transition</td>
<td>A) Issue DDB checksum SEND-MSG per internal Ref. [8]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>B)Investigate the far-end and fix the far-end</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>C) Issue CANC-SLK to deactivate the affected link</td>
</tr>
</tbody>
</table>

Note: If the front-end switches activity, device may return to previous state.
SWOPS Sign Off.

## Discrepancy List

<table>
<thead>
<tr>
<th>Date</th>
<th>Test Case</th>
<th>Description of Failures and/or Issues. Any CSRs / RMAs issued during Acceptance. Discrepancy</th>
<th>Resolution and Upgrade Center Engineer Responsible</th>
<th>Resolution Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
APPENDIX E. EEDB INSTALLATION

This section defines the step-by-step actions performed to execute EEDB software installation on E5-APP-B-02.

Figure 2: Initial EEDB Application Installation Path

This section covers initial installation of the EEDB application on an E5-APP-B card.

E.1 Upgrade Overview

E.1.1 Required Materials

- Two (2) target-release USB media or a target-release ISO file.
- A terminal and null modem cable to establish a serial connection.
- Write down the system configuration information.

Table 22: EEDB System Configuration Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node A IP (IPv4)</td>
<td></td>
</tr>
<tr>
<td>Node A NetMask (IPv4)</td>
<td></td>
</tr>
<tr>
<td>Node A Default Router IP (IPv4)</td>
<td></td>
</tr>
<tr>
<td>Node B IP (IPv4)</td>
<td></td>
</tr>
<tr>
<td>Node B NetMask (IPv4)</td>
<td></td>
</tr>
<tr>
<td>Node B Default Router IP (IPv4)</td>
<td></td>
</tr>
<tr>
<td>NTP1 IP (IPv4)</td>
<td></td>
</tr>
<tr>
<td>NTP2 IP (IPv4)</td>
<td></td>
</tr>
<tr>
<td>NTP3 IP (IPv4)</td>
<td></td>
</tr>
<tr>
<td>VIP</td>
<td></td>
</tr>
<tr>
<td>Time Zone</td>
<td></td>
</tr>
</tbody>
</table>

- Passwords for users on the local system:
Table 23. EEDB User Password Table

<table>
<thead>
<tr>
<th>EEDB USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Login</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>root</td>
</tr>
<tr>
<td>eedbconfig</td>
</tr>
<tr>
<td>admusr</td>
</tr>
</tbody>
</table>

E.1.2 Installation Phases

The following table illustrates the progression of the installation process by procedure with estimated times. The estimated times and the phases that must be completed may vary due to differences in typing ability and system configuration. The phases outlined in Table 6 and Table 7 are to be executed in the order they are listed.

Table 24. Installation Phases for EEDB

<table>
<thead>
<tr>
<th>Phase</th>
<th>Elapsed Time (Minutes)</th>
<th>Activity</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This Step</td>
<td>Cum.</td>
<td></td>
</tr>
<tr>
<td>Connectivity setup</td>
<td>15</td>
<td>15</td>
<td>Set up connectivity to the MPS Servers.</td>
</tr>
<tr>
<td>Pre-upgrade check</td>
<td>5</td>
<td>20</td>
<td>Verify requirements for install are met.</td>
</tr>
<tr>
<td>Configure the Network</td>
<td>5</td>
<td>25</td>
<td>Configure the Network using platcfg on Node A</td>
</tr>
<tr>
<td>Configure the Network</td>
<td>5</td>
<td>30</td>
<td>Configure the Network using platcfg on Node B</td>
</tr>
<tr>
<td>Create the bulkconfig file</td>
<td>5</td>
<td>35</td>
<td>Create the configuration file</td>
</tr>
<tr>
<td>Create the bulkconfig file</td>
<td>5</td>
<td>40</td>
<td>Create the configuration file</td>
</tr>
<tr>
<td>Pre-install health check</td>
<td>5</td>
<td>45</td>
<td>Run the syscheck utility to verify that all servers are operationally sound on Node A</td>
</tr>
<tr>
<td>Pre-install health check</td>
<td>5</td>
<td>50</td>
<td>Run the syscheck utility to verify that all servers are operationally sound on Node B</td>
</tr>
<tr>
<td>Configure Server Node A</td>
<td>5</td>
<td>55</td>
<td>Set hostname, designation and time.</td>
</tr>
<tr>
<td>Configure Server Node B</td>
<td>5</td>
<td>60</td>
<td>Set hostname, designation and time.</td>
</tr>
<tr>
<td>Install Servers</td>
<td>30</td>
<td>90</td>
<td>Install software on Node A and B</td>
</tr>
</tbody>
</table>
E.1.3 Upgrade Preparation

**Procedure 42 Setting up the upgrade environment for EEDB**

This procedure sets up the upgrade environment. Windows are opened for both MPS servers.

**NOTE:** Call My Oracle Support for assistance if modem access is the method used for upgrade.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT My Oracle Support AND ASK FOR UPGRADE ASSISTANCE.**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Establish a connection to MPS A. If access to the MPS servers is not available through an IP network, connect to the E5-APP-B card via the serial port. 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. <strong>Cable part numbers - 830-1220-xx</strong></td>
</tr>
<tr>
<td>2</td>
<td>On the workstation, open one terminal window in preparation for establishing remote connections to the MPS servers. Create a terminal window</td>
</tr>
<tr>
<td>3</td>
<td>Create a terminal window for MPS A. Create a terminal window and give it a title of “MPS A”</td>
</tr>
<tr>
<td>4</td>
<td>MPS A: Enable capture file and verify the correspondent file is created. Enable the data capture and verify that the data capture file is created at the path specified.</td>
</tr>
<tr>
<td>5</td>
<td>Log into MPS A. <code>&lt;hostname&gt; console login: admusr password: &lt;password&gt;</code></td>
</tr>
<tr>
<td>6</td>
<td>MPS A: Start screen Session. Execute the following command to start screen and establish a console session with MPS A. <code>$ screen -L</code></td>
</tr>
<tr>
<td>7</td>
<td>Establish a connection to MPS B. If access to the MPS servers is not available through an IP network, connect to the E5-APP-B card via the serial port. 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. <strong>Cable part numbers - 830-1220-xx</strong></td>
</tr>
<tr>
<td>8</td>
<td>Create a terminal window for MPS B. Create a terminal window and give it a title of “MPS B”</td>
</tr>
<tr>
<td>9</td>
<td>MPS 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.</td>
</tr>
<tr>
<td>10</td>
<td>Log into MPS B. <code>&lt;hostname&gt; console login: admusr password: &lt;password&gt;</code></td>
</tr>
</tbody>
</table>
Procedure 42: Setting up the upgrade environment for EEDB

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MPS B: Start screen Session.</td>
<td><code>$ screen -L</code></td>
</tr>
<tr>
<td>2</td>
<td>MPS A and B: Procedure Complete.</td>
<td>This procedure is complete.</td>
</tr>
</tbody>
</table>

Procedure 43: Pre-upgrade requirements

Steps

- Verify all required materials are present.
- Verify the availability of passwords for MPS systems.
- Procedure Complete.

Procedure 44: Create Configuration file on Node A

This procedure creates the EEDB configuration file.

E.1.4 Software Installation Procedures

Procedure 44: Create Configuration file on Node A

IMPORTANT: Installation of the Operating System on an Oracle Application Server should be completed before starting installation procedure. Refer to Procedure 52 for TPD installation.
### Procedure 44: Create Configuration file on Node A

1. Log in as “admusr” user.
   - If not already logged in, then login as “admusr”:
     ```bash
     [hostname] consolelogin: admusr
     password: password
     ```

2. Switch super user to root.
   ```bash
   $ sudo su -
   ```

3. Create the file in root directory named as “bulkconfig”
   ```bash
   $ vim /root/bulkconfig
   ```
   Content of file should be as follow:
   ```ini
   host, <NodeA-hostname>, <Node A-IP>, bond0:1, <Node A-NetMask>, <Node A Default route>, 1A
   host, <NodeB-hostname>, <Node B-IP>, bond0:1, <Node B-NetMask>, <Node B Default route>, 1B
   vip, <Virtual IP>, bond0:2, <VIP Netmask>
   ntpserver1, <NTP Server IP>
   timezone, America/New_York
   ```
   For Example:
   ```ini
   host, Santos-A, 10.75.141.64, bond0:1, 255.255.255.0, 10.75.141.1, 1A
   host, Santos-B, 10.75.141.65, bond0:1, 255.255.255.0, 10.75.141.1, 1B
   vip, 10.75.141.66, bond0:2, 255.255.255.0
   ntpserver1, 10.250.32.10
   timezone, America/New_York
   ```
   Note: Upto 3 NTP servers can be added in bulkconfig file. NTP servers should have names ntpserver1, ntpserver2 and ntpserver3 respectively.

4. Procedure Complete.
   This procedure is complete.

### Procedure 45: Create Configuration file on Node B

**Procedure 45: Create Configuration file on Node B**

This procedure creates the EEDB configuration file.

**NOTE:** Call My Oracle Support for assistance if modem access is the method use for upgrade.

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

**SHOULD THIS PROCEDURE FAIL, CONTACT** My Oracle Support **AND ASK FOR UPGRADE ASSISTANCE.**

**IMPORTANT:** Installation of the Operating System on an Oracle Application Server should be completed before starting installation procedure. Refer to Procedure 52 for TPD installation.
### Procedure 45: Create Configuration file on Node B

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Log in as “admusr” user on Node B. If not already logged in, then login as “admusr”: <code>[hostname] consolelogin: admusr password: password</code></td>
</tr>
<tr>
<td>2.</td>
<td>Switch super user to root. <code>$ sudo su</code></td>
</tr>
</tbody>
</table>
| 3.   | Create the file in root directory named as “bulkconfig” `$ vim /root/bulkconfig` Content of file should be as follow: 
  - `host, <NodeA-hostname>, <Node A-IP>, bond0:1, <Node A-NetMask>, <Node A Default route>, 1A` 
  - `host, <NodeB-hostname>, <Node B-IP>, bond0:1, <Node B-NetMask>, <Node B Default route>, 1B` 
  - `vip, <Virtual IP>, bond0:2, <VIP Netmask>` 
  - `ntpserver1, <NTP Server IP>` 
  - `timezone, America/New_York` 
  - For Example: 
    - `host, Santos-A, 10.75.141.64, bond0:1, 255.255.255.0, 10.75.141.1, 1A` 
    - `host, Santos-B, 10.75.141.65, bond0:1, 255.255.255.0, 10.75.141.1, 1B` 
    - `vip, 10.75.141.66, bond0:2, 255.255.255.0` 
    - `ntpserver1, 10.250.32.10` 
    - `timezone, America/New_York` 
  - Note: Upto 3 NTP servers can be added in bulkconfig file NTP servers should have names ntpserver1, ntpserver2 and ntpserver3 respectively. |
| 4.   | Procedure Complete. This procedure is complete. |

### Procedure 46: Pre-Install Configuration on Node A

**Procedure 46: Pre-Install Configuration on Node A**

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.

1. Connect to the Server. If not already connected, connect to the E5-APP-B card via the serial port. 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. **Cable part numbers - 830-1220-xx**

2. Log in as “admusr” user. If not already logged in, then login as ‘admusr’: `[hostname] consolelogin: admusr password: password`

3. Start platcfg utility. `$ sudo su - platcfg`
Procedure 46: Pre-Install Configuration on Node A

4. **Navigate to the Server Configuration screen.**
   - Select **Server Configuration** and press `[ENTER]`

   ![Server Configuration Menu](image1)

5. **Navigate to the Hostname screen.**
   - Select **Hostname** and press `[ENTER]`

   ![Hostname Menu](image2)

6. **Select Edit to edit the hostname.**
   - Select **Edit** and press `[ENTER]`

   ![Edit Menu](image3)

7. **Enter the hostname and press ok.**
   - 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.

   ![Edit Hostname](image4)

While connected to the serial console, some console output might come when the user is using the serial console to configure the EEDB. Those serial output are harmless and can be ignored.
### Procedure 46: Pre-Install Configuration on Node A

8. Exit Back to the Server Configuration Menu.  
   Select EXIT to exit back to the Server Configuration Menu. Verify that the hostname has been properly set.

   Select Designation/Function and press [ENTER]

10. Enter the designation.  
    Enter the appropriate designation in the Designation field (Note: the designation must be capitalized). Select OK and press [ENTER]

11. Enter the Designation press “Exit”.  
    Copyright (C) 2003, 2016, Oracle and/or its affiliates. All— Options +———  
    Hostname: OSORNA-A  
    Designation Information  
    Designation: 1A  
    Function:
Procedure 46: Pre-Install Configuration on Node A

12. Select “Set Clock” Menu.

13. 1) Select “Edit” from the options dialogue box.

2) Using an NTP source, set the Date/Time to be correct for the Eastern Time zone (GMT -5) and press “OK”.

NOTE: All systems default to Eastern time post IPM. It is important to set the time for the Eastern Time zone at this time.

14. Verify that the Date and Time is correct then select and press “Exit”.

Current Date: 01/02/2017
Current Time: 20:01:12
### Procedure 46: Pre-Install Configuration on Node A

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.</td>
<td>Exit from platcfg menu. Select <strong>EXIT</strong> until the platcfg menu is closed and the command line is displayed.</td>
</tr>
<tr>
<td>16.</td>
<td>Reboot the Server. <code>$ sudo reboot</code></td>
</tr>
<tr>
<td>17.</td>
<td>Procedure complete. Procedure is complete.</td>
</tr>
</tbody>
</table>

### Procedure 47 Pre-Install Configuration on Node B

**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.**

1. Connect to the Server. If not already connected, connect to the E5-APP-B card via the serial port.
   
   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. **Cable part numbers - 830-1220-xx**

2. Log in as “admusr” user. If not already logged in, then login as ‘admusr’:
   
   ```
   [hostname] consolelogin: admusr
   password: password
   ```

3. Start platcfg utility.

   `$ sudo su - platcfg`

4. Navigate to the **Server Configuration** screen.

   **Select Server Configuration and press [ENTER]**
### Procedure 47: Pre-Install Configuration on Node B

5. **Navigate to the Hostname screen.**
   - Select Hostname and press [ENTER]

6. **Select Edit to edit the hostname.**
   - Select Edit and press [ENTER]

7. **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.

While connected to the serial console, some console output might come when the user is using the serial console to configure the EEDB. Those serial output are harmless and can be ignored.

8. **Exit Back to the Server Configuration Menu.**
   - Select EXIT to exit back to the Server Configuration Menu. Verify that the hostname has been properly set.

9. **Navigate to the Designation/Function menu option.**
   - Select Designation/Function and press [ENTER]
Procedure 47: Pre-Install Configuration on Node B

10. Enter the designation. Enter the appropriate designation in the Designation field (Note: the designation must be capitalized). Select OK and press [ENTER].

11. Enter the Designation press “Exit”.

12. Select “Set Clock” Menu.
**Procedure 47: Pre-Install Configuration on Node B**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
</table>
| 13.  | 1) Select “Edit” from the options dialogue box.  

2) Using an NTP source, set the Date/Time to be correct for the Eastern Time zone (GMT -5) and press “OK”.  

NOTE: All systems default to Eastern time post IPM. It is important to set the time for the Eastern Time zone at this time. |
| 14.  | Verify that the Date and Time is correct then select and press “Exit”. |
| 15.  | Exit from platcfg menu.  

Select EXIT until the platcfg menu is closed and the command line is displayed. |
| 16.  | Reboot the Server.  

$ sudo reboot |
| 17.  | Procedure complete.  

Procedure is complete. |
## Procedure 48: Install Application on Node A

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.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>MPS A: Copy the EEDB ISO on 1A. Refer Procedure 50 to download the EEDB ISO and copy EEDB 46.8 to /var/TKLC/upgrade directory.</td>
</tr>
<tr>
<td>2.</td>
<td>Create a terminal window and log into MPS A. If not already connected, connect to the E5-APP-B card via the serial Port. 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. Cable part numbers - 830-1220-xx</td>
</tr>
<tr>
<td>3.</td>
<td>MPS A: Login prompt is displayed. <code>&lt;hostname&gt; console login:</code> Note: Hit enter if no login prompt is displayed.</td>
</tr>
<tr>
<td>4.</td>
<td>MPS A: log in as “admusr” user. <code>[hostname] console login: admusr password: password</code></td>
</tr>
<tr>
<td>6.</td>
<td>MPS A: Start platcfg utility. <code>$ sudo su - platcfg</code></td>
</tr>
<tr>
<td>8.</td>
<td>MPS A: Select Early Upgrade Checks Select the “Early Upgrade Checks” menu to verify that the system is ready for upgrade.</td>
</tr>
</tbody>
</table>
Procedure 48: Install the Application on Node A

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.

```
$ earlycheck failed for the next upgrade
Look at earlyChecks.log for more info
Failing Early Upgrade Checks at 2019-11-17T09:19:49
Running earlyUpgradeChecks() for Upgrade::EarlyPolicy::TFBB-EarlyChecks upgrade policy ...
ERROR: Raid mirrors are syncing!
ERROR: raid is syncing!
ERROR: earlyUpgradeChecks() code failed for Upgrade::EarlyPolicy::TFBB-EarlyChecks
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 2019-11-17T09:19:49

[admusr@revapri -]# cat /proc/mdstat
Personalities : [raid1]
md1 : active raid1 md2[1] mdsl[0] 240980 blocks super 1.0 [2/2] [UU]
   240980 blocks super 1.0 [2/2] [UU]
      active ignored [0]-running - [1]-active
md2 : active raid1 mdsl[0] mds[1]
   49947232 blocks super 1:1 [2/2] [UU]

unused devices: <none>
```

Contact My Oracle Support following the instructions on the front page if the early upgrade checks fail due to any other reason.

9. MPS A: Navigate to the Initiate Upgrade menu
   Select the Initiate Upgrade menu and press [ENTER].

   ![Upgrade Menu]

   Validate Media
   Early Upgrade Checks
   Initiate Upgrade
   Copy USB Upgrade Image
   Non Tekelec RPM Management
   Exit

10. MPS A: Select the Upgrade Media.
   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. Select the desired upgrade media and press [ENTER].

   ![Upgrade Menu]

   Validate Media
   Early Upgrade Checks
   Initiate Upgrade
   Copy USB Upgrade Image
   Non Tekelec RPM Management
   Exit
Procedure 48: Install the Application on Node A

11. MPS A: Upgrade proceeds. The screen displays the output like following, indicating that the upgrade software is first running the upgrade checks, and then proceeding with the upgrade.

   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...

12. MPS A: Upgrade proceeds. Many informational messages appear on the terminal screen as the upgrade proceeds. The messages are not shown here for clarity sake. When installation is complete, the server reboots.

13. MPS A: Upgrade completed. After the final reboot, the screen displays the login prompt as in the example below.

   Authorized uses only. All activity may be monitored and reported.
   1542751724: Upstart Job alarmMgr: started
   #----------------------#
   1542751724: Upstart Job tpdProvd: started
   #----------------------#
   1542751724: Upstart Job syscheck: started
   #----------------------#
   1542751725: Upstart Job ntdMgr: started
   #----------------------#

14. MPS A: log in as "admusr" user.

   [hostname] consolelogin: admusr
   password: password

15. MPS A: Check the Upgrade log. Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.

   $ grep -i error /var/TKLC/log/upgrade/upgrade.log

   Check the output of the upgrade log, Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix G, if the output contains any errors beside the following:

   1542696235::Bringing up interface bond0: /etc/sysconfig/network-scripts/ifup-eth: line 141: echo: write error: Permission denied
   1542696235::error in ifcfg-bond0:1: didn't specify device or ipaddr
   1542696235::error in ifcfg-bond0:2: already seen ipaddr in ifcfg-bond0:1.

   $ grep -i warning /var/TKLC/log/upgrade/upgrade.log

   Examine the output of the above command to determine if any warnings were reported. Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix G, if the output contains any warnings beside the following:
Procedure 48: Install the Application on Node A

1542695599:: WARNING: /usr/TKLC/plat/etc/alarms/alarms.xml has been updated...reparsing xml...
1542695670:: WARNING: erase unlink of /etc/ssh/hwmgmt.conf failed: No such file or directory
1542695672:: WARNING: /etc/kdump.conf created as /etc/kdump.conf.rpmnew
1542695778:: WARNING: /etc/shadow created as /etc/shadow.rpmnew
1542695843:: WARNING: This capability is not defined in the default capabilities.
1542695843:: WARNING: Nor is it defined in the current hardware ID's capabilities.
1542695843:: WARNING: CAPABILITY: service_hp-asrd_disabled
1542695916:: WARNING: This capability is not defined in the default capabilities.
1542695916:: WARNING: Nor is it defined in the current hardware ID's capabilities.
1542695916:: WARNING: HARDWARE ID: E5APPB
1542696000:: WARNING: This capability is not defined in the default capabilities.
1542696000:: WARNING: Nor is it defined in the current hardware ID's capabilities.
1542696000:: WARNING: HARDWARE ID: E5APPB
1542696600:: WARNING: /etc/cloud/cloud.cfg created as /etc/cloud/cloud.cfg.rpmnew

16. MPS A: Check that the upgrade completed successfully.

$ grep "Upgrade returned success" /var/TKLC/log/upgrade/upgrade.log

17. MPS A: 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 on the Appendix G.

1399367207:: Upgrade returned success!

18. MPS A: Install Complete.

Install Procedure is complete.

Procedure 49: Install Application on Node 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. MPS B: Install 1B.

Refer Procedure 50 to download the EEDB ISO and copy EEDB 46.8 ISO to /var/TKLC/upgrade directory.

2. MPS B: Install Complete.

Create a terminal window log into MPS B.

If not already connected, connect to the E5-APP-B card via the serial port.

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

3. MPS B: Login prompt is displayed.

<host name> console login:

Note: Hit enter if no login prompt is displayed.

4. MPS B: log in as “admusr” user.

<host name> console login: admusr
password: password
### Procedure 49: Install the Application on Node B

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td><strong>MPS B:</strong> Start platcfg utility. <code>&lt;code&gt;$ sudo su - platcfg&lt;/code&gt;</code></td>
</tr>
<tr>
<td>7.</td>
<td><strong>MPS B:</strong> Navigate to the Upgrade menu. The platcfg <code>Main Menu</code> appears. On the <code>Main Menu</code>, select <code>Maintenance</code> and press [ENTER]. Select the <code>Upgrade</code> menu and press [ENTER].</td>
</tr>
<tr>
<td>8.</td>
<td><strong>MPS A:</strong> Select Early Upgrade Checks. Select the “Early Upgrade Checks” menu to verify that the system is ready for upgrade.</td>
</tr>
</tbody>
</table>
### Procedure 49: Install the Application on Node B

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.

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.

Error: Failed running earlyUpgradeChecks(). code

Correlation: architecture 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 101413059

```
[oracle@vmppri -]# cat /proc/meminfo
Personalities : [raid0]
md1 : active raid1 md2[2] md0[0]
 261680 blocks super 1.0 [2/2] [U]
md2 : active raid1 md0[0] md1[1]
 261680 blocks super 1.0 [2/2] [U]
[----------] kio/s = 29.7b (190/72020/408447232) finish=73.3min speed=759.55K/sec
//time/ 64 pages [148K], 6483652 chunk
```

Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix G, if the early upgrade checks fail due to any other reason.

<table>
<thead>
<tr>
<th></th>
<th>9.</th>
</tr>
</thead>
</table>
| MPS A: Navigate to the Initiate Upgrade menu | Select the Initiate Upgrade menu and press [ENTER].

<table>
<thead>
<tr>
<th>Initiate Upgrade Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validation Media</td>
</tr>
<tr>
<td>Early Upgrade Checks</td>
</tr>
<tr>
<td><strong>Initiate Upgrade</strong></td>
</tr>
<tr>
<td>Copy USB Upgrade Image</td>
</tr>
<tr>
<td>Non Tekelco RPM Management</td>
</tr>
<tr>
<td>Exit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>10.</th>
</tr>
</thead>
</table>
| MPS B: Select the Upgrade Media. | 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. Select the desired upgrade media and press [ENTER].

<table>
<thead>
<tr>
<th>Choose Upgrade Media Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>11.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPS B: Upgrade proceeds.</td>
<td>The screen displays the following, indicating that the upgrade software is first validating the media, and then proceeding with the upgrade.</td>
</tr>
</tbody>
</table>
Procedure 49: Install the Application on Node B

12. **MPS B:** Upgrade proceeds.

   Many informational messages appear on the terminal screen as the upgrade proceeds. The messages are not shown here for clarity sake.

   When installation is complete, the server reboots.

13. **MPS B:** Upgrade completed.

   After the final reboot, the screen displays the login prompt as in the example below.

   Authorized uses only. All activity may be monitored and reported.
   1542751724: Upstart Job alarmMgr: started
   1542751724: Upstart Job tpdProvd: started
   1542751724: Upstart Job syscheck: started
   1542751725: Upstart Job ntdMgr: started

14. **MPS B:** log in as "admusr" user.

   
   ```
   [hostname] consolelogin: admusr
   password: password
   ```

15. **MPS 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.

   ```
   $ grep -i error /var/TKLC/log/upgrade/upgrade.log
   ```

   Check the output of the upgrade log, Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix G, if the output contains any errors beside the following:

   1542696235::Bringing up interface bond0: /etc/sysconfig/network-scripts/ifup-eth: line 141: echo: write error: Permission denied
   1542696235::error in ifcfg-bond0:1: didn't specify device or ipaddr
   1542696235::error in ifcfg-bond0:2: already seen ipaddr in ifcfg-bond0:1.

   ```
   $ grep -i warning /var/TKLC/log/upgrade/upgrade.log
   ```

   Examine the output of the above command to determine if any warnings were reported.

   Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix G, if the output contains any warnings beside the following:

   1542695599::WARNING: /usr/TKLC/plat/etc/alarms/alarms.xml has been updated...reparsing xml...
   1542695670::warning: era unlink of /etc/ssm/hwmgmtd.conf failed: No such file or directory
   1542695778::setup
   ```
   1542695843::WARNING: This capability is not defined in the default capabilities.
   1542695843::WARNING: Nor is it defined in the current hardware IDs capabilities.
   ```
Procedure 49: Install the Application on Node B

1542695843:: WARNING: CAPABILITY: service_hp
1542695843:: WARNING: HARDWARE ID: ESAPPB
1542695915:: WARNING: This capability is not defined in the default capabilities.
1542695916:: WARNING: This capability is not defined in the current hardware ID's capabilities.
1542695916:: WARNING: HARDWARE ID: E5APPB
1542695916:: WARNING: service__disabled
1542695916:: HARDWARE ID: E5APPB
1542696000:: cloud-init warning: /etc/cloud/cloud.cfg created as /etc/cloud/cloud.cfg.rpmnew

16. MPS B: Check that the upgrade completed successfully.

$ grep "Upgrade returned success" /var/TKLC/log/upgrade/upgrade.log

17. MPS 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 on the Appendix G.

1399367207:: Upgrade returned success!

18. MPS B: Install Complete.

Install Procedure is complete.

E.1.5 Generic Procedure

Procedure 50 ISO Image download from Oracle Software Delivery Cloud

Procedure 50: ISO Image download from OSDC

This procedure provides instructions to download an ISO image from OSDC and copy to the required 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 UPGRADE ASSISTANCE.

1. MPS X: Log in to the server as the “admusr” user.

[hostname] console login: admusr
password: <admusr_password>

2. MPS X: Verify ISO image doesn’t already exist.

Execute the following command to perform directory listing:

$ ls -alrt /var/TKLC/upgrade

The output should look like as follows (There is no ISO present in following example):

[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 ..

If an ISO image exists, remove it by executing the following command:

$ rm -f /var/TKLC/upgrade/<ISO_image>

3. Download the ISO image from OSDC.

Download the ISO image from OSDC (Oracle Software Delivery Cloud).

4. Copy the ISO from source path to destination path.

NOTE: Skip this step if same ISO is already present on destination folder.
Procedure 50: ISO Image download from OSDC

Copy the ISO image from source path to destination path using scp/ftp command.

Execute the following command on destination server:

```
$ sudo scp <source_username>@<source_server_IP>/:<source_path>/xyz.iso /var/TKLC/upgrade
```

Password: <enter source userpassword>

OR,

Execute the following command on source server:

```
$ scp /<source_path>/<xyz.iso> admusr@<destination_server_IP>/:/var/TKLC/upgrade
```

Password: <Enter admusr password>

5. MPS X: Verify ISO image copied on destination path.

Execute the following command to perform directory listing:

```
$ ls -alc/var/TKLC/upgrade
```

The output should look like:

```
[admusr@hostname ~]$ ls -alc/var/TKLC/upgrade
total 684816
```

```
drwxr-xr-x.  2 root sys 4096 Mar 20 2018 patch
```

```
drwxrwxr-x.  3 root admgrp 4096 Jun 15 18:09 .
```

```
-rw-r-----   1 root root 701235200 Nov 21 18:12 EEDB-46.7.0.0.0_75.24.0-x86_64.iso
```

```
dr-xr-xr-x. 21 root root 4096 Nov 21 18:37 ..
```

Repeat this procedure from step 1 if EEDB ISO file is not as expected.


Validate ISO file using Procedure 51.

7. Procedure complete.

This procedure is complete.

---

**Procedure 51 Validate Upgrade Media**

This procedure is used to execute a validation of the Upgrade Media (typically an ISO image) separately from executing an upgrade. The upgrade process automatically validates the upgrade media. However, sometime the user may wish to perform just a validation before proceeding with upgrade, thus the reason for this separate process.

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

**Procedure 51: Validate the Upgrade Media**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>MPS X: If necessary, log in to the server as the user “admusr”.</td>
</tr>
<tr>
<td></td>
<td>If not already logged in to the MPS server, then login as user “admusr”.</td>
</tr>
<tr>
<td></td>
<td><code>&lt;hostname&gt; console login: admusr password: &lt;password&gt;</code></td>
</tr>
</tbody>
</table>
Procedure 51: Validate the Upgrade Media

2. MPS X: Execute the platcfg menu.

```bash
$ sudo su - platcfg
```

3. MPS X: Select the Maintenance submenu.

   The platcfg Main Menu appears. On the Main Menu, select Maintenance and press [ENTER].

4. MPS X: Select the Upgrade submenu.

   Select the Upgrade menu and press [ENTER].

5. MPS X: Select the Validate Media selection.

   Select the Validate Media menu and press [ENTER].

6. MPS X: Output from the Validate Media selection.

   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.

   If the upgrade media is not found, follow Procedure 50 to copy the upgrade ISO.
   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 on the Appendix G.
Procedure 51: Validate the Upgrade Media

7. **MPS X:** View the Validation results.

   The results of the validation will be displayed, similar to the example below. Press the “enter” key to continue.

   ![Validation results example]

   INVET Validate Utility v2.3.4, (c)Tekelec, May 2014
   Validating /var/TKLC/upgrade/EEDB-46.7.0.0.0_75.24.0-x66_64.iso
   Date&Time: 2019-11-29 11:24:50
   Volume ID: 46.7.0.0.0_75.24.0
   Part Number: N/A
   Version: 46.7.0.0.0_75.24.0
   Disc Label: EEDB
   Disc description: EEDB
   The media validation is complete, the result is: PASS
   CDROM is Valid
   PRESS ANY KEY TO RETURN TO THE PLATCFG MENU.

8. **MPS X:** Select the Exit option.

   Select the Exit option, and keep selecting the Exit option, until you reach the command line prompt or you return to another menu that you wish to use.

9. **MPS X:** Procedure complete.

   Media Validation is complete. Return to the procedure that you came here from.

Procedure 52  IPM MPS Server with TPD 7.6.X

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

**Procedure 52: IPM with TPD 7.6.x**

- **STEP #1:** This procedure will IPM the E5-APP-B 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 UPGRADE ASSISTANCE.

- **STEP #2:** MPS X: Insert TPD 7.6.x USB media into the USB port (E5-APP-B).

  Note: Refer Procedure 55 to copy the ISO in USB.

  Reboot server

  # reboot
Procedure 52: IPM with TPD 7.6.x

2. MPS X: 
Press ‘del’ key to enter the BIOS, set System Time to GMT time, and System Date.

3. MPS X: 
Select Boot → Hard Disk Drives option

4. MPS X: 
Press ‘Enter’ key and select USB as the 1st Drive
Procedure 52: IPM with TPD 7.6.x

5. MPS X:
   Press ‘Esc’ key and select Boot Device Priority

6. MPS X:
   Verify that the 1st Boot Device is set to USB.
Procedure 52: IPM with TPD 7.6.x

7. **MPS X:**
   - Press ‘Esc’ key and select **Exit → Save Changes and Exit option**

8. **MPS X:**
   - Select [OK] to save the configuration changes.
   - The server will reboot and TPD boot prompt will appear.
Procedure 52: IPM with TPD 7.6.x

9. **MPS X:**
   Start the IPM process by entering the TPDlvm command at the boot prompt.

10. **MPS X:**
    After a few seconds, additional messages will begin scrolling by on the screen as the Linux kernel boots, and then the drive formatting and file system creation steps will begin.
Procedure 52: IPM with TPD 7.6.x

11. MPS X:
   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.

12. MPS X:
Procedure 52: IPM with TPD 7.6.x

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.

13. MPS X:
Once all the packages have been successfully installed, the screen at right will appear letting you know the installation process is complete.

On E5-APP-B server remove the installation media (USB) and press <ENTER> to reboot the system and continue with the next step.

14. MPS X:
Press `del` key to enter the BIOS, set correct System Time in GMT and System Date.
### Procedure 52: IPM with TPD 7.6.x

| 15. | MPS X: Select Boot → Hard Disk Drives option |
|     | ![Image of boot settings](image1.png) |

| 16. | MPS X: Press 'Enter' key and select HDD:P0 as the 1st Drive |
|     | ![Image of boot priority](image2.png) |

| 17. | MPS X: Press 'Esc' key and select Boot Device Priority |
|     | ![Image of boot priority settings](image3.png) |
### Procedure 52: IPM with TPD 7.6.x

18. **MPS X:**
   - Verify that the 1st Boot Device is set to HDD:P0.

19. **MPS X:**
   - Press ‘Esc’ key and select **Exit ➔ Save Changes and Exit** option
Procedure 52: IPM with TPD 7.6.x

20. **MPS X:**
Select [OK] to save the configuration changes. The server will reboot.

Remove USB media from USB drive.

When the message "Upstart Job ntdMgr: started", is displayed, press the Enter Key to get the Login prompt.

21. **MPS X:** Log in to the server as the user “admusr”

   `console login: admusr
   password: <admusr_password>

22. **MPS X:** Verify that the platform revision is same as the TPD DVD or ISO used.

   `$ get PlatRev
   7.6.x.0.0-y.z.0`
Procedure 52: IPM with TPD 7.6.x

23. **MPS X:**
   
   Verify the system date.

   `$ date -u`

   **Wed Mar 21 11:04:54 UTC 2018**

   Verify that the output time matches the time set in step 14. If mismatch is found, then Refer to Appendix G for instructions on accessing My Oracle Support.

24. **Procedure complete.**

   Return to the procedure that you came here from.

---

**Procedure 53  Perform System Health Check**

Procedure 53: Perform System Health Check

1. **MPS X:** If necessary, log in to the server as the user “admusr”.

   `<hostname> console login: admusr password: <password>`

2. **MPS X:** Execute the `platcfg` menu.

   `$ sudo su - platcfg`

3. **MPS X:** Select the Diagnostics submenu.

   The `platcfg` Main Menu appears.

   On the **Main Menu**, select **Diagnostics** and press [ENTER].

   ![Main Menu]

   - Maintenance
   - Diagnostics
   - Server Configuration
   - Security
   - Remote Consoles
   - Network Configuration
   - Exit

4. **Select the Online Diagnostics submenu.**

   Select the **Online Diagnostics** submenu and press [ENTER].
### Procedure 53: Perform System Health Check

<table>
<thead>
<tr>
<th>5.</th>
<th>Select the Non-Verbose option.</th>
<th>Select the <strong>Non-Verbose</strong> option and press [ENTER].</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>6.</th>
<th>Examine the output of the Online Diagnostics</th>
<th>Example output shown below. Examine the actual output of the Online Diagnostics.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>7.</th>
<th>System Check Successful.</th>
<th>Exit from the above menu. If the System Check was successful, return to the procedure that you came here from.</th>
</tr>
</thead>
</table>

If the “Server Disk Space Shortage Error” was there in the output, proceed to step 8 to clean up the ‘/’ directory.

If any other failures were detected by System Check, contact My Oracle Support following the instructions on the front page or the instructions on the Appendix G.

| 8. | Server clean-up to create space. | Execute the following command: 

\$ df -h /var/TKLC  
The output may look like: |
|----|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
Procedure 53: Perform System Health Check

```bash
[admusr@hostname ~]$ df -h /var/TKLC
Filesystem Size Used Avail Use% Mounted on
/dev/mapper/vgroot-plat_var_tklc 3.9G 2.2G 1.5G 60% /var/TKLC
```

Verify that there is at least 600M in the Avail column. If not, clean up files until there is space available.

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.

Also, execute the following command to check space in ‘/lib/module’ directory.

```bash
$ df -h /lib/modules
[admusr@hostname ~]$ df -h /lib/modules
Filesystem Size Used Avail Use% Mounted on
/dev/mapper/vgroot-plat_root 976M 397M 529M 43% /
```

Verify that the Use% column does not exceed the value 80%.

9. **MPS X**: Procedure complete.

Media Validation is complete. Return to the procedure that you came here from.

---

**Procedure 54 Configure Network Interface using platcfg utility**

**Procedure 54: Configure Network Interface using platcfg utility**

This procedure configures the network interfaces and makes the E5APPB servers accessible to the network.

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 UPGRADE ASSISTANCE.

1. **MPS X**: If necessary, log in to the server as the user “admusr”.
   
   If not already logged in to the MPS server, then login as user “admusr”.
   
   `<hostname> console login: admusr
   password: <password>`

2. **MPS X**: Execute the platcfg menu.
   
   `$ sudo su - platcfg`

3. **MPS X**: Configure Network Interface.
Procedure 54: Configure Network Interface using platcfg utility

Network Configuration Menu
- SNMP Configuration
- Network Interfaces
- Routing
- Configure Network
- Network Bridges
- Iptables
- IPSec Configuration
- Resolv
- Stunnel
- Modify Hosts File
- Configure Switch
- Exit

Network Interfaces Menu
- Add an Interface
- Edit an Interface
- Delete an Interface
- Exit

Connection to edit Menu
- eth01
- eth02
- eth03
- eth04
- Exit

Options
- Edit
- Exit
Procedure 54: Configure Network Interface using platcfg utility

4. Select the Interface option.

- **Interface Options**
  
  MTU:  
  (*) on
  (*) off
  (*) <undefined>

  GRC:  
  (*) off
  (*) on

  GSO:  
  (*) off
  (*) <undefined>

  BootProto:  
  (*) none
  (*) dhcp

- **Configure Ethtool Options**
  
  Would you like to configure Ethtool Options?

  - No
  - Yes

- **Configure IP Address**
  
  Would you like to configure IP addresses?

  - No
  - Yes

- **Choose IP Address Version Menu**

  - ❌ IPv4
  - ❌ IPv6
  - ❌ Exit
Procedure 54: Configure Network Interface using platcfg utility

5. Input the IP Address and Netmask.

Select “Exit” until you reach the network configuration menu.
Procedure 54: Configure Network Interface using platcfg utility

6. Configure Default Route.

- Network Configuration Menu
  - SNMP Configuration
  - Network Interfaces
  - Network Bridges
  - Configure Network
  - Routing
  - NTP
  - Iptables
  - IFSEC Configuration
  - Resolv
  - Stunnel
  - Modify Hosts File
  - Configure Switch
  - Exit

- IP Version Menu
  - IPv4
  - IPv6
  - Exit

- IPv4 Static Routes

<table>
<thead>
<tr>
<th>Interface</th>
<th>Type</th>
<th>Address</th>
<th>Netmask</th>
<th>Gateway</th>
</tr>
</thead>
<tbody>
<tr>
<td>eth01</td>
<td>default</td>
<td>default</td>
<td></td>
<td>10.250.51.1</td>
</tr>
</tbody>
</table>

- Edit
- Exit
Procedure 54: Configure Network Interface using platcfg utility

IPv4 Route Action Menu

Add Route
Edit Route
Delete Route
Policy Based Routing
Exit

Add Route

Type:
(*) default
() net
() host

Device:
(*) eth01
() eth02
() eth03
() eth04
() lo:1
Gateway: 10.250.51.1

OK
Cancel

OK
Cancel
Procedure 54: Configure Network Interface using platcfg utility

Select “Exit” until you exit from the platcfg utility.

7. Procedure complete.

 Procedure 55 Copy ISO image in USB

Procedure 55: ISO Image download from OSDC

This procedure provides instructions to copy an ISO to USB.

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 UPGRADE ASSISTANCE.

1. MPS X: Log in to the server as the “admusr” user.

    [hostname] console login: admusr
    password: <admusr_password>

2. MPS X: Verify ISO image present at directory.

    Execute the following command to perform directory listing:
    $ cd /var/TKLC/upgrade
    $ ls -alrt

    The output should look like as follows (There is no ISO present in following example):
    
    [admusr@waffle-a upgrade]$ ls -alrt
    total 695312
    drwxr-xr-x. 2 root sys 4096 Mar 20 2018 patch
    dr-xr-xr-x. 21 root root 4096 Nov 20 02:57 ..
    -r--r-----   1 root root   711983104 Dec  5 12:25 TPD.install-7.6.0.0.0_88.54.0-OracleLinux6.9-x86_64.iso
    drwxrwxr-x. 3 root admgrp 4096 Dec  5 12:26

3. MPS X: Copy ISO to the USB.

    $ sudo dd if=/var/TKLC/upgrade/TPD.install-7.6.0.0.0_88.54.0-OracleLinux6.9-x86_64.iso of=/dev/sdc

    1390592+0 records in
    1390592+0 records out
    711983104 bytes (712 MB) copied, 111.797 s, 6.4 MB/s

4. Procedure complete.

This procedure is complete.
APPENDIX F. 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 fax this page and the above completed matrix to Oracle CGBU, My Oracle Support web portal (https://support.oracle.com).

Customer: Company Name: ___________________________________________ Date: __________

Site: Location: ______________________________________________________
[Include serial number, which was recorded in Procedure 1, Step15.]

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 CGBU and the customer representative. A copy of this page will 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: _________________

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APPENDIX G. MY ORACLE SUPPORT


Before upgrading your system, access the My Oracle Support web portal (https://support.oracle.com) and review any Knowledge Alerts that may be related to the System Health Check or the Upgrade.

Before beginning this procedure, contact My Oracle Support and inform them of your upgrade plans. If installing for an Oracle customer on a customer site, obtain the customer's Support Identifier (SI) before requesting assistance.

Web portal (preferred option): My Oracle Support (MOS) (https://support.oracle.com/)

Phone: Contact your local Oracle Global Customer Support Center (http://www.oracle.com/support/contact.html)

Make the following selections on the Support telephone menu:

1. Select ‘2’ for New Service Request
2. Select ‘3’ for Hardware, Networking and Solaris Operating System Support
3. Select ‘1’ for Technical Issues and when talking to the agent, please indicate that you are an existing Oracle customer