Oracle® Communications EAGLE

Software Upgrade Guide

Release 48.0

G45524-02

December 2025

ORACLE®

Oracle Communications EAGLE Software Upgrade Guide, Release 48.0

Copyright © 1993, 2025 Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notices are applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are “commercial computer software” pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to thirdparty content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

CAUTION: Use only the 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 I for instructions on accessing My Oracle Support.

What's New in This Guide

Release 48.0 – G45524-02, December 2025

- Updated Table 24.

Release 48.0 – G45524-01, December 2025

- Added Procedure 19 to force a cold restart of the IPSM card during an upgrade.
- Added Step 7 to force a cold restart of the IPSM card in Procedure 35, Fall Back Procedure for Network Cards.

TABLE OF CONTENTS

1. Introduction 9

1.1 Purpose and Scope 9

1.2 References 9

1.2.1 External 9

1.2.2 Internal 9

1.3 Software Release Numbering 10

1.4 Database Version Number 10

1.5 Acronyms and Terminology 10

1.6 Recommendations 12

2. General Description 13

3. Upgrade Overview 15

3.1 Required Materials 15

3.2 Upgrade Preparation Overview 16

3.3 Pre-Upgrade Overview 16

3.4 Upgrade Execution Overview 17

3.5 Backout Procedure Overview 18

4. Upgrade Preparation 19

4.1 Hardware Upgrade Preparation 19

4.2 Software Upgrade Preparation 20

5. Software Upgrade Procedure 21

5.1 Software Upgrade Execution – Session 1 22

5.2 OAM Conversion 38

5.3 Completion of Session 1 43

5.4 Upgrade Session 2 44

6. Recovery procedures 81

6.1 Backout Setup Procedures 81

6.2 Revert MASP, MCPM and IPSM to VxWorks6.4 81

6.3 Recovery Procedure A 92

6.4 Recovery Procedure B 94

6.5 Recovery Procedure C 113

7. Procedures for cards that failed to complete successful flash during the database conversion 115

Appendix A. Upgrading flash-based GPL on non-in-service and unprovisioned network cards 121

Appendix B. Preparations for Upgrade Execution 126

B.1 Target Release Software Download 126

B.2 Configuring Card-Set Network Conversion Method. 136

Appendix C. Entering upgrade software access key 142

Appendix D. Supplemental information for Procedure 8, Step 2 143

D.1 Samples of message from convertstp action for act-upgrade command 143

D.2 Determination and Recovery of DDL Hunt during Upgrade 145

Appendix E. EEDB Installation 148

E.1 Upgrade Overview 148

E.1.1 Required Materials 148

E.1.2 Installation Phases 14949

E.1.3 Upgrade Preparation 1500

Note: For the complete list of cards supported by EAGLE Release 47.0, see Hardware Reference Guide. 1511

Procedure 44 Pre-upgrade requirements 151

E.1.4 Software Installation Procedures 1511

Procedure 45 Create Configuration file on Node A ..... Error! Bookmark not defined.0

Procedure 46 Create Configuration file on Node B 1521

Procedure 47 Pre-Install Configuration on Node A ..... Error! Bookmark not defined.1

Procedure 48 Pre-Install Configuration on Node B 1572

Procedure 49 Install Application on Node A ..... Error! Bookmark not defined.53

Procedure 50 Install Application on Node B 16457

E.1.5 Generic Procedure 168

Procedure 51 ISO Image download from Oracle Software Delivery Cloud 1681

Procedure 52 Validate Upgrade Media 16964

Procedure 53 IPM MPS Server with TPD 7.6.X 17168

Procedure 54 Perform System Health Check 18169

Procedure 55 Configure Network Interface using platcfg utility 18371

Procedure 56 Copy ISO image in USB 18981

Appendix F. Upgrading Source Release 46.5.1.10.0 to Target Release 46.5.1.20.0 (46.9.1.20.0) 1900

Appendix G. Migrate to VxWorks6.9 1933

Appendix H. Customer Sign OFF 2133
Appendix I. My Oracle Support 2144

List of Figures

Figure 1 - Upgrade Process 13
Figure 2: Initial EEDB Application Installation Path 148

List of Tables

Table 1. Acronyms 10
Table 2. Terminology 11
Table 3. Generic VS. E5-OAM Terminology 11
Table 4. Upgrade Tasks to be completed 13
Table 5. Phases of Upgrade Execution 14
Table 6. Upgrade Readiness Activities 16
Table 7. Pre-Upgrade Execution Activities 17
Table 8. Upgrade Execution Overview 17
Table 9. Post Upgrade Overview 18
Table 10. Backout Procedure Overview 18
Table 11. Equipment Inventory before Upgrade if media software delivery (MSD) 19
Table 12. Equipment Inventory before Upgrade if server software delivery (SSD) 19
Table 13. Spare Equipment after Upgrade if media software delivery (MSD) 19
Table 14. Spare Equipment after Upgrade if server software delivery (SSD) 20
Table 15. Pre-Upgrade Requirements 22
Table 16. DDL-Hunt-related UAM ranges. 26
Table 17. Retrieve Log Termination Pass/Fail Criteria: 26
Table 18. Act Upgrade Command Actions 39
Table 19. Upgrade Session 2 Requirements 44
Table 20. MTT errors generated when measurement collection is in progress. 46
Table 21. Recovery from DDL Hunt by UAM. 145
Table 22: EEDB System Configuration Information 148
Table 23. EEDB User Password Table 149
Table 24. Installation Phases for EEDB 149

List of Procedures

Procedure 1: Verifying Pre-Upgrade Requirements and Capturing Upgrade Data 22
Procedure 2: Backing Up the Database 27
Procedure 3: Updating the Source-Release Spare Fixed Disk 29
Procedure 4: Verifying All Databases 31
Procedure 5: Initializing MASPs to Run on Target-Release GPLs 32
Procedure 6: Verifying the Target Release and Software Access Key 37
Procedure 7: Verifying all Databases 38
Procedure 8: STP Conversion 39
Procedure 9. Verifying Upgrade Session 2 Requirements 44
Procedure 10: Upgrading Removable medias 45
Procedure 11: Backing Up Fixed Disk 48
Procedure 12: Migrate the ATMITU or ATMANSI (E5-ATM-B) Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL 49
Procedure 13: Migrate the E5-E1T1-B Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL 52
Procedure 14: CCS7ITU or SS7ANSI Application is Provisioned on SLIC Card, Migrate the Same to VxWorks6.9 55
Procedure 15: Migrate the E5ENET EPMB Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL 58
Procedure 16: IPSG Application is Provisioned on SLIC Card, Migrate the Same to VxWorks6.9 61
Procedure 17: Migrate the STC E5-EPMB Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL 64
Procedure 18: ERTHC Application is Provisioned on SLIC Card, Migrate the Same to VxWorks6.9 67
Procedure 19: Force cold restart of IPS card during upgrade 69
Procedure 20: Verify the latest boot loader on card and update if older. 70
Procedure 21: Upgrading Spare MASPs 71
Procedure 22: Upgrading Spare HIPR2 cards 75
Procedure 23: Verifying All Databases 79
Procedure 24: Session 2 Completion 80
Procedure 25: Revert IPS (ENET-B) cards on VxWorks6.4 81
Procedure 26: Revert IPSM application running on SLIC to VxWorks6.4 83
Procedure 27: Revert MCPM cards on VxWorks6.4 85
Procedure 28: Revert MCPM application running on SLIC card to VxWorks6.4 87
Procedure 29: Revert the MASP card to VxWorks6.4 89
Procedure 30: Load and Run Source OAM 92
Procedure 31: Full Fallback using Spare E5-MASP 94
Procedure 32: Full Fallback using Fixed Disk as OAM conversion workspace – Case 1 100
Procedure 33: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2 101
Procedure 34: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3 106
Procedure 35: Fall Back Procedure for Network Cards 113
Procedure 36: Restoring Flash-Based Service Cards 115
Procedure 37: Restoring Flash-Based Link Cards 117
Procedure 38: Restoring Mux Cards 119
Procedure 39: Flashing Inactive Cards 121
Procedure 40: Flashing the E5-MASP to BLDC32 for Release 47.0.0.0 122

Procedure 41: Download Target Software Release and Create USB Upgrade Media 126
Procedure 42: Download Target Release to Inactive Partition 130
Procedure 43: Preparation for Upgrade to use the Card-Set Network Conversion Method. 136
Procedure 44: Validate Upgrade Software Access Key 142
Procedure 45: Setting up the upgrade environment for EEDB 150
Procedure 46: Verify the Pre-Upgrade Requirements 151
Procedure 47: Create Configuration file on Node A 151
Procedure 48: Create Configuration file on Node B 152
Procedure 49: Pre-Install Configuration on Node A 153
Procedure 50: Pre-Install Configuration on Node B 157
Procedure 51: Install the Application on Node A 161
Procedure 52: Install the Application on Node B 164
Procedure 53: ISO Image download from OSDC 168
Procedure 54: Validate the Upgrade Media 169
Procedure 55: IPM with TPD 7.6.x 171
Procedure 56: Perform System Health Check 181
Procedure 57: Configure Network Interface using platcfg utility 183
Procedure 58: ISO Image download from OSDC 189
Procedure 59: Upgrading Source Release 46.5.1.10.0 to Target Release 46.5.1.20.0 (46.9.1.20.0) 190
Procedure 60: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL 193
Procedure 61: Migrate the MCPM cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL 196
Procedure 62: MCP application is provisioned on SLIC card, migrate the same to VxWorks6.9. 199
Procedure 63: Migrate the IPS (ENET-B) cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL 202
Procedure 64: IPS application is provisioned on SLIC card, migrate the same to VxWorks6.9 205
Procedure 65: Completing Upgrade/Return to Full-Function Mode 208
Procedure 66: Backing up Converted Database 209

1. INTRODUCTION

1.1 Purpose and Scope

This document describes methods utilized and procedures run to perform a software upgrade on any in-service EAGLE-based STP to EAGLE Software Release 47.0, 47.1, 48.0 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 complete any upgrade to Release 45.0 and beyond.

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

Note: To see the list of cards supported by EAGLE Release 48.0, see *Hardware Reference Guide.*

1.2 References

1.2.1 External

[1] *EAGLE 45.0 and above Health Check Procedure*, E54339, latest revision

[2] *EAGLE 46.8 Maintenance Manual*, F11910, 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.

[4] EAGLE Hardware Field Baseline, CGBU_ENG_24_1893, latest revision, Tekelec.

[5] *TEKELEC Acronym Guide*, CGBU_ENG_24_1732, current revision

[6] Tekelec Eagle - Eng Release Mapping web page, http://devtools.nc.tekelec.com/cgi-bin/eng_eag.cgi, Tekelec.

[7] Tekelec CSR-PR Reports By Build, http://devtools.nc.tekelec.com/cgi-bin/release_desc.cgi

[8] Tekelec Tekpedia web page, http://tekpedia.ssz.tekelec.com/tekpedia/index.php/Methods_to_correct_distributed_network_database_(DDB)_inconsistencies, Tekelec.

[9] EAGLE 45.0 Product Functional Specification PF005994, latest version, GSS Product Management.

[10] EAGLE 45.1 Product Functional Specification PF006147, latest version, GSS Product Management.

[11] EAGLE 46.0 Product Functional Specification PF006165, latest version, GSS Product Management.

[12] EAGLE 46.6 Product Functional Specification CGBU_025773, latest version, GSS Product Management.

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 I 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 I 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 and Terminology

Table 1. Acronyms

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

For additional Acronyms; refer to internal references [5] in section 1.2.2

Table 2. Terminology

Backout (abort)	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.
DDay	Date of the start of the maintenance window of the upgrade execution.
E5-OAM system	An EAGLE running with E5-MCAP & E5-MDAL cards for front-end hardware.
Fixed disk based upgrade	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.
HHour	Hour at which the system enters upgrade phase 0 during upgrade execution.
Incremental upgrade	**EAGLE:** Upgrade to a maintenance release (external customers) or upgrade to a new build (internal test labs).
Intra-release upgrade	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.
Intrusive Operation	Operation that impacts the redundancy of the system by isolation of the duplicate component.
Legacy system	An EAGLE running with GPSMII, TDM, & MDAL cards for front-end hardware. This hardware is obsolete beginning in Release 45.0.
Non-intrusive Operation	Operation that collects data and does not impact the redundancy of the system.
Non-preserving upgrade	"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.
Rollback	The process to take a system from a Target Release back to a Source Release including preservation of databases and system configuration.
Session 0	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.
Source release	Software release from which the system is upgraded.
Target release	Software release to which the system is upgraded.
Upgrade Media	The USB thumb drives for E5-MCAP systems.

Table 3. Generic VS. E5-OAM Terminology

Generic Term	E5-OAM Term
Drive Slot	Thumb Drive on the E5-MCAP
Fixed Disk	Sata Drive
MASP	E5-MCAP
Removable media	Removable media
RMD	USB Thumb Drive
Upgrade media	USB Thumb Drive

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:ACTION=CONVERTSTP:SRC=FIXED
```

   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 I 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:DISPLAY=ALL
   REPT-STAT-CARD
   REPT-STAT-SLK
   REPT-STAT-TRBL
   RTRV-TRBL:NUM=25:LOC=<1113|1115>
   RTRV-STP
   ACT-UPGRADE:ACTION=DBSTATUS
   ```

8. Remove all the non-provisioned cards from the system prior to upgrade.

2. GENERAL DESCRIPTION

This document defines the step-by-step actions performed to complete 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

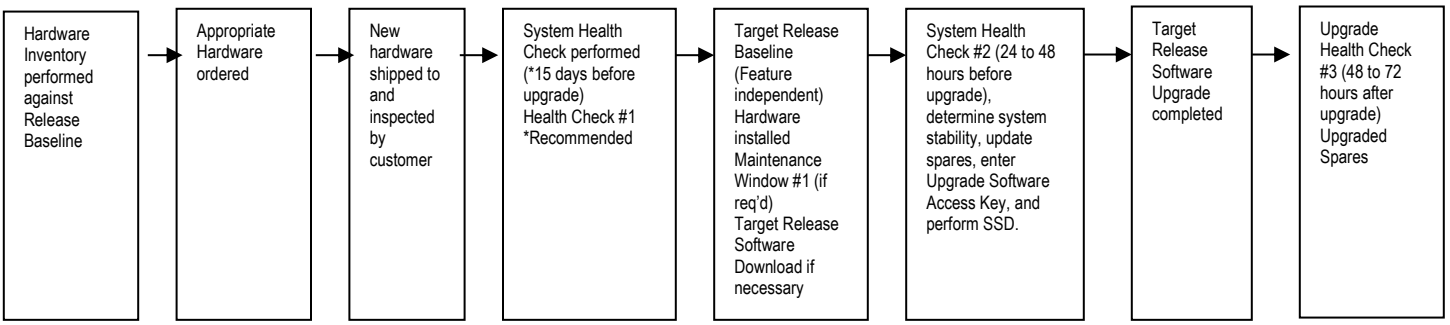


Table 4 contains a checklist of the steps required to successfully complete the upgrade process.

Upgrade Process Task	Date completed	Reference
Hardware Inventory		
Hardware Ordered		
New Hardware received		
System Health Check #1 performed.		[1]
System Health Check #1 output verified		
Target Release Baseline Hardware installed		
Target Software Release download (via Electronic Software Distribution or Upgrade Media).		[Appendix B.1.]
System Health Check #2 performed.		[1]
Enter Upgrade Software Access Key		[Appendix C]
Configure Network Conversion Method.		[Appendix B.2]
System Health Check #2 verified		
Software Upgrade Session 1 completed		
Health Check #3 performed.		[1]
Software Upgrade Session 2 completed		

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

Release Displayed	Phase Indicator[1]	Conversion	Software Running	Database Configuration
Source			Source	Source
Source	Phase 0	Database	Target	Source
Target	Phase 2	Database	Target	Target
Target	Phase 3	Network	Target	Target
Target			Target	Target

[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 completed 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 I 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.)
8. The Rollback Source Release GPL RMD. For more information about downloading the rollback source release GPL, see Target Release Software Download

The following table lists the source release and the respective OAMHC69 GPL version to be used for the rollback to the source release:

Source Release	OAMHC69 GPL Version
46.6.0.0.0-73.18.0	45.18.0
46.6.2.0.0-73.26.0	45.26.0
46.6.3.0.0-73.28.1	45.28.0
46.6.4.0.0-73.30.0	45.30.0
46.6.5.0.0-73.31.1	45.31.0
46.7.0.0.0-75.27.0	45.27.0
46.7.1.0.0-75.29.0	45.29.0
46.7.2.0.0-75.30.0	45.30.0
46.7.4.0.0-75.32.1	45.32.0
46.7.5.0.0-75.36.0	45.36.0
46.7.5.1.0-75.36.33	45.36.33
46.7.6.0.0-75.37.0	45.37.0
46.7.7.0.0-75.38.0	45.38.0
46.8.0.0.0-75.18.17	45.18.17
46.8.1.0.0-75.18.18	45.18.18
46.8.2.0.0-75.18.19	45.18.19
46.9.0.0.0-76.28.0	45.28.0
46.9.1.0.0-76.39.0	45.39.0
46.9.2.0.0-76.41.0	45.41.0

46.9.3.0.0-76.45.0	45.45.0
46.9.4.0.0-76.47.0	45.47.0
46.9.5.0.0-76.48.0	45.48.0
46.9.1.20.0-77.5.11	45.5.11
47.0.0.0.0-79.13.0	45.13.0
47.0.0.1.0-79.13.19	45.13.19

Note: After upgrade completion, the DB level must not be changed on the destination release. If the DB level is changed, then the MTP cards will not be able to crossload the DDB from other network cards because of the difference in the DB level and the cards get stuck in the DDL_HUNT state. This causes the rollback failures.

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 completed in. A day is equivalent to the period of time between scheduled maintenance windows.

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

Table 6. Upgrade Readiness Activities

3.3 Pre-Upgrade Overview

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

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

Table 7. Pre-Upgrade Execution Activities

3.4 Upgrade Execution Overview

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

Session / Phase	Time Frame	Activity	Impact
Pre-Phase 0	Hhour	Retrieve measurements data reports	Non-intrusive
Phase 0	Hhour	Initializing Front-End to Run in the Target Release.	Intrusive
Phase 0	Hhour	Verifying all Databases	Non-intrusive
Phase 0 & 2	Hhour	OAM Conversion	Intrusive
Phase 3	Hhour	Network Conversion	Intrusive

Table 8. Upgrade Execution Overview

The procedures, shown in Table 9. Post Upgrade Overview

, are completed in the maintenance window.

Session / Phase	Time Frame	Activity	Impact
Phase 3	Hhour + 3	Completing Upgrade/Return to Full Function Mode.	Non-intrusive
Post-upgrade	Hhour + 3	Backing Up Converted Database	Intrusive
Post-upgrade	Hhour + 3	Flashing Cards	Intrusive
Session 2	Dday + 2	Upgrading Removable Media	Non-intrusive
Session 2	Dday + 2	Backing Up Fixed Disk	Non-intrusive
Session 2	Dday + 2	Upgrade Spare Fixed Disk.	Intrusive
Session 2	Dday + 2	Verifying All Databases.	Non-intrusive

Table 9. Post Upgrade Overview

3.5 Backout Procedure Overview

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

Session / Phase	Time Frame	Activity	Impact
Phase 0 - 3	Hhour	Load and Run Source OAM	Non-intrusive
Phase 0 - 3	Hhour	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	Intrusive
Phase 0 - 3	Hhour	Network Conversion to Source Release	Intrusive

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 Target Release Software Download 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)

Equipment	In-service	Spare	Upgrade	Totals
Source-release fixed drives	2	1	0	3
Source-release removable media	1	0	0	1
Target-release fixed drives	0	0	0	0
Target-release upgrade media	0	0	1	1

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

Equipment	In-service	Spare	Upgrade	Totals
Source-release fixed drives	2	1	0	3
Source-release removable media	2	0	0	2
Target-release fixed drives	0	0	0	0
Target-release upgrade media	0	0	0	0

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)

Equipment	In-service	Spare	Upgrade	Totals
Source-release fixed drives	0	0	1	1
Source-release removable media	0	0	1	1
Target-release fixed drives	2	0	0	2
Target-release upgrade media	1	0	0	1

Table 14. Spare Equipment after Upgrade if server software delivery (SSD)

Equipment	In-service	Spare	Upgrade	Totals
Source-release fixed drives	0	0	1	1
Source-release removable media	0	0	1	1
Target-release fixed drives	2	0	0	2
Target-release upgrade media	1	0	0	1

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 neccessay 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.

Note: All upgrades from Eagle Release 46.9.0.0.0-76.28.0 to Release 46.9.1 or 46.9.2 would be intra-release upgrade due to addition of new GPLs.

5. Software Upgrade Procedure

Call the Oracle support hotlines [see Appendix I] 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 I]. 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. The sequence of upgrade is such that cards providing support services to other cards will be upgraded first.

Note: EAGLE Release 47.0 does not support the DEIR feature. Therefore, do not upgrade to EAGLE 47.0 in case you are using this functionality. The DEIR support is going to be available in future releases.

****** WARNING *******

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

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

S T E P #	This procedure verifies that all pre-upgrade requirements have been met. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact the Oracle support hotlines [see Appendix I] AND **ASK FOR UPGRADE ASSISTANCE.**	
1 ☐	Complete pre-upgrade tasks	`All tasks in Table 15 must be completed before continuing.`

Table 15. Pre-Upgrade Requirements

√	Tasks to be completed prior to upgrade execution
	Perform hardware inventory.
	Verify that all target-release baseline hardware has been installed. And any obsolete hardware has been replaced.
	Verify that a full complement of EAGLE® spares is available, including a source-release fixed disk. **Note**: This fixed disk's database should have been repaired in Upgrade Health Check [1].
	Verify that you have at least one source-release RMD with an up-to-date database. **Note**: This drive's database should have been backed up in Upgrade Health Check [1].
	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)
	Verify that you have a copy of the Target Release's System Release Notes (see section 1.3.)
	Verify that an EAGLE system health check has been performed and the output capture file has been validated by My Oracle Support.
	Verify all the network cards are on latest bootloaders (see Procedure 20).
	Perform upgrade time calculations to ensure that the upgrade can be completed within the window.
	Collect all measurement reports.
	Verify that all required documentation is included in the upgrade kit. [See section 4.2]
	Collect the list of cards on VxWorks 6.4

2 ☐	Issue the command to display terminal status.	`rtrv-trm`

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

3 ☐

Response to retrieve terminal command is displayed.

Record the terminals in the TRM column that have TYPE of PRINTER[2]. Also record the terminal being used to enter commands (the user terminal)[3] Or terminals used by external applications that issue commands to the EAGLE. In this example, terminal 12 is a printer, terminal 10 is the user terminal, and terminal 2 is KSR.

☐ Capture _____[2]

_____

☐ USER _____[3]

☐ Ext. Application: _____[4]

☐ **See recommendation #1 & #6 in section 1.6**

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

☐ Record the initial output group configurations for the user's and capture terminals. Also, record the user's TMOUT value.

```
     eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
     rtrv-trm
     Command entered at terminal #10.
;
     eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
     TRM  TYPE     COMM         FC     TMOUT MXINV DURAL
     1    OAP     19200 -7-E-1 SW     30    5     00:01:00
     2    KSR      9600 -7-E-1 SW     30    5     00:01:00
     3    NONE     9600 -7-E-1 SW     30    5     00:01:00
     4    NONE     9600 -7-E-1 SW     30    5     00:01:00
     5    NONE     9600 -7-E-1 SW     30    5     00:01:00
     6    NONE     9600 -7-E-1 SW     30    5     00:01:00
     7    NONE     9600 -7-E-1 SW     30    5     00:01:00
     8    NONE     9600 -7-E-1 SW     30    5     00:01:00
     9    OAP     19200 -7-E-1 SW     30    5     00:01:00
     10   KSR      9600 -7-E-1 SW     30    5     00:01:00
     11   NONE     9600 -7-E-1 SW     30    5     00:01:00
     12   PRINTER  9600 -7-E-1 SW     30    5     00:01:00
     13   VT320    9600 -7-E-1 SW     30    5     00:01:00
     14   NONE     9600 -7-E-1 SW     30    5     00:01:00
     15   NONE     9600 -7-E-1 SW     30    5     00:01:00
     16   NONE     9600 -7-E-1 SW     30    5     00:01:00

     TRM  TRAF LINK SA   SYS PU   DB
     1    YES  YES  YES  YES YES  YES
     2    NO   NO   NO   NO  NO   NO
     3    NO   NO   NO   NO  NO   NO
     4    NO   NO   NO   NO  NO   NO
     5    NO   NO   NO   NO  NO   NO
     6    NO   NO   NO   NO  NO   NO
     7    NO   NO   NO   NO  NO   NO
     8    NO   NO   NO   NO  NO   NO
     9    YES  YES  YES  YES YES  YES
     10   YES  YES  YES  YES YES  YES
     11   NO   NO   NO   NO  NO   NO
     12   YES  YES  YES  YES YES  YES
     13   YES  YES  YES  YES YES  YES
     14   NO   NO   NO   NO  NO   NO
     15   NO   NO   NO   NO  NO   NO
     16   NO   NO   NO   NO  NO   NO
;

USER      ___  ___  ___ ___ ___ ___

      TMOUT  ___

CAP       ___  ___  ___ ___ ___ ___
```

4 ☐

Echo command input to capture terminal.

If the capture terminal is the user terminal go to step 8.

act-echo:trm=*P*

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

5 ☐

Response to activate command is displayed.

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

6 ☐

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

chg-trm:trm=*P*:all=yes[5]

(***P*** is the terminal port that is specified in step 4)

7 ☐

Response to change terminal command is displayed.

```
     eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
     chg-trm:trm=P:all=yes
     Command entered at terminal #10.
;
```

[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:all=no:sa=yes:sys=yes:db=yes:dbg=yes:card=yes:tmout=0** (Where the value of *USER* is the user terminal number shown in Step3)
9 ☐	Response to change terminal command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y 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.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y EAGLE FEATURE LIST GTT = on GWS = on NRT = off X25G = off LAN = on CRMD = off SEAS = off LFS = off MTPRS = off FAN = on DSTN5000 = off WNP = off CNCF = off TLNP = off SCCPCNV = off TCAPCNV = off IPISUP = off X252000 = off PLNP = off NCR = off ITUMTPRS = on SLSOCB = off EGTT = on VGTT = on MPC = on ITUDUPPC = on MEASPLAT = on TSCSYNC = off E5IS = off ;
12 ☐	Issue the command to display the FAK features.	**rtrv-ctrl-feat**
13 ☐	Response to retrieve command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y The following features have been permanently enabled: Feature Name Partnum Status Quantity The following features have been permanently enabled: Feature Name Partnum Status Quantity *FEATURE_A* *XXXXXXXXX* on ---- *FEATURE_B* *XXXXXXXXX* on *nn* The following features have been temporarily enabled: Feature Name Partnum Status Quantity Trial Period Left Zero entries found. The following features have expired temporary keys: 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. Record the system serial number as shown: SN: _____ Additionally, record in Appendix E. Verify the serial number is locked.	rtrv-serial-num Command entered at terminal #4. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y System serial number = nt00009999 System serial number is locked.
16 ☐	Issue the command to retrieve records from the event log.	**rtrv-log:dir=bkwd:edate=YYMMDD:etime=HHMMSS:snum=XXXX:enum=YYYY:num=NNN** (Where *YYMMDD* is today's date and *HHMMSS* is one hour ago.) (Where *XXXX*, *YYYY*, 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.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card 1113; SYS REL= 35.1.0-56.31.0; STP CLLI= tklc1190601; Timezone= EST ****06-09-19 10:49:46**** 1426.0311 DPC 012-095-015 DPC is allowed ****06-09-19 10:49:45**** 1424.0314 DPC 012-095-015 Route is allowed ****06-09-19 10:46:33**** 0667.0312 * DPC 012-095-015 DPC is restricted ****06-09-19 10:46:33**** 0665.0312 * DPC 012-095-015 DPC is restricted ****06-09-19 10:32:19**** 3100.0311 DPC 012-079-001 DPC is allowed ****06-09-19 10:32:18**** 3098.0314 DPC 012-079-001 Route is allowed ****06-09-19 10:30:41**** 2828.0312 * DPC 012-079-001 DPC is restricted ****06-09-19 10:30:41**** 2827.0316 DPC 012-079-001 Route is prohibited ****06-09-19 10:30:41**** 2825.0312 * DPC 012-086-004 DPC is restricted UAM Report terminated - max. or num= count reached END OF LOG REPORT. ;
18 ☐	Repeat steps 16-17 for all sets of UAMs listed in Table 16.	

Table 16. DDL-Hunt-related UAM ranges.

	SNUM	ENUM	NUM	UAM Text*
	Start UAM	*End UAM*	*Maximum Events*	
☐	200	200	15	RCVRY-LFK: link available
☐	236	236	15	REPT-LFK: not aligned
☐	264	275	50	REPT-LINK-CGST:congestion level *X* to *Y* RCVRY-LINK-CGST:congestion has cleared REPT-LINK-CGST:discard level *X* to *Y* RVCRY-LINK-CGST:discard has cleared
☐	311	313	50	DPC is prohibited DPC is restricted DPC is allowed
☐	314	316	50	Route is prohibited Route is restricted Route is allowed

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

Table 17. Retrieve Log Termination Pass/Fail Criteria:

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

Procedure 2: Backing Up the Database

S T E P #	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. Look in the columns labeled 'C' and 'LEVEL' output by this command. Verify entries in column 'C' show 'Y' which indicates coherence. Verify both 'FD CRNT' Levels are equal.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP - -------- -------------------- - -------- -------------------- FD BKUP Y XXXX YY-MM-DD HH:MM:SS TTTT Y XXXX YY-MM-DD HH:MM:SS TTTT FD CRNT Y XXXX Y XXXX MCAP 1113 MCAP 1115 - -------- - -------- RD BKUP Y XXXX YY-MM-DD HH:MM:SS TTTT Y XXXX YY-MM-DD HH:MM:SS TTTT USB BKP - - - - - - - - ; **chg-db:action=backup**
3 ☐	Issue the command to back up the database.	
4 ☐ ☐	Response to backup command is displayed. Command execution time: approximately 4 – 20 minutes, longer for large databases.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y 5042.1114 CARD 1115 Database BACKUP started Report Date:YY-MM-DD Time:hh:mm:ss ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y BACKUP (FIXED): MASP B - Backup starts on active MASP. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y BACKUP (FIXED): MASP B - Backup on active MASP to fixed disk complete. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y BACKUP (FIXED): MASP B - Backup starts on standby MASP. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y 5045.1116 CARD 1115 Database action ended - OK Report Date:YY-MM-DD Time:hh:mm:ss ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y BACKUP (FIXED): MASP B - Backup on standby MASP to fixed disk complete. ;
5 ☐	Insert the RMD containing the source release into the drive slot of the ACTIVE MASP card.	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.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y chg-db:action=backup:dest=remove Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y BACKUP (REMOVABLE): MASP A - Backup starts on active MASP ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y BACKUP (REMOVABLE): MASP A - Backup to removable device complete ;

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.x-YY.y.y`
		`copy-gpl`
		`Command entered at terminal #10.`
		`;`
		`eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y`
		`COPY GPL: MASP A - COPY STARTS ON ACTIVE MASP`
		`COPY GPL: MASP A - COPY TO REMOVABLE CARTRIDGE COMPLETE`
		`;`

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

11 ☐ ☐	Response to database status command is displayed.
	
	Check that all DB levels are the same.
		`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y`
		`DATABASE STATUS: >> OK <<`
		`TDM 1114 ( STDBY)  TDM 1116 ( ACTV )`
		`C LEVEL TIME LAST BACKUP  C LEVEL TIME LAST BACKUP`
		`- -------- -------------------- - -------- --------------------`
		`FD BKUP Y XXX 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 - - - - Y XXX YY-MM-DD hh:mm:ss TTTT`
		`USB BKP - - - - - - - -`

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

13 ☐ ☐	Response from the retrieve command is displayed.
	
	Verify that the GPL versions that are displayed in the "RELEASE" and "REMOVE TRIAL" column are correct; see Section 1.3
		`eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.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 ----------`
		`GGGGGG1 1113 ---------- ---------- ---------- ----------`
		`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 ----------`
		`GGGGGG2 1113 ---------- ---------- ---------- ----------`
		`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 ----------`
		`GGGGGG3 1113 ---------- ---------- ---------- ----------`
		`OAMHC 1114 XXX-XXX-XXX XXX-XXX-XXX ---------- ----------`
		`OAMHC 1116 XXX-XXX-XXX XXX-XXX-XXX ---------- ----------`
		`OAMHC 1113 ---------- ---------- ---------- ----------`
		`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 ----------`
		`GGGGGG4 1113 ---------- ---------- ---------- ----------`
		`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 ----------`
		`GGGGGG5 1113 ---------- ---------- ---------- ----------`
		`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 ----------`
		`GGGGGG6 1113 ---------- ---------- ---------- ----------`
		
		`;`

14 ☐	Remove the Source-Release RMD.	**Store the RMD in a safe location**.

Procedure 3: Updating the Source-Release Spare Fixed Disk

STEP #	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**.	
1 ☐	Issue the report card status command.	`rept-stat-card:appl=oam`

2 ☐ ☐	Response to the card status command is displayed.
	
	Record the card locations of both MASPs as well as the part number of the E5-MASP:
	
	Act E5-MASP _____
	
	p/n _____
	
	Stby E5-MASP _____
	
	p/n _____
		`CARD VERSION TYPE GPL PST SST AST`
		`1113 XXX-XXX-XXX E5MCAP OAMHC IS-NR Standby -----`
		`1115 XXX-XXX-XXX E5MCAP OAMHC IS-NR Active -----`
		
		`Command Completed.`
		`;`

3 ☐	Place spare E5-MASP in system.[6] Record the part number for the spare E5-TDM: p/n _____	☐ 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.
4 ☐	Issue the report status command for the standby MASP.	`rept-stat-card:loc=`*`xxxx:mode=full`* (Where *xxxx* is the STBY MASP slot from step 2 above)

5 ☐	Verify that the backup goes to IS-NR	`eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y`
		`CARD VERSION TYPE GPL PST SST AST`
		`xxxx xxx-xxx-xxx E5MCAP OAMHC IS-NR Standby DB-DIFF`
		`ALARM STATUS = No Alarms.`
		`BLMCAP GPL version = XXX-XXX-XXX`
		`IMT BUS A = Conn`
		`IMT BUS B = Conn`
		`MBD BIP STATUS = Valid`
		`MOTHER BOARD ID = E5-MCAP`
		`DBD STATUS = Valid`
		`DBD TYPE = 1G ENET`
		`DBD MEMORY SIZE = 4096M`
		`HW VERIFICATION CODE = ----`
		`CURRENT TEMPERATURE = 33C ( 92F)`
		`PEAK TEMPERATURE: = 37C ( 99F) [13-05-19 08:02]`
		`TROUBLE TEXT VER. = ----`
		`IPLNK STATUS`
		`IPLNK IPADDR STATUS PST`
		`A 192.168.53.89 UP IS-NR`
		`Command Completed.`
		`;`

[6] 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

6 ☐ Issue the command to retrieve GPL versions.

```
rtrv-gpl
```

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.

```
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.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  -----------
    GGGGGG1    1116  XXX-XXX-XXX  XXX-XXX-XXX ALM  XXX-XXX-XXX  -----------
    GGGGGG1    1113  -----------  -----------      -----------  -----------
    GGGGGG2    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG2    1116  XXX-XXX-XXX  XXX-XXX-XXX ALM  XXX-XXX-XXX  -----------
    GGGGGG2    1113  -----------  -----------      -----------  -----------
    GGGGGG3    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG3    1116  XXX-XXX-XXX  XXX-XXX-XXX ALM  XXX-XXX-XXX  -----------
    GGGGGG3    1113  -----------  -----------      -----------  -----------
    OAMHC      1114  XXX-XXX-XXX  XXX-XXX-XXX      -----------  -----------
    OAMHC      1116  XXX-XXX-XXX  XXX-XXX-XXX      -----------  -----------
    OAMHC      1113  -----------  -----------      -----------  -----------
    GGGGGG4    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG4    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG4    1113  -----------  -----------      -----------  -----------
    GGGGGG5    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG5    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG5    1113  -----------  -----------      -----------  -----------
    GGGGGG6    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG6    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG6    1113  -----------  -----------      -----------  -----------

;
```

8 ☐ Issue the command to repair the standby TDM's database.

```
chg-db:action=repair
```

NOTE: The system will need approximately 2 minutes after step 5 to acquire duplex mode. As a result, the system will reject the chg-db command until it is back in duplex mode.

9 ☐ Response to the repair command is displayed.

☐ Wait for the 'repair complete' message to display and the MASP returns to in-service.

```
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
    chg-db:action=repair
    Command entered at terminal #10.
;

    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
    REPAIR: MASP A - Repair starts on standby MASP.
;

    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
    REPAIR: MASP A - Repair from fixed disk complete.
;
```

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

S T E P #	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.**

1 ☐ Issue the command to display database information.

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

2 ☐ 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.

☐ If the STDBY databases are not coherent or not at the correct level, repeat Procedure 3, step 8.

☐ Verify that the MPS databases are coherent.

```
   eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
   DATABASE STATUS: >> OK <<
           TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
           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 BKP -     -         -        -         -    -         -        -

   CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   EXCEPTION
   ---------  ----  -  -  ----------  -----------------  --------------
   SS7HC      1101  Y  N  XXX         YY-MM-DD HH:MM:SS       -
   IPLHC      1103  Y  N  XXX         YY-MM-DD HH:MM:SS       -
   VSCCP      1104  Y  N  XXX         YY-MM-DD HH:MM:SS       -
   ERTHC      1105  Y  N  XXX         YY-MM-DD HH:MM:SS       -
   MCP        1107  Y  N  XXX         YY-MM-DD HH:MM:SS       -
   GLS        1108  Y  N  XXX         YY-MM-DD HH:MM:SS       -
   IPSHC      1111  Y  N  XXX         YY-MM-DD HH:MM:SS       -
   OAM-RMV    1113  -  -     -          -        -            -
   TDM-CRNT   1114  Y  N  XXX         YY-MM-DD hh:mm:ss       -
   TDM-BKUP   1114  Y  -  YYY         YY-MM-DD hh:mm:ss       -
   OAM-RMV    1115  Y  -  1           00-00-00 00:00:00  DIFF LEVEL
   OAM-USB    1115  -  -     -          -        -            -
   TDM-CRNT   1116  Y  N  XXX         YY-MM-DD hh:mm:ss       -
   TDM-BKUP   1116  Y  -  YYY         YY-MM-DD hh:mm:ss       -

                  ELAP A ( STDBY )
                   C  BIRTHDATE          LEVEL       EXCEPTION
                   -  -----------------  ----------  --------------
   RTDB            Y  YY-MM-DD hh:mm:ss     ZZZZZZZ        -
   RTDB-EAGLE         YY-MM-DD hh:mm:ss     ZZZZZZZ        -

                  ELAP B  ( ACTV )
                   C  BIRTHDATE          LEVEL       EXCEPTION
                   -  -----------------  ----------  --------------
   RTDB            Y  YY-MM-DD hh:mm:ss     ZZZZZZZ        -
   RTDB-EAGLE         YY-MM-DD hh:mm:ss     ZZZZZZZ        -

                  EAGLE RTDB REPORT
   CARD/APPL  LOC   C  BIRTHDATE          LEVEL       EXCEPTION    IN-SRVC
   ---------  ----  -  -----------------  ----------  ------------ -----------
   VSCCP      1104  Y  YY-MM-DD hh:mm:ss     ZZZZZZZ        -      DDd HHh MMm
;
```

Procedure 5: Initializing MASPs to Run on Target-Release GPLs

S T E P #	This procedure loads the target-release GPL to both MASPs. This procedure requires that both MASPs be rebooted (one at a time) and verified as running the target-release GPLs. 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 ☐	Remove the USB flash drives from E5-MASPs.	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.)
2 ☐	Inhibit the standby MASP	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the standby MASP slot recorded in Procedure 3, Step 2)
3 ☐ ☐	Response to the inhibit command is displayed Verify UAM 514 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card is inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.
4 ☐	Issue the report card status command.	rept-stat-card:appl=oam
5 ☐ ☐	Response to the card status command is displayed. Verify that standby MASP is OSS-MT-DSBLD. For this sample output, 1113 is standby and 1115 is Active.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1113 ---------- E5MCAP OAMHC OOS-MT-DSBLD Manual ----- 1115 XXX-XXX-XXX E5MCAP OAMHC IS-NR Active -----
6 ☐	Download target-release flash to the standby MASP.	**INIT-FLASH:LOC=XXXX:CODE=TRIAL** (Where ***XXXX*** is the location used in the previous command)
7 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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.x-YY.y.y FLASH Memory Download for card xxxx completed. ; 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.
8 ☐	Retrieve the GPLs running on the card location.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location used in the previous command)

Procedure 5: Initializing MASPs to Run on Target-Release GPLs

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.x-YY.y.y GPL CARD RUNNING APPROVED TRIAL OAMHC 1113 ---------- ---------- ---------- BLMCAP **YYY-YYY-YYY** ALM+ XXX-XXX-XXX **YYY-YYY-YYY** Command Completed. ;
10 ☐	Run the target-release GPL on the standby MASP	**ALW-CARD:LOC=XXXX:CODE=INACTIVEPRTN** (target release on the inactive partition) (Where *XXXX* is the location of the standby MASP used in the previous command)
11 ☐	Response to allow-card command is shown.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card has been allowed. ;
12 ☐	Retrieve status of the MASPs	**REPT-STAT-GPL:GPL=OAMHC69**
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.x-YY.y.y GPL Auditing ON GPL CARD RUNNING APPROVED TRIAL OAMHC 1113 XXX-XXX-XXX XXX-XXX-XXX OAMHC 1115 YYY-YYY-YYY XXX-XXX-XXX Command Completed. ;
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)
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.x-YY.y.y GPL Auditing ON GPL CARD RUNNING APPROVED TRIAL EOAM 1115 140-030-000 ---------- ---------- BLMCAP 140-030-000 ALM+ 138-029-000 140-030-000 Command Completed.
16 ☐	Perform an OAM role change by booting the active MASP.	**INIT-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the active MASP recorded in Procedure 3, Step 2)
17 ☐	Response to card initialization is shown.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Init Card command issued to card xxxx ;
18 ☐	Issue the command to log back in to the system.	**LOGIN:UID=*XXXXXX*** (Where ***XXXXXX*** 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[7].	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Upg Phase 0 User logged in on terminal *UU*. ; ? Login failures since last successful LOGIN Last successful LOGIN 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.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.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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. ;
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 Verify UAM 514 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card is inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.	**INIT-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 1.5 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 MASPs to Run on Target-Release GPLs

27 ☐	Response to flash initialization is shown.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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.x-YY.y.y FLASH Memory Download for card xxxx completed. ; **Note:** Wait for card to boot and return to the IMT bus.
28 ☐	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)
29 ☐	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 EAGLEEAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL OAMHC 1115 ---------- ---------- ---------- BLMCAP **YYY-YYY-YYY** ALM+ XXX-XXX-XXX **YYY-YYY-YYY** Command Completed. ;
30 ☐	Run the target release GPL on the standby MASP	**ALW-CARD:LOC=XXXX:CODE=INACTIVEPRTN** (target release on the inactive partition) (Where *XXXX* is the location of the standby MASP used in the previous command)
31 ☐	Response to allow card command is shown.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card has been allowed. ;
32 ☐	Issue the command to display the status of the MASPs' GPL	**REPT-STAT-GPL:GPL=OAMHC69**
33 ☐ ☐	Response from the retrieve command is displayed. Verify that the GPL versions that are displayed in the "RUNNING" column are correct; see section 1.3	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL OAMHC69 1113 XXX-XXX-XXX ALM YYY-YYY-YYY XXX-XXX-XXX * OAMHC69 1115 XXX-XXX-XXX ALM YYY-YYY-YYY XXX-XXX-XXX * Command Completed. ; Note: If no cards are displayed, repeat this step where gpl=oamhc.
34 ☐	If GPLs are not correct, do the following:	1. Repeat Step 2 - 33. 2. Contact My Oracle Support.

Procedure 5: Initializing MASPs 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`
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.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1113 XXX-XXX-XXX E5MCAP OAMHC IS-NR Standby ----- ALARM STATUS = No Alarms. BLMCAP GPL version = YYY-YYY-YYY IMT BUS A = Conn IMT BUS B = Conn CLOCK A = Active CLOCK B = Idle CLOCK I = 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 IPLNK IPADDR STATUS PST A 192.168.53.89 UP IS-NR Command Completed. ;
37 ☐	Repeat steps 35 – 36, for location 1115.	

Procedure 6: Verifying the Target Release and Software Access Key

S T E P #	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 AND **ASK FOR UPGRADE ASSISTANCE.**	
1 ☐	Validate the Software Access Key with the upgrade target release.	**ACT-UPGRADE:ACTION=CHKREL:SRC=FIXED**
2 ☐ ☐	Response from the software validation. Verify the Upgrade target release is correct. For pre-46.1 release, verify the Software Access Key is valid. SAK is not used from release 46.1 forward. If either the upgrade target release is incorrect or the Software Access Key is invalid **STOP** the upgrade and contact My Oracle Support.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y act-upgrade:action=chkrel:src=zzzz Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Upgrade target: EAGLE XX.x.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 ;

5.2 OAM Conversion

Procedure 7: Verifying all Databases

S T E P #	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**.

1 ☐ Issue the command to display database status during upgrades.

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

2 ☐ 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]

```
    DATABASE STATUS: >> OK <<
            TDM 1114 ( STDBY)                   TDM 1116 ( ACTV )
            C   LEVEL    TIME LAST BACKUP       C   LEVEL    TIME LAST BACKUP
            - -------- ---------------------- - -------- ----------------------
    FD BKUP Y      XXX YY-MM-DD hh:mm:ss TTTT Y      XXX YY-MM-DD hh:mm:ss TTTT
    FD CRNT Y      XXX YY-MM-DD hh:mm:ss TTTT Y      XXX YY-MM-DD hh:mm:ss TTTT
            MCAP 1113                           MCAP 1115
            - --------                          - --------
    RD BKUP -    -         -        -          -    -         -        -
    USB BKP -    -         -        -          -    -         -        -

    CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION      STATUS
    ---------  ----  -  -  ----------  -----------------  -----------  ------
    OAM-RMV    1113  -  -     -          -        -        -
    TDM-CRNT   1114  Y  N  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    TDM-BKUP   1114  Y  -  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    OAM-RMV    1115  -  -     -          -        -        -
    OAM-USB    1115  -  -     -          -        -        -
    TDM-CRNT   1116  Y  N  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    TDM-BKUP   1116  Y  -  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL

    INACTIVE PARTITION GROUP
    CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION      STATUS
    ---------  ----  -  -  ----------  -----------------  -----------  ------
    TDM-CRNT   1114  Y  -  1           YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  NORMAL
    TDM-BKUP   1114  Y  -  1           YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  NORMAL
    TDM-CRNT   1116  Y  -  1           YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  NORMAL
    TDM-BKUP   1116  Y  -  1           YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  NORMAL

;
```

3 ☐ Issue the command to retrieve the upgrade configuration

```
rtrv-upgrade-config
```

4 ☐ Response to the retrieve command is displayed.

☐ If target rlease is 46.0 or 45.x, verify that SAK is set. .

☐ The Threshold Type will be GROUP or SET.

```
    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

    Configured Upgrade Threshold Type: SET
      Number of SERVICE Sets: X
      Number of LINK Sets: Y

    Command Completed.
;
```

Note: Refer to B.2 to configure the Card Set network conversion method.

[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

S T E P #	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.**	

1 ☐	Issue the command to begin database conversion.
	
	Note that the duration of this command is dependent on the size of the database and the size of the network configuration. The duration can be from about two hours when using threshold type SET to up to 8-10 hours in large systems using threshold type GROUP.
	
	Table 18. Act Upgrade Command Actions lists the actions completed by the command.
	
	Appendix D contains messages illustrative of the output of upgrade during this series of operations.
		If the threshold type is set to SET in Procedure 7, Step 4 issue the following command:
		
		`ACT-UPGRADE:ACTION=CONVERTSTP:SRC=FIXED`
		
		Note: While upgrading from Release 46.9 to Release 46.9.1 or later releases, change `PURGEPERIOD` to `0` using the `CHG-ATTR-SECULOG:PURGEPERIOD=0` command.
		
		If the threshold type is set to GROUP in Procedure 7, Step 4, issue the following command:
		
		`ACT-UPGRADE:ACTION=CONVERTSTP:SRC=FIXED:THRES=75`
		
		Note: Threshold type GROUP is not a valid option for 46.9 or later releases, and therefore, the Act-upgrade:action=convertstp:src=fixed:thres=75 command is not valid for Release 46.9 and later.

Table 18. Act Upgrade Command Actions

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

[9] Proceed to step 3 to log back into the system and restart output capture.

Procedure 8: STP Conversion

2 ☐	Command is displayed. Note the banners transitions from Phase 0 to Phase 3. For incremental upgrade, see footnote [10] Completion notice of successful upgrade. If upgrade does not complete successfully, see recommendation # 7 in section 1.6	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. ; **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: 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*) ; (Where ***dddd*** defines conversion workspace) **NOTICE:** See Appendix D (D.1) for samples of output messages. eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase 3 Command Complete : Upgrade action completed successfully ; **NOTE: If upgrade terminates abnormally in phase 3 due to cards being in IS-ANR|DDL Hunt, contact My Oracle Support for assistance in executing Appendix D (D.2).**
3 ☐	After item G in step 1, issue the command to log back in to the system.	**LOGIN:UID=*XXXXXX*** (Where ***XXXXXX*** is a valid login ID)
4 ☐	Response to login command is displayed. Ignore any login failure message.	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. ; ? Login failures since last successful LOGIN Last successful LOGIN was on port ? on ??-??-?? @ ??:??:??
5 ☐	Issue the command to reactivate printer capture of upgrade process.	**ACT-ECHO:TRM=*P*** (Where ***P*** is the terminal port number specified in Procedure 1, Step 3)
6 ☐	Response to print capture command is displayed.	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. ;

[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.

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.

```
   eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase x
    DATABASE STATUS: >> OK <<
            TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
            C   LEVEL    TIME LAST BACKUP     C   LEVEL    TIME LAST BACKUP
            - -------- ---------------------- - -------- ----------------------
    FD BKUP Y       XXX YY-MM-DD hh:mm:ss TTTT Y       XXX YY-MM-DD hh:mm:ss TTTT
    FD CRNT Y       XXX YY-MM-DD hh:mm:ss TTTT Y       XXX YY-MM-DD hh:mm:ss TTTT
            MCAP 1113                        MCAP 1115
            - --------                       - --------
    RD BKUP -     -          -         -     -     -          -         -
    USB BKP -     -          -         -     -     -          -         -

    CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION      STATUS
    ---------  ----  -  -  ----------  -----------------  -------------------
    OAM-RMV    1113  -  -       -      -                  -
    TDM-CRNT   1114  Y  N  XXX        YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    TDM-BKUP   1114  Y  -  XXX        YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    OAM-RMV    1115  -  -       -      -                  -
    OAM-USB    1115  -  -       -      -                  -
    TDM-CRNT   1116  Y  N  XXX        YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    TDM-BKUP   1116  Y  -  XXX        YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL

    INACTIVE PARTITION GROUP
    CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION      STATUS
    ---------  ----  -  -  ----------  -----------------  -------------------
    TDM-CRNT   1114  Y  -  ZZZ        YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  UPG 3
    TDM-BKUP   1114  Y  -  ZZZ        YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  UPG 3
    TDM-CRNT   1116  Y  -  ZZZ        YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  UPG 3
    TDM-BKUP   1116  Y  -  ZZZ        YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  UPG 3

;
```

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.

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase x
    CARD   VERSION      TYPE    APPL      PST            SST        AST
    1101   XXX-XXX-XXX  DSM     SCCPHC    IS-NR          Active     -----
    1102   XXX-XXX-XXX  DSM     SCCPHC    IS-NR          Active     -----
    1103   XXX-XXX-XXX  TSM     GLSHC     IS-NR          Active     -----
    1104   XXX-XXX-XXX  TSM     GLSHC     IS-NR          Active     -----
    1105   XXX-XXX-XXX  LIMDS0  SS7ML     IS-NR          Active     -----
    1111   XXX-XXX-XXX  IPSM    IPSHC     OOS-MT         Isolated   -----
    1113   XXX-XXX-XXX  E5MCAP  OAMHC     IS-NR          Active     -----
    1114   -----------  E5TDM   -------   IS-NR          Active     -----
    1115   XXX-XXX-XXX  E5MCAP  OAMHC     IS-NR          Standby    -----
    1116   -----------  E5TDM   -------   IS-NR          Active     -----
    1117   -----------  E5MDAL  -------   IS-NR          Active     -----
    1201   XXX-XXX-XXX  LIMDS0  SS7ML     IS-NR          Active     -----
    1202   XXX-XXX-XXX  LIMDS0  SS7ML     IS-NR          Active     -----
    1203   XXX-XXX-XXX  LIMT1   SS7ML     IS-NR          Active     -----
    1204   XXX-XXX-XXX  LIMT1   SS7HC     IS-NR          Active     -----
    1205   XXX-XXX-XXX  DCM     SS7IPGW   IS-NR          Active     -----
    1207   XXX-XXX-XXX  DCM     IPGWI     IS-NR          Active     -----
    1211   XXX-XXX-XXX  LIMDS0  MPLGA     IS-NR          Active     -----
    1215   xxx-xxx-xxx  DSM     SCCPHC    IS-NR          Active     -----
    1217   xxx-xxx-xxx  DSM     SCCPHC    IS-NR          Active     -----
    3101   xxx-xxx-xxx  LIMATM  ATMANSI   IS-NR          Active     -----
    3102   xxx-xxx-xxx  LIMATM  ATMANSI   IS-NR          Active     -----
    Command Completed.
;
```

Procedure 8: STP Conversion

11 ☐ Issue the command to display GPL status.

```
RTRV-GPL
```

12 ☐ Response from the retrieve command is displayed.

☐ Verify that the GPL versions that are displayed in the "RELEASE" column are correct; see Section 1.3

```
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.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  -----------
    GGGGGG1    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG1    1113  -----------  -----------      -----------  -----------
    GGGGGG2    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG2    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG2    1113  -----------  -----------      -----------  -----------
    GGGGGG3    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG3    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG3    1113  -----------  -----------      -----------  -----------
    OAMHC      1114  XXX-XXX-XXX  XXX-XXX-XXX      -----------  -----------
    OAMHC      1116  XXX-XXX-XXX  XXX-XXX-XXX      -----------  -----------
    OAMHC      1113  -----------  -----------      -----------  -----------
    GGGGGG4    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG4    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG4    1113  -----------  -----------      -----------  -----------
    GGGGGG5    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG5    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG5    1113  -----------  -----------      -----------  -----------
    GGGGGG6    1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG6    1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
    GGGGGG6    1113  -----------  -----------      -----------  -----------

;
```

13 ■ Complete Procedure 65 to come out of the upgrade.

5.3 Completion of Session 1

Note:

- Migration to VxWorks6.9 would be done automatically during the upgrade. If any card is not migrated automatically to VxWorks6.9, then follow the procedure mentioned in Appendix G.
- If you are upgrading from Release 46.9.3 to Release 47.0 and LNP capacity is greater than 504M, then corresponding part numbers should be enabled via the enable-ctrl-feat command; otherwise, SCCP cards would go into the IS-ANR state.

→ This concludes SESSION ONE ←

5.4 Upgrade Session 2

Procedure 9. Verifying Upgrade Session 2 Requirements

S T E P #	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.**	
1 ☐	Complete pre-upgrade session 2 tasks	All tasks in Table 19 must be completed before continuing.

Table 19. Upgrade Session 2 Requirements

√	Tasks to be completed prior to upgrade session 2 execution
	Verify that an EAGLE system health check 3 has been performed.

Procedure 10: Upgrading Removable medias

S T E P #	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.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.x-YY.y.y chg-trm:trm=P:all=yes Command entered at terminal #XX. ;
5 ☐	If the measurements platform is enabled[11] go to step 9. Otherwise, issue the command to retrieve measurement status.	**rtrv-meas-sched**
6 ☐	Response to retrieve command is displayed. Record if collection is on or off: _____ Record if system configuration requires measurements to be on or off: _____ If COLLECT=ON, continue to next step. Otherwise, go to Step 9.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y COLLECT = off SYSTOT-STP = (off) SYSTOT-TT = (off) COMP-LNKSET = (off) COMP-LINK = (off) MTCD-STP = (on) MTCD-LINK = (on) MTCD-LNKSET = (on) ;
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 zzzz PPP XX.x.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.x-YY.y.y CHG-MEAS: MASP A – COMPLTD ;

[11] If enabled, the measurements platform feature is displayed in Procedure 1, Step 11.

Procedure 10: Upgrading Removable medias

9 ☐	Issue measurement report command.	**rept-meas:type=systot:enttype=stp**
10 ☐ ☐	Response to the command is displayed. If command fails, reattempt in five minutes until it completes, See Table 20.	E2278 Cmd Rej: 30-minute measurement collection in progress eaglestp YY-MM-DD hh:mm:ss zzzz PPP XX.x.x.x.x-YY.y.y rept-meas:type=systot:enttype=stp Command entered at terminal #XX. ;
11 ☐	If LNP feature on, issue measurement report command. (Note this cmd is not supported in 46.3)	**rept-meas:type=mtcd:enttype=lnp**
12 ☐ ☐	Response to the command is displayed. If command fails, reattempt in five minutes until it completes, See Table 20.	E2277 Cmd Rej: Daily measurement collection in progress eaglestp YY-MM-DD hh:mm:ss zzzz PPP XX.x.x.x.x-YY.y.y rept-meas:type=mtcd:enttype=lnp Command entered at terminal #XX. ;
13 ☐	Issue measurement report command.	**rept-meas:type=mtcdth:enttype=stp**
14 ☐ ☐ ☐	Response to the command is displayed. If command fails, reattempt in five minutes until it completes, See Table 20. If no source cartridges need upgrading, go to next procedure.	E2276 Cmd Rej: Day-to-hour measurement collection in progress eaglestp YY-MM-DD hh:mm:ss zzzz PPP XX.x.x.x.x-YY.y.y rept-meas:type= mtcdth:enttype=stp Command entered at terminal #XX. ;
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.	**format-disk:type=system:force=yes**
17 ☐	Response to format command is displayed. **If the format should fail, first repeat Step 16, then contact My Oracle Support.**	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Format-disk of system removable cartridge started. Extended processing required, please wait. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Format-disk of system removable cartridge completed. ;

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

Response ID Code:	Command Reject Text for MTT error:
E2276	Day-to-hour measurement collection in progress
E2277	Daily measurement collection in progress
E2278	30-minute measurement collection in progress
E2279	5-minute measurement collection in progress
E2290	Hourly measurement collection in progress
E3688	15-minute measurement collection in progress

Procedure 10: Upgrading Removable medias

18 ☐	Issue the command to copy the GPLs to the target-release RMD.	**copy-gpl**
19 ☐	Response to copy command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.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.x-YY.y.y COPY-GPL: MASP A - COPY COMPLETED ON ACTIVE MASP ;
20 ☐	Issue the command to backup the target-release database to the RMD.	**chg-db:action=backup:dest=remove**
21 ☐	Response to backup command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 5035.1114 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.x-YY.y.y BACKUP (REMOVABLE): MASP B - Backup starts on active MASP. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y BACKUP (REMOVABLE): MASP B - Backup to removable cartridge complete. ;
22 ☐	Remove the target-release RMD from the drive slot and store it in a safe place.	
23 ☐	If upgrading more RMDs, repeat step 15-22.	

Procedure 11: Backing Up Fixed Disk

S T E P #	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**.	
1 ☐	Issue the command to backup the database to the fixed disks.	`chg-db:action=backup`

2 ☐	Response and progress of the backup command are displayed.	`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.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.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.x-YY.y.y`
		`BACKUP (FIXED): MASP A - Backup starts on standby MASP.`
		`;`
		
		`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y`
		`BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete.`
		`;`

Procedure 12: Migrate the ATMITU or ATMANSI (E5-ATM-B) Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL

STEP #		
	Note: Run this procedure if the target release is 46.9.0 and later This procedure flashes the LIMATM or LIME1ATM-type E5-ATM-B cards to load new VxWorks 6.9 flash images. Complete the below procedure for every LIMATM or LIME1ATM-type E5-ATM-B 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**.	
1 ☐	If the source release was 46.7.x and later, issue the LIMATM or LIME1ATM-type card status command. Otherwise, continue to next procedure.	**REPT-STAT-CARD:APPL=ATMITU** OR **REPT-STAT-CARD:APPL=ATMANSI**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX LIMATM ATMHC IS-NR Active ----- XXXX XXX-XXX-XXX LIMATM ATMHC IS-NR Active ----- Command Completed. ;
3 ☐	For each LIMATM or LIME1ATM-type card listed above, issue the GPL status command.	REPT-STAT-GPL:LOC=XXXX (Where ***XXXX*** is the location of a LIMATM or LIME1ATM-type card slot listed in previous step.)
4 ☐	Response to the status command is displayed. If the "ALM" indictor is displayed for the card's flash image, continue. If card is running BLMCAP, continue. Otherwise repeat step 3 for next LIMATM or LIME1ATM-type card in list.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL ATMHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ZZZZZZ ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
5 ☐	Issue command to cancel the links on the card.	**DACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of the LIMATM or LIME1ATM-type card used in the previous step.)
6 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the LIMATM or LIME1ATM-type card use in previous command.)
7 ☐	Response to the inhibit command is displayed. If the ALM indication was displayed in step 4, continue. Otherwise, go to step 12.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; Note: Wait for the card to boot and return to the IMT bus.

Procedure 12: Migrate the ATMITU or ATMANSI (E5-ATM-B) Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL

8 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=XXXX:CODE=APPR:GPL=BLMCAP** (Where ***XXXX*** is the location of the LIMATM or LIME1ATM-type card used in previous command.)
9 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If card is running BLDC32, go to step 12. Otherwise, continue.	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 ZZZZZZ Card is running non-activated GPL ; Note: **Wait for** the **card to** boot and return to the IMT bus.
10 ☐	Issue command to activate the flash image	**ACT-FLASH:LOC=XXXX** **(Where *XXXX* is the location of the LIMATM or LIME1ATM-type card use in previous command.)**
11 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
12 ☐	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where ***XXXX*** is the location of the LIMATM or LIME1ATM-type card use in previous command.)
13 ☐	Response to flash command is shown. If either response is displayed, then proceed to the next step.	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. ; OR If the bootloader was succesfully downloaded previously: eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y BOOTLOADER not changed for card XXXX. Already running requested bootloader. ; eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y Command Completed. ;
14 ☐	Download target-release flash to the LIMATM or LIME1ATM-type card.	**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. 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 BLDC32 Card is running non-activated GPL ; **Note: Wait for the card to boot and return to the IMT bus.**
16 ☐	Issue command to activate the flash image.	**ACT-FLASH:loc=XXXX** (Where *XXXX* is the location of the LIMATM or LIME1ATM-type card used in the previous command.)

Procedure 12: Migrate the ATMITU or ATMANSI (E5-ATM-B) Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL

17 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
18 ☐	Issue the allow command to reload the LIMATM or LIME1ATM-type card.	**ALW-CARD:LOC=XXXX** (Where *XXXX* is the location of the card used in the previous command.)
19 ☐	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. ;
20 ☐	Retrieve status of the LIMATM or LIME1ATM-type card if present in the system.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of the card used in the previous command.)
21 ☐ ☐	Response to GPL status command. Verify that LIMATM or LIME1ATM-type card is BLDC32 GPL.	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 ATMHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLDC32 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
22 ☐	Issue command to activate the links.	**ACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of the LIMATM or LIME1ATM-type card in Step 3.)
23 ☐	Issue command to report the status of the LIMATM or LIME1ATM-type cards.	**REPT-STAT-CARD:APPL=ATMITU** OR **REPT-STAT-CARD:APPL=ATMANSI**
24 ☐	Response to the status command. Verify that LIMATM or LIME1ATM cards have returned to IS-NR.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX LIMATM ATMHC IS-NR Active ----- XXXX XXX-XXX-XXX LIMATM ATMHC IS-NR Active ----- Command Completed. ;
25 ☐	If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 24 for the next card listed in Step 1. Note: Wait till this flashed LIMATM or LIME1ATM-type card to complete reloading before proceeding to next step.	

Procedure 13: Migrate the E5-E1T1-B Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL

S T E P #		
	Note: Run this procedure if the target release is 46.9.0 and later This procedure flashes the LIME1 or LIMT1 E5-E1T1-B cards to load new VxWorks 6.9 flash images. For SLIC cards running the SS7HC GPL, use the next procedure. Complete the below procedure for every LIME1 or LIMT1 E5-E1T1-B 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**.	
1 ☐	If the source release was 46.7.x and later, issue the LIME1 or LIMT1 card status command. Otherwise, continue to next procedure.	**REPT-STAT-CARD:APPL=SS7ANSI** OR **REPT-STAT-CARD:APPL=CCS7ITU**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- Command Completed. ;
3 ☐	For each LIME1 or LIMT1 E5-E1T1-B-type card listed above, issue the GPL status command.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of a LIME1 or LIMT1 E5-E1T1-B card slot listed in previous step..)
4 ☐	Response to the status command is displayed. If the "ALM" indictor is displayed for the card's flash image, continue. If card is running BLMCAP, continue. Otherwise repeat step 3 for next LIME1 card in list.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL SS7HC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ZZZZZZ ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY **Command Completed.**
5 ☐	Issue command to cancel the links on the card.	**DACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of the LIME1 or LIMT1 E5-E1T1-B card used in the previous step.)
6 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the LIME1 or LIMT1 E5-E1T1-B card use in previous command.)
7 ☐	Response to the inhibit command is displayed. If the ALM indication was displayed in step 4, continue. Otherwise, go to step 12.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; Note: Wait for the card to boot and return to the IMT bus.
8 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=XXXX:CODE=APPR:GPL=BLMCAP** (Where ***XXXX*** is the location of the LIME1 or LIMT1 E5-E1T1-B card used in the previous command.)

Procedure 13: Migrate the E5-E1T1-B Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL

9 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If card is running BLDC32, go to step 12. Otherwise, continue.	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 ZZZZZZ Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
10 ☐	Issue command to activate the flash image	**ACT-FLASH:LOC=XXXX** (Where ***XXXX*** is the location of the LIME1 or LIMT1 E5-E1T1-B card used in previous command.)
11 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
12 ☐	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where ***XXXX*** is the location of the LIME1 or LIMT1 E5-E1T1-B card used in the previous command.)
13 ☐	Response to flash command is shown. If either response is displayed, then proceed to the next step.	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. ; OR If the bootloader was succesfully downloaded previously: eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y BOOTLOADER not changed for card XXXX. Already running requested bootloader. ; eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y Command Completed. ;
14 ☐	Download target-release flash to the LIME1 or LIMT1 E5-E1T1-B card.	**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. 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 BLDC32 Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
16 ☐	Issue command to activate the flash image.	**ACT-FLASH:loc=XXXX** (Where ***XXXX*** is the location of the LIME1 or LIMT1 E5-E1T1-B card used in the previous command.)

Procedure 13: Migrate the E5-E1T1-B Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL

17 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
18 ☐	Issue the allow command to reload the LIME1 or LIMT1 E5-E1T1-B card.	**ALW-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the card used in the previous command.)
19 ☐	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. ;
20 ☐	Retrieve status of the LIME1 or LIMT1 E5-E1T1-B card if present in the system.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of the card used in the previous command.)
21 ☐ ☐	Response to GPL status command. Verify that LIME1 or LIMT1 card is BLDC32 GPL.	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 SS7HC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLDC32 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
22 ☐	Issue command to activate the links.	**ACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of LIME1 or LIMT1 card in Step 3.)
23 ☐	Issue command to report the status of the LIME1 or LIMT1 cards.	**REPT-STAT-CARD:APPL=SS7ANSI** OR **REPT-STAT-CARD:APPL=CCS7ITU**
24 ☐	Response to the status command. Verify that LIME1 or LIMT1 cards have returned to IS-NR.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- Command Completed. ;
25 ☐	If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 24 for the next card listed in Step 2. Note: Wait till this flashed LIME1 or LIMT1 E5-E1T1-B card to complete reloading before proceeding to next step.	

Procedure 14: CCS7ITU or SS7ANSI Application is Provisioned on SLIC Card, Migrate the Same to VxWorks6.9

S T E P #	Note: Run this procedure if the target release is 46.9.0 and later This procedure is to migrate the SLIC card running SS7HC GPL to Vxworks6.9 from VxWorks6.4. Complete the below procedure for every LIME1 or LIMT1 application running on SLIC 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**.	
1 ☐	If the source release was 46.7.x and later, issue the LIME1 or LIMT1 card status command. Otherwise, continue to next procedure.	**REPT-STAT-CARD:APPL=SS7ANSI** OR **REPT-STAT-CARD:APPL=CCS7ITU**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- Command Completed. ;
3 ☐	For each card with type equal to LIME1 or LIMT1 listed above, issue the GPL status command.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of a a LIME1 or LIMT1 SLIC card slot listed in previous step.)
4 ☐	Response to the GPL status command is displayed. If the ALM indictor is displayed for the card's flash image, continue. If card is running BLSLC32, continue.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL SS7HC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLSLC32 ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY **Command Completed.**
5 ☐	Issue command to cancel the links on the card.	**DACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of the LIME1 or LIMT1 SLIC card used in the previous step.)
6 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the LIME1 or LIMT1 SLIC card.)
7 ☐	Response to the inhibit command is displayed. If the ALM indication was displayed in step 4, continue. Otherwise, go to step 12.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; Note: Wait for the card to boot and return to the IMT bus.
8 ☐	Issue command to download approved flash image.	INIT-FLASH:LOC=XXXX:CODE=APPR (Where ***XXXX*** is the location of the LIME1 or LIMT1 SLIC card used in the previous command.)
9 ☐ ☐	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 Upg Phase 3 FLASH Memory Download for card xxxx started. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 FLASH Memory Download for card xxxx completed. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 8003.0004 * GPL SYSTEM ZZZZZZ Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.

10 ☐	Issue command to activate the flash image	**ACT-FLASH:LOC=XXXX** (Where ***XXXX*** is the location of the LIME1 or LIMT1 SLIC card used in previous command.)
11 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y Upg Phase 3 FLASH Activation for card XXXX Completed. ;
12 ☐	Issue update bootloader command.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where ***XXXX*** is the location of the LIME1 or LIMT1 SLIC card used in previous command.)
13 ☐	Issue flash command to download target-release flash to the LIME1 or LIMT1 SLIC card.	**INIT-FLASH:LOC=XXXX:CODE=APPR:GPL=BLSL932** (Where ***XXXX*** is the location used in 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 BLSL932 Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
15 ☐	Issue command to activate the flash image.	**ACT-FLASH:LOC=XXXX** **(Where *XXXX* is the location of the LIME1 or LIMT1 SLIC card used in previous command.)**
16 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
17 ☐	Issue the allow command to reload the LIME1 or LIMT1 SLIC card.	**ALW-CARD:LOC=XXXX** (Where ***XXXX*** is the location used in previous command.)
18 ☐	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. ;
19 ☐	Issue command to report GPL status.	**REPT-STAT-GPL:LOC=XXXX**
20 ☐	Response to GPL status command. Verify that LIME1 or LIMT1 SLIC card is running BLSL932 GPL.	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 SS7HC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLSL932 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
21 ☐	Issue command to activate the links.	**ACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where *XXXX* is the location of LIME1 or LIMT1 card in Step 3.)
22 ☐	Issue command to report the status of the LIME1 or LIMT1 cards.	**REPT-STAT-CARD:APPL=SS7ANSI** OR **REPT-STAT-CARD:APPL=CCS7ITU**

23 ☐ ☐	Response to the status command. Verify that LIME1 or LIMT1 cards have returned to IS-NR.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- Command Completed. ;
24 ☐	If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 23 for the next card listed in Step 2. Note: Wait till this flashed LIME1 or LIMT1 card to complete reloading before proceeding to next step.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- XXXX XXX-XXX-XXX LIME1 SS7HC IS-NR Active ----- Command Completed. ;

Procedure 15: Migrate the E5ENET EPMB Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL

S T E P #		
	Note: Run this procedure if the target release is 46.9.0 and later This procedure flashes the E5ENET EPMB cards to load new VxWorks 6.9 flash images. For SLIC cards running the IPSG or IPSG32 application, use the next procedure. Complete the below procedure for every E5ENET EPMB 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**.	
1 ☐	If the source release was 46.7.x and later, issue the E5ENET card status command. Otherwise, continue to next procedure.	**REPT-STAT-CARD:APPL=IPSG**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX E5ENET IPSG IS-NR Active ----- XXXX XXX-XXX-XXX E5ENET IPSG IS-NR Active ----- XXXX XXX-XXX-XXX E5ENET IPSG32 IS-NR Active ----- Command Completed. ;
3 ☐	For each E5ENET-type card listed above, issue the GPL status command.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of an E5ENET card slot listed in the previous step.)
4 ☐	Response to the status command is displayed. If the "ALM" indictor is displayed for the card's flash image, continue. If card is running BLMCAP, continue. Otherwise repeat step 3 for the next E5ENET card in list.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL IPSG XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IPSG32 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ZZZZZZ ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY Command Completed.
5 ☐	Issue command to cancel the links on the card.	**DACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of the E5ENET card used in the previous step.)
6 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of E5ENET card used in the previous command.)
7 ☐	Response to the inhibit command is displayed. If the ALM indication was displayed in step 4, continue. Otherwise, go to step 12.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; Note: Wait for the card to boot and return to the IMT bus.
8 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=XXXX:CODE=APPR:GPL=BLMCAP** (Where ***XXXX*** is the location of the E5ENET card used in the previous command.)

9 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If card is running BLDC32, go to step 10. Otherwise, continue.	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 ZZZZZZ Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
10 ☐	Issue command to activate the flash image	**ACT-FLASH:LOC=XXXX** (Where ***XXXX*** is the location of the E5ENET card used in the previous command.)
11 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
12 ☐	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where ***XXXX*** is the location of the E5ENET card used in the previous command.)
13 ☐	Response to flash command is shown. If either response is displayed, then proceed to the next step.	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. ; OR If the bootloader was succesfully downloaded previously: eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y BOOTLOADER not changed for card XXXX. Already running requested bootloader. ; eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y Command Completed. ;
14 ☐	Download target-release flash to the E5ENET card.	**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. 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 BLDC32 Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
16 ☐	Issue command to activate the flash image.	**ACT-FLASH:loc=XXXX** (Where ***XXXX*** is the location of the E5ENET card used in the previous command.)
17 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
18 ☐	Issue the allow command to reload the E5ENET card.	**ALW-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the card used in the previous command.)

19 ☐	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. ;
20 ☐	Retrieve status of the E5ENET card if present in the system.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of the card used in the previous command.)
21 ☐ ☐	Response to GPL status command. Verify that E5ENET card is BLDC32 GPL.	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 ISPG69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ISPG932 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLDC32 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
22 ☐	Issue command to activate the links.	**ACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of the E5ENET card in Step 5.)
23 ☐	Issue command to report the status of the E5ENET cards.	**REPT-STAT-CARD:APPL=IPSG**
24 ☐	Response to the status command. Verify that E5ENET cards have returned to IS-NR.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX E5ENET IPSG IS-NR Active ----- XXXX XXX-XXX-XXX E5ENET IPSG IS-NR Active ----- XXXX XXX-XXX-XXX E5ENET IPSG32 IS-NR Active ----- Command Completed.
25 ☐	If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 24 for the next card listed in Step 2. Note: Wait till this flashed E5ENET card to complete reloading before proceeding to next step.	

Procedure 16: IPSG Application is Provisioned on SLIC Card, Migrate the Same to VxWorks6.9

S T E P #		
	Note: Run this procedure if the target release is 46.9.0 and later This procedure is to migrate the SLIC card running IPSG or IPSG32 application to Vxworks6.9 from VxWorks6.4. Complete the below procedure for every E5ENET application running on SLIC 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**.	
1 ☐	If the source release was 46.7.x and later, issue the E5ENET card status command. Otherwise, continue to next procedure.	**REPT-STAT-CARD:APPL=IPSG**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC IPSG IS-NR Active ----- XXXX XXX-XXX-XXX SLIC IPSG IS-NR Active ----- XXXX XXX-XXX-XXX SLIC IPSG32 IS-NR Active ----- Command Completed. ;
3 ☐	For each card with type equal to E5ENET listed above, issue the GPL status command.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of an E5ENET SLIC card slot listed in the previous step.)
4 ☐	Response to the GPL status command is displayed. If the ALM indictor is displayed for the card's flash image, continue. If card is running BLSLC32, continue.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL IPSG XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IPSG32 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLSLC32 ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY Command Completed.
5 ☐	Issue command to cancel the links on the card.	**DACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of an E5ENET SLIC card used in the previous step.)
6 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of an E5ENET SLIC card.)
7 ☐	Response to the inhibit command is displayed. If the ALM indication was displayed in step 4, continue. Otherwise, go to step 12.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; Note: Wait for the card to boot and return to the IMT bus.
8 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=XXXX:CODE=APPR** (Where ***XXXX*** is the location of the E5ENET SLIC card used in the previous command.)
9 ☐ ☐	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 Upg Phase 3 FLASH Memory Download for card xxxx started. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 FLASH Memory Download for card xxxx completed. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 8003.0004 * GPL SYSTEM ZZZZZZ Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.

10 ☐	Issue command to activate the flash image	**ACT-FLASH:LOC=XXXX** (Where *XXXX* is the location of the E5ENET SLIC card used in previous command.)
11 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y Upg Phase 3 FLASH Activation for card XXXX Completed. ;
12 ☐	Issue update bootloader command.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where *XXXX* is the location of the E5ENET SLIC card used in previous command.)
13 ☐	Issue flash command to download target-release flash to the E5ENET SLIC card.	**INIT-FLASH:LOC=XXXX:CODE=APPR:GPL=BLSL932** (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 BLSL932 Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
15 ☐	Issue command to activate the flash image.	**ACT-FLASH:LOC=XXXX** (Where *XXXX* is the location of the E5ENET SLIC card used in previous command.)
16 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
17 ☐	Issue the allow command to reload the E5ENET SLIC card.	**ALW-CARD:LOC=XXXX** (Where *XXXX* is the location used in previous command.)
18 ☐	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. ;
19 ☐	Issue command to report GPL status.	**REPT-STAT-GPL:LOC=XXXX**
20 ☐	Response to GPL status command. Verify that E5ENET SLIC card is running BLSL932 GPL.	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 IPSG69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IPSG932 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLSL932 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
21 ☐	Issue command to activate the links.	**ACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where *XXXX* is the location of E5ENET card in Step 5.)
22 ☐	Issue command to report the status of the E5ENET cards.	**REPT-STAT-CARD:APPL=IPSG**

23 ☐ ☐	Response to the status command. Verify that E5ENET cards have returned to IS-NR.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC IPSG IS-NR Active ----- XXXX XXX-XXX-XXX SLIC IPSG IS-NR Active ----- XXXX XXX-XXX-XXX SLIC IPSG32 IS-NR Active ----- Command Completed. ;
24 ☐	If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 23 for the next card listed in Step 2. Note: Wait till this flashed E5ENET card to complete reloading before proceeding to next step.	

Procedure 17: Migrate the STC E5-EPMB Cards Running VxWorks 6.4 GPL to VxWorks 6.9 GPL

S T E P #		
	Note: Run this procedure if the target release is 46.9.0 and later This procedure flashes the STC E5-EPMB cards to load new VxWorks 6.9 flash images. For SLIC cards running the ERTHC application, use the next procedure. Complete the below procedure for every STC E5-EPMB 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**.	
1 ☐	If the source release was 46.7.x and later, issue the STC card status command. Otherwise, continue to next procedure.	**REPT-STAT-CARD:APPL=ERTHC**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX STC ERTHC IS-NR Active ----- XXXX XXX-XXX-XXX STC ERTHC IS-NR Active ----- Command Completed. ;
3 ☐	For each STC-type card listed above, issue the GPL status command.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of an STC card slot listed in the previous step.)
4 ☐	Response to the status command is displayed. If the "ALM" indictor is displayed for the card's flash image, continue. If card is running BLMCAP, continue. Otherwise repeat step 3 for the next STC card in list.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL ERTHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ZZZZZZ ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY Command Completed.
5 ☐	Issue command to cancel the links on the card.	**DACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of the E5ENET card used in the previous step.)
6 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the STC card used in the previous command.)
7 ☐	Response to the inhibit command is displayed. If the ALM indication was displayed in step 4, continue. Otherwise, go to step 12.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; Note: Wait for the card to boot and return to the IMT bus.
8 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=XXXX:CODE=APPR:GPL=BLMCAP** (Where ***XXXX*** is the location of the STC card used in the previous command.)
9 ☐	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. ;

☐	Verify UAM 0004 is displayed. If card is running BLDC32, go to step 10. Otherwise, continue.	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 ZZZZZZ Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
10 ☐	Issue command to activate the flash image	**ACT-FLASH:LOC=XXXX** (Where ***XXXX*** is the location of the STC card used in the previous command.)
11 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
12 ☐	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where ***XXXX*** is the location of the STC card used in the previous command.)
13 ☐	Response to flash command is shown. If either response is displayed, then proceed to the next step.	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. ; OR If the bootloader was succesfully downloaded previously: eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y BOOTLOADER not changed for card XXXX. Already running requested bootloader. ; eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y Command Completed. ;
14 ☐	Download target-release flash to the STC card.	**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. 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 BLDC32 Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
16 ☐	Issue command to activate the flash image.	**ACT-FLASH:loc=XXXX** (Where ***XXXX*** is the location of the STC card used in the previous command.)
17 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
18 ☐	Issue the allow command to reload the STC card.	**ALW-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the card used in the previous command.)
19 ☐	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. ;

20 ☐	Retrieve status of the STC card if present in the system.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of the card used in the previous command.)
21 ☐ ☐	Response to GPL status command. Verify that STC card is BLDC32 GPL.	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 ERTHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLDC32 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
22 ☐	Issue command to activate the links.	**ACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of the STC card in Step 5.)
23 ☐	Issue command to report the status of the STC cards.	**REPT-STAT-CARD:APPL=ERTHC**
24 ☐	Response to the status command. Verify that STC cards have returned to IS-NR.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX STC ERTHC IS-NR Active ----- XXXX XXX-XXX-XXX STC ERTHC IS-NR Active ----- Command Completed. ;
25 ☐	If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 24 for the next card listed in Step 2. Note: Wait till this flashed STC card to complete reloading before proceeding to next step.	

Procedure 18: ERTHC Application is Provisioned on SLIC Card, Migrate the Same to VxWorks6.9

S T E P #		
	Note: Run this procedure if the target release is 46.9.0 and later This procedure is to migrate the SLIC card running ERTHC application to Vxworks6.9 from VxWorks6.4. Complete the below procedure for every STC application running on SLIC 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**.	
1 ☐	If the source release was 46.7.x and later, issue the STC card status command. Otherwise, continue to next procedure.	**REPT-STAT-CARD:APPL=EROUTE**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC ERTHC IS-NR Active ----- XXXX XXX-XXX-XXX SLIC ERTHC IS-NR Active ----- Command Completed. ;
3 ☐	For each card with type equal to STC listed above, issue the GPL status command.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of an STC SLIC card slot listed in the previous step.)
4 ☐	Response to the GPL status command is displayed. If the ALM indictor is displayed for the card's flash image, continue. If card is running BLSLC32, continue.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL ERTHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLSLC32 ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY Command Completed.
5 ☐	Issue command to cancel the links on the card.	**DACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where ***XXXX*** is the location of an STC SLIC card used in the previous step.)
6 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of an STC SLIC card.)
7 ☐	Response to the inhibit command is displayed. If the ALM indication was displayed in step 4, continue. Otherwise, go to step 12.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; Note: Wait for the card to boot and return to the IMT bus.
8 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=XXXX:CODE=APPR** (Where ***XXXX*** is the location of the STC card used in the previous command.)
9 ☐ ☐	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 Upg Phase 3 FLASH Memory Download for card xxxx started. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 FLASH Memory Download for card xxxx completed. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 8003.0004 * GPL SYSTEM ZZZZZZ Card is running non-activated GPL ;

		Note: Wait for the card to boot and return to the IMT bus.
10 ☐	Issue command to activate the flash image	**ACT-FLASH:LOC=XXXX** (Where *XXXX* is the location of the STC card used in previous command.)
11 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y Upg Phase 3 FLASH Activation for card XXXX Completed. ;
12 ☐	Issue update bootloader command.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where *XXXX* is the location of the STC SLIC card used in previous command.)
13 ☐	Issue flash command to download target-release flash to the STC SLIC card.	**INIT-FLASH:LOC=XXXX:CODE=APPR:GPL=BLSL932** (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 BLSL932 Card is running non-activated GPL ; Note: Wait for the card to boot and return to the IMT bus.
15 ☐	Issue command to activate the flash image.	**ACT-FLASH:LOC=XXXX** (Where *XXXX* is the location of the STC SLIC card used in previous command.)
16 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
17 ☐	Issue the allow command to reload the STC card.	**ALW-CARD:LOC=XXXX** (Where *XXXX* is the location used in previous command.)
18 ☐	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. ;
19 ☐	Issue command to report GPL status.	**REPT-STAT-GPL:LOC=XXXX**
20 ☐	Response to GPL status command. Verify that STC card is running BLSL932 GPL.	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 ERTHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLSL932 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
21 ☐	Issue command to activate the links.	**ACT-SLK:LOC=XXXX:LINK=<LINK NAME>** (Where *XXXX* is the location of STC card in Step 5.)
22 ☐	Issue command to report the status of the STC cards.	**REPT-STAT-CARD:APPL=ERTHC**
23 ☐	Response to the status command.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC ERTHC IS-NR Active -----

☐	Verify that STC cards have returned to IS-NR.	XXXX XXX-XXX-XXX SLIC ERTHC IS-NR Active ----- Command Completed. ;
24 ☐	If this is the last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3 - 23 for the next card listed in Step 2. Note: Wait till this flashed STC card to complete reloading before proceeding to next step.	

Procedure 19: Force cold restart of IPS card during upgrade

S T E P #	Note: Run this procedure if the target release is R48.0 or later Note: SSH Key creation time has been increased in Rel 48.0 due to new algorithms and increased SSH key size. This procedure is to force cold boot of IPS card during 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**.
1 ☐	If destination release is 48.0 and later, enable shell on IPS card. Otherwise, continue to next procedure.	**PASS:loc=XXXX:shellcmd="-enable"**
2 ☐	Response to the shell card command is displayed.	-> 0x1809620 (tRUI_Shell): 0x1809620 (tRUI_Shell): Shell Output now being re directed to Eagle Terminal 6 Shell Output now being redirected to Eagle Terminal 6 tk_pool_mech_init() value = -1 = 0xffffffff -> tk_pool_attach(0,0,0) value = -1 = 0xffffffff -> tk_router_init(2,0,0) value = -1 = 0xffffffff eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y VxWorks Option Command OK ;
3 ☐	Update restart info to force cold reboot IPS card during upgrade	**PASS:loc=XXXX:shellcmd="ssh_update_restart_info(0,11)"** (Where ***XXXX*** is the location of an IPS card slot listed in the previous step.) Note: After running the above command, do not reboot the card. In the event that the card reboots, please re-run command.
4 ☐	Response to the restart info command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y -> ssh_update_restart_info(0,11) value = 0 = 0x0
5 ☐	Disable shell command on IPS cards.	**PASS:loc=XXXX:shellcmd="-disable"** (Where ***XXXX*** is the location of a IPS card used in the previous step.)

6 ☐	Response to the shell card command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y -> 0x1809620 (tRUI_Shell): 0x1809620 (tRUI_Shell): Restoring VxWorks Shell t o Serial device

Procedure 20: Verify the latest boot loader on card and update if older.

STEP #		
	Note: Run this procedure if the target release is 46.8.0 and later This procedure is to identify and update the bootloader of all network 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**.	
1 ☐	Issue command to check bootloader on a card.	**REPT-STAT-CARD:LOC=*XXXX*:MODE=FULL** (Where ***XXXX*** is the location of the card.)
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Upg Phase 3 CARD VERSION TYPE GPL PST SST AST *xxxx* *xxx-xxx-xxx* SLIC IPSG IS-NR **ACTIVE** --- ALARM STATUS = No Alarms. BLSL932 GPL version = XXX-XXX-XXX IMT BUS A = Conn IMT BUS B = Conn CLOCK A = Active CLOCK B = Idle CLOCK I = Idle MBD BIP STATUS = Valid MOTHER BOARD ID = SLIC DBD STATUS = Valid DBD TYPE = None DBD MEMORY SIZE = 16384M HW VERIFICATION CODE= ---- FPGA VERSION = 3c8 BIOS VERSION = 006 PSOC VERSION = 1.0 Bootloader VERSION = 2 CURRENT TEMPERATURE = 36C (97F) PEAK TEMPERATURE: = 38C (101F) [23-09-25 11:18] IPLNK STATUS IPLNK IPADDR STATUS PST A XXX.XXX.XX.XX UP IS-NR Command Completed. ;
3 ☐	For SLIC cards, the Bootloader VERSION =2 and for EPM-B cards the Bootloader VERSION =4 is the latest boot loader.	If it's not the case, then proceed to the next step.
4 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the card.)
5 ☐	Response to the inhibit command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; Note: Wait for the card to boot and return to the IMT bus.
6 ☐	Issue update bootloader command.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where XXXX is the location of the card used in previous command.)
7 ☐	Issue the command to allow card.	**ALW-CARD:LOC=*XXXX*** Where XXXX is the location for the card.
8 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been allowed. ;

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

Procedure 21: Upgrading Spare MASPs

STEP #		
	This procedure describes how to upgrade your spare MASPsto the target release. 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 card status.	**REPT-STAT-CARD:APPL=OAM**
2 ☐ ☐	Response to the card status command is displayed. Determine MASP activity. Act MASP _____ Stby MASP _____	CARD VERSION TYPE GPL PST SST AST 1113 XXX-XXX-XXX E5MCAP OAMHC IS-NR Standby ----- 1115 XXX-XXX-XXX E5MCAP OAMHC IS-NR Active ----- Command Completed. ;
3 ☐	Issue the command to inhibit standby MASP.	**INH-CARD:LOC=*XXXX*** (Where *XXXX* is the location for the Standby MASP in the previous steps.)
4 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
5 ☐	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.
6 ☐	Issue command to report the GPLs running on the card location.	**REPT-STAT-GPL:LOC=*XXXX*** (Where *XXXX* is the location for the Standby MASP recorded Step 2.)
7 ☐	Response to the status command is displayed. If the "ALM" indicator is displayed for the card's flash image, continue.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y GPL CARD RUNNING APPROVED TRIAL GGGGG XXXX ----------- ----------- ----------- BLMCAP **YYY-YYY-YYY** ALM XXX-XXX-XXX **YYY-YYY-YYY** Command Completed. ;

	If the target release is 46.6 or higher and the card is running BLMCAP, continue. Otherwise, go to step 20.	
8 ☐	Download the approved version flash to the standby MASP.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR** (Where ***XXXX*** is the location of the standby MASP slot used in the previous command.)
9 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If the target release is 46.6 or higher and the card is running BLMCAP, continue. Otherwise, go to step 18.	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 ***ZZZZZZ*** Card is running non-activated GPL ; **Note:** Wait for card to boot and return to the IMT bus.
10 ☐	Issu 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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
12 ■	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=*XXXX*:MODE=RPLCEBL:BITS=32** (Where *XXXX* is the location of the standby MASP slot used in the previous command.)
13 ☐	Response to flash command is shown.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 BOOTLOADER change for card XXXX SUCCESSFUL. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 Command Completed. ;
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. 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 **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. Verify that card is running BLDC32 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 ---------- ---------- ---------- BLDC32 YYY-YYY-YYY+ YYY-YYY-YYY XXX-XXX-XXX Command Completed. ;
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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y Upg Phase 3 FLASH Activation for card *XXXX* Completed. ;
20 ☐	Insert target-release USB into the drive slot on the standby E5-MASP.	Once inserted, allow time for the RMD to be detected by the system.
21 ☐	Issue the command to allow card.	**ALW-CARD:LOC=*XXXX*** Where *XXXX* is the location for the Standby MASP.
22 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been allowed. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
23 ☐	Issue the command to display MASP status.	**REPT-STAT-CARD:APPL=OAM**
24 ☐ ☐	Response to the card status command is displayed. Verify the MASP cards are running the same version of the OAM application GPL.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1113 XXX-XXX-XXX *TTTTT* *GGGG* IS-NR ACTIVE ---- 1115 XXX-XXX-XXX *TTTTT* *GGGG* IS-NR STANDBY ---- Command Completed. ;
25 ☐	Remove the target release USB from the drive slot on the standby E5-MASP.	
26 ☐	Issue the command to display security log status.	**REPT-STAT-SECULOG**
27 ☐ ☐	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 34.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y rept-stat-seculog Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y -- SINCE LAST UPLOAD -- OLDEST NEWEST LAST LOC ROLE ENTRIES %FULL OFLO FAIL RECORD RECORD UPLOAD 1114 Active 19 1 No No 99-01-01 99-01-01 00-00-00 13:43:37 14:08:12 00:00:00 1116 Standby 0 0 No No 99-01-01 99-01-01 99-01-01 13:39:39 13:43:10 14:07:59 ;
27 ☐	Issue the command to copy the security log from the standby disk to FTA area.	**COPY-SECULOG:SLOG=STB:DFILE=UPGP15.SPR**
28 ☐ ☐	Response to copy seculog command is displayed. If this command fails, proceed to next step. Otherwise, go to step 34.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Security log on TDM 111X copied to file upgP15.spr on TDM 111Y ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 0468.0177 SECULOG 111X Security log exception cleared ;
29 ☐	Issue the command to display the FTA directory.	**DISP-FTA-DIR**
30 ☐ ☐	Response to display directory command is displayed. If there are any files that need to be saved, they need to be removed via a file transfer.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y File Transfer Area Directory of fixed disk 111Y 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 ;

31 ☐	Issue the command to delete ALL files in the transfer area.	**DLT-FTA:ALL=YES**
32 ☐	Response to the delete command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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. Note: user terminal port may be automatically logged out. Wait for the card reload to complete.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.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.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.
37 ☐	If the measurements platform is enabled then go to the next procedure. Otherwise, if Procedure 10 Steps 7 & 8 were completed, 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.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.x-YY.y.y CHG-MEAS: MASP A - COMPLTD ;

Procedure 22: Upgrading Spare HIPR2 cards

S T E P #	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**. .	
1 ☐	Issue the command to display imt bus status.	**rept-stat-mux**
2 ☐	Response to the MUX status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD TYPE PST SST AST BITRATE 1109 HIPR2 IS-NR Active ----- HIGH 1110 HIPR2 IS-NR Active ----- HIGH 1209 HIPR2 IS-NR Active ----- HIGH 1210 HIPR2 IS-NR Active ----- HIGH 1309 HIPR2 IS-NR Active ----- HIGH 1310 HIPR2 IS-NR Active ----- HIGH Command Completed. ;
3 ☐	Issue the command to display imt bus status.	**rept-stat-imt**
4 ☐ ☐	Response to the card status command is displayed. Verify that both imt buses are IS-NR. If either bus is not IS-NR Stop this procedure and contact My Oracle Support.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y IMT PST SST AST A IS-NR Active ----- ALARM STATUS = No Alarms. IMT PST SST AST B IS-NR Active ----- ALARM STATUS = No Alarms. Command Completed. ;
5 ☐	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.	**init-mux:bus=b:hs=no**
6 ☐	Response to the above command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y init-mux:bus=b:hs=no Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
7 ☐	Issue the command to display imt bus status.	**rept-stat-mux**
8 ☐	Response to the MUX status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD TYPE PST SST AST BITRATE 1109 HIPR2 IS-NR Active ----- HIGH 1110 HIPR2 IS-NR Active ----- LOW 1209 HIPR2 IS-NR Active ----- HIGH 1210 HIPR2 IS-NR Active ----- LOW 1309 HIPR2 IS-NR Active ----- HIGH 1310 HIPR2 IS-NR Active ----- LOW Command Completed. ;

Procedure 22: Upgrading Spare HIPR2 cards

9 ☐	Issue the command to display imt bus status.	**rept-stat-imt**
10 ☐ ☐	Response to the card status command is displayed. Verify that both imt buses are IS-NR. If either bus is not IS-NR Stop this procedure and contact My Oracle Support.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y IMT PST SST AST A IS-NR Active ----- ALARM STATUS = No Alarms. IMT PST SST AST B IS-NR Active ----- ALARM STATUS = No Alarms. Command Completed. ;
11 ☐	Issue the command to inhibit IMT bus-B.	**inh-imt:bus=b**
12 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Inhibit IMT Bus B command issued ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 8687.0098 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-imt:bus=b**
15 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y 8712.0097 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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD TYPE PST SST AST BITRATE 1109 HIPR2 IS-NR Active ----- HIGH 1110 HIPR2 IS-NR Active ----- LOW 1209 HIPR2 IS-NR Active ----- HIGH 1210 HIPR2 IS-NR Active ----- LOW 1309 HIPR2 IS-NR Active ----- HIGH 1310 HIPR2 IS-NR Active ----- LOW Command Completed. ;
18 ☐	Issue the command to display imt bus status.	**rept-stat-imt**

Procedure 22: Upgrading Spare HIPR2 cards

19 ☐ ☐ ☐	Response to the card status command is displayed. Verify that both imt buses are IS-NR. If either bus is not IS-NR Stop this procedure and contact My Oracle Support.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y IMT PST SST AST A IS-NR Active ----- ALARM STATUS = No Alarms. IMT PST SST AST B IS-NR Active ----- ALARM STATUS = No Alarms. Command Completed. ;
20 ☐	Issue the card status command to identify the MUX cards in the system.	**rept-stat-gpl:gpl=*hipr2***
21 ☐	Response to the command is displayed. Record the CARD locations for all MUX cards in the system not running the APPROVED version of the GPL.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL HIPR2 XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR2 XX10 YYY-YYY-YYY ALM XXX-XXX-XXX XXX-XXX-XXX HIPR2 XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR2 XX10 YYY-YYY-YYY ALM XXX-XXX-XXX XXX-XXX-XXX HIPR2 XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR2 XX10 YYY-YYY-YYY ALM XXX-XXX-XXX XXX-XXX-XXX HIPR2 XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR2 XX10 YYY-YYY-YYY ALM XXX-XXX-XXX XXX-XXX-XXX Command Completed. ;
22 ☐	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.	**init-flash:sloc=1110:eloc=*XX*10:code=appr:gpl=hipr2** (Where *XX* = is a last shelf number with a spare MUX being flashed.) Use the following command at the time of flashing only 1 card: **init-flash:loc=XX10:code=appr:gpl=hipr2**
23 ☐	Response to the flash initialization is shown.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y init-flash:loc=XX10:code=appr:gpl=hipr2 Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y FLASH Memory Download for card XX10 Started. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y FLASH Memory Download for card XX10 Completed. ;
24 ☐	Enter the command to initialize the current bus.	**init-mux:bus=b**
25 ☐	Response to the initialization command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 5080.0014 CARD XX10 HIPR2 Card is present ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 5081.0014 CARD YY10 HIPR2 Card is present ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y * 5082.0004 * GPL SYSTEM HIPR2 Card is running non-activated GPL
26 ☐	Issue the command to display imt bus status.	**rept-stat-mux**

Procedure 22: Upgrading Spare HIPR2 cards

27 ☐ Response to the MUX status command is displayed.

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    CARD   TYPE       PST            SST        AST         BITRATE
    1109   HIPR2      IS-NR          Active     -----       HIGH
    1110   HIPR2      IS-NR          Active     -----       HIGH
    1209   HIPR2      IS-NR          Active     -----       HIGH
    1210   HIPR2      IS-NR          Active     -----       HIGH
    1309   HIPR2      IS-NR          Active     -----       HIGH
    1310   HIPR2      IS-NR          Active     -----       HIGH
    Command Completed.
;
```

28 ☐ Issue the command to display imt bus status.

```
rept-stat-imt
```

29 ☐ Response to the card status command is displayed.

☐ Verify that both imt buses are IS-NR.

If either bus is not IS-NR Stop this procedure and contact My Oracle Support.

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y
     IMT    PST            SST        AST
      A     IS-NR          Active     -----
      ALARM STATUS       = No Alarms.

     IMT    PST            SST        AST
      B     IS-NR          Active     -----
      ALARM STATUS       = No Alarms.
    Command Completed.
;
```

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

```
act-flash:sloc=1110:eloc=XX10:gpl=hipr2
```
(Where *XX* is a last shelf number with spare MUX being flashed)

Use the following command at the time of flashing only 1 card:
```
act-flash:loc=XX10:gpl=hipr2
```

31 ☐ Response to the activate command is displayed.

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    FLASH Memory Activation for card 1110-XX10 Started.
;
    XX.x.x.x.x-YY.y.y

    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
*   2395.0002  * GPL SYSTEM HIPR2        Card is not running approved GPL
;

    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    FLASH Activation for cards 1110 - XX10 completed.
    LOC YY10 : FLASH OPERATION COMPLETED
    LOC XX10 : FLASH OPERATION COMPLETED

    ALL CARD RESULTS PASSED
;

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

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

```
rept-stat-gpl:gpl=hipr2
```

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

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

    APPL       CARD      RUNNING            APPROVED           TRIAL
    HIPR2      XX09      XXX-XXX-XXX        XXX-XXX-XXX        XXX-XXX-XXX
    HIPR2      XX10      XXX-XXX-XXX        XXX-XXX-XXX        XXX-XXX-XXX
    HIPR2      XX09      XXX-XXX-XXX        XXX-XXX-XXX        XXX-XXX-XXX
    HIPR2      XX10      XXX-XXX-XXX        XXX-XXX-XXX        XXX-XXX-XXX
    HIPR2      XX09      XXX-XXX-XXX        XXX-XXX-XXX        XXX-XXX-XXX
    HIPR2      XX10      XXX-XXX-XXX        XXX-XXX-XXX        XXX-XXX-XXX
    HIPR2      XX09      XXX-XXX-XXX        XXX-XXX-XXX        XXX-XXX-XXX
    HIPR2      XX10      XXX-XXX-XXX        XXX-XXX-XXX        XXX-XXX-XXX
    Command Completed.
;
```

Procedure 22: Upgrading Spare HIPR2 cards

34 ☐	Repeat steps 1-33 until all spare HIPR2 cards have been flashed.	

Procedure 23: Verifying All Databases

S T E P #	This procedure verifies the databases on the fixed disk and the removable media. 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 information.	`rept-stat-db:display=all`
2 ☐	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' (except the E5-MDAL), 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. ☐ If the STDBY databases are not coherent or not at the correct level, repeat Procedure 3, step 8. ☐ Verify that the MPS databases are coherent.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (ACTV) TDM 1116 (STDBY) 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-RMV 1113 - - - - - - TDM-CRNT 1114 Y N XXX 06-04-19 12:13:02 - TDM-BKUP 1114 Y - YYY 06-04-18 16:11:18 DIFF LEVEL OAM-RMV 1115 Y - YYY 06-04-18 16:11:18 DIFF LEVEL OAM-USB 1115 - - - - - - TDM-CRNT 1116 Y N XXX 06-04-19 12:13:02 - TDM-BKUP 1116 Y - YYY 06-04-18 16:11:18 DIFF LEVEL E5MDAL 1117 Y - YYY 06-04-18 16:11:18 DIFF LEVEL EPAP A (ACTV) C BIRTHDATE LEVEL EXCEPTION - ----------------- ---------- -------------- PDB 03-09-04 15:09:38 418231879 - RTDB Y 03-09-04 15:09:38 418231879 - RTDB-EAGLE 06-02-06 22:13:06 418231879 - EPAP B (STDBY) C BIRTHDATE LEVEL EXCEPTION - ----------------- ---------- -------------- PDB 03-09-04 15:09:38 418231879 - RTDB Y 03-09-04 15:09:38 418231879 - RTDB-EAGLE 06-02-06 22:13:06 418231879 - EAGLE RTDB REPORT CARD/APPL LOC C BIRTHDATE LEVEL EXCEPTION IN-SRVC --------- ---- - ----------------- ---------- ------------ ----------- VSCCP 1107 Y 06-02-06 22:13:06 418231879 - 0d 4h 33m VSCCP 1111 Y 06-02-06 22:13:06 418231879 - 0d 4h 33m ;
3 ☐	When the command completes, remove the target-release RMD from the drive slot.	**Store the RMD in a safe location.**

Procedure 24: Session 2 Completion

S T E P #	This procedure resumes measurement collection. 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 status command for troubles.	**REPT-STAT-TRBL**
2 ☐	Response to command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y SEQN UAM AL DEVICE ELEMENT TROUBLE TEXT 0329.0048 * TERMINAL 15 Terminal failed 0330.0048 * TERMINAL 16 Terminal failed 0006.0002 * GPL SYSTEM XXXX Card is not running approved GPL 0331.0176 * SECULOG 1116 Stdby security log-upload required 0332.0308 *C SYSTEM Node isolated due to SLK failures Command Completed. ;
☐	If UAM 0002 is present where ***XXXX*** is a flash GPL (i.e. BLMCAP or BLIXP), record it below: _____ _____	
☐	If any GPL is recorded contact My Oracle Support and report the GPL alarm.	

→ 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 I.] 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

Complete this section only if there is a problem and it is desired to revert 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

Complete 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 complete Procedure 31 through Procedure 35.

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 31 through procedure 35)
- Follow the normal recovery procedure A, B or C

Procedure 25: Revert IPS (ENET-B) cards on VxWorks6.4

S T E P #	This procedure is to revert the IPSM cards to VxWorks6.4. Complete 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**.	
1 ☐	If source release is 46.5 or prior, issue the card status command.	**REPT-STAT-CARD:APPL=IPS**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX IPSM IPSHC IS-NR Active ---- XXXX XXX-XXX-XXX IPSM IPSHC IS-NR Active ---- Command Completed. ;
3 ☐	For each card listed above, issue the GPL status commend.	**REPT-STAT-GPL:LOC=*XXXX*** (Where ***XXXX*** is the location of the IPSM card)
4 ☐ ☐	Response to the GPL status command is displayed. If card is running BLDC32, go to next step. Otherwise repeat Step 3 for	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL IPSHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLDC32** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;

	next IPSM card listed in Step 2.	
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.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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. 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.
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.x-YY.y.y FLASH Memory Activation for card XXXX Started. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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:ssc TTTT EAGLE XX.x.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)
14 ☐ ☐	Response to GPL status command. Verify that IPSM card is running BLMCAP flash GPL.	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 IPSHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLMCAP** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY 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 26: Revert IPSM application running on SLIC to VxWorks6.4

S T E P #	This procedure reverts the SLIC card running the IPS application to VxWorks6.4. Complete 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**.	
1 ☐	If source release is 46.5 or prior, issue the card status command.	**REPT-STAT-CARD:APPL=IPS**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC IPSHC IS-NR Active ---- XXXX XXX-XXX-XXX SLIC IPSHC IS-NR Active ---- Command Completed. ;
3 ☐	For each card with type equal to SLIC listed above, issue the GPL status commend.	**REPT-STAT-GPL:LOC=*XXXX*** (Where ***XXXX*** is the location of the IPSM/SLIC card slot listed in previous step.)
4 ☐ ☐	Response to the card status command is displayed. If card is running BLSL932, go to next step Otherwise repeat Step 3 for next SLIC card listed in Step 2.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL IPSHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLSL932** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
5 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=*XXXX*** (Where ***XXXX*** is the location of the IPSM/SLIC card)
6 ☐	Response to the inhibit command is displayed	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; **Note**: Wait for the card to boot and return to the IMT bus.
7 ☐	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)
8 ☐ ☐	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 **BLSLC32** Card is running non-activated GPL ; **Note:** Wait for card to boot and return to the IMT bus.

Procedure 26: Revert IPSM application running on SLIC to VxWorks6.4

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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
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.	eaglestp YY-MM-DD hh:mm:ssc TTTT EAGLE XX.x.x.x.x-YY.y.y 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. Verify that IPSM/SLIC card is running BLSLC32 flash GPL.	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 IPSHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLSLC32** YYY-YYY-YYY XXX-XXX-XXX YYY-YYY-YYY 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 Step2.	**Note:** Wait till this flashed IPSM/SLIC card to complete reloading before proceeding to next step.

Procedure 27: Revert MCPM cards on VxWorks6.4

S T E P #	This procedure is to revert the MCPM cards to VxWorks6.4. Complete 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**.	
1 ☐	If source release is 46.5 or prior, issue the card status command.	**REPT-STAT-CARD:APPL=MCP**
2 ☐ ☐	Response to the card status command is displayed. .	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX MCPM MCPHC IS-NR Active ---- XXXX XXX-XXX-XXX MCPM MCPHC IS-NR Active ---- Command Completed. ;
3 ☐	For each card listed above, issue the GPL status commend.	**REPT-STAT-GPL:LOC=XXXX** (Where ***XXXX*** is the location of the MCPM card)
4 ☐ ☐	Response to the card status command is displayed. If card is running BLDC32, go to next step. Otherwise repeat Step 3 for next MCPM card listed in step 2.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL MCPHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLDC32** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
5 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=*XXXX*** (Where ***XXXX*** is the location of the MCP 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.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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 MCPM 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. 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.
9 ☐	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)

Procedure 27: Revert MCPM cards on VxWorks6.4

10 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
11 ☐	Run the target-release GPL on the MCPM card	**ALW-CARD:LOC=*XXXX*** (Where *XXXX* is the location of the MCP card used in the previous command)
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 ☐	Issue command to report the GPLs running on the MCPM card.	**REPT-STAT-GPL:LOC=*XXXX*** (Where *XXXX* is the location of the MCP card used in the previous command)
14 ☐ ☐	Response to GPL status command. Verify that MCPM card is running BLMCAP flash GPL.	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 ---------- **BLMCAP** YYY-YYY-YYY XXX-XXX-XXX YYY-YYY-YYY 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 MCPM card to complete reloading before proceeding to next step.

Procedure 28: Revert MCPM application running on SLIC card to VxWorks6.4

S T E P #	This procedure is to revert the SLIC card with MCPM application to VxWorks6.4. Complete 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**.	
1 ☐	If source release is 46.5 or prior, issue the card status command.	**REPT-STAT-CARD:APPL=MCP**
2 ☐	Response to the card status command is displayed. .	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC MCPHC IS-NR Active ---- XXXX XXX-XXX-XXX SLIC MCPHC IS-NR Active ---- Command Completed. ;
3 ☐	For each MCPM/SLIC card listed above, issue the GPL status commend.	**REPT-STAT-GPL:LOC=*XXXX*** (Where ***XXXX*** is the location of the MCPM/SLIC card slot listed in previous step.)card)
4 ☐ ☐	Response to the card status command is displayed. If card is running BLSL932, go to next step Otherwise repeat Step 3 for next card in above list in step 2.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL MCPHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLSL932** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
5 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=XXXX** (Where ***XXXX*** is the location of the MCPM/SLIC card used in the previous command).
6 ☐	Response to the inhibit command is displayed	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; **Note**: Wait for the card to boot and return to the IMT bus.
7 ☐	Issue flash command to download target-release flash to the MCPM card.	**INIT-FLASH:LOC=XXXX:CODE=APPR:GPL=BLSLC32** (Where ***XXXX*** is the location used in the previous command.)
8 ☐ ☐	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 **BLSLC32** 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 MCPM card used in the previous command)

Procedure 28: Revert MCPM application running on SLIC card to VxWorks6.4

10 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
11 ☐	Run the target-release GPL on the MCPM card	**ALW-CARD:LOC=*XXXX*** (Where *XXXX* is the location of the MCPM\SLIC card used in the previous command)
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*** (Where *XXXX* is the location of the MCPM card used in the previous command.)
14 ☐ ☐	Response to GPL status command. Verify that MCPM/SLIC card is running BLSLC32 flash GPL.	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** YYY-YYY-YYY XXX-XXX-XXX YYY-YYY-YYY 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 Step2.	**Note:** Wait till this flashed MCPM/SLIC card to complete reloading before proceeding to next step.

Procedure 29: Revert the MASP card to VxWorks6.4

S T E P #	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**.	
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**
2 ☐ ☐	Response to the card status command is displayed. Record the MASP in the standby role: Standby: 1113 or 1115	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.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. ;
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-YY.yy.y GPL CARD RUNNING APPROVED TRIAL OAMHC *XXXX* XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLDC32** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-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.x-YY.y.y Card is inhibited. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.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.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.x-YY.y.y PASS: Command sent to card ;

Procedure 29: Revert the MASP card to VxWorks6.4

11 ☐	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=*XXXX*:MODE=RPLCEBL:BITS=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.	**INIT-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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
19 ☐	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)
20 ☐	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. ;
21 ☐	Issue command to report the status of the Standby MASP.	**REPT-STAT-CARD:lOC=*XXXX***

Procedure 29: Revert the MASP card to VxWorks6.4

22 ☐ ☐	Response from the retrieve command is displayed. Verify that Standby MASP card running is running BLMCAP flash GPL.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX E5MCAP OAMHC IS-NR Standby ----- ALARM STATUS = No Alarms. BLMCAP GPL version = YYY-YYY-YYY IMT BUS A = Conn IMT BUS B = Conn CURRENT TEMPERATURE = 33C (92F) PEAK TEMPERATURE: = 33C (92F) [17-10-14 00:30] Command Completed. ;
23 ☐	If this is the first pass through this procedure, issue command to boot the active MASP. Otherwise, go to Step 29.	**INIT-CARD:LOC=*YYYY*** (Where ***YYYY*** is the location of the active MASP.)
24 ☐	Response to card initialization is shown.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Init Card command issued to card YYYYY ;
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. Ignore any login failure message.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y User logged in on terminal *UU*. ; ? Login failures since last successful LOGIN Last successful LOGIN 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)
28 ☐	Response to print capture command is displayed. Repeat Steps 1 – 22 for the formerly active MASP.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Scroll Area Output will be echoed to Port *P*. ;
29 ☐	Issue the command to display the cards running with BLDC32 flash GPL	**REPT-STAT-GPL:GPL=BLDC32**
30 ☐ ☐	Response from the GPL status command is displayed. Verify that no cards are displayed.	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 Command Completed. ;

6.3 Recovery Procedure A

Procedure 30: Load and Run Source OAM

S T E P #	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 31 - 35 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, complete this procedure: After the completion of Procedure 312, Procedure 323, Procedure 334, Procedure 345(but not Procedure 356).

1 ☐	If a USB drive is present in the system, remove it.	
2 ☐	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.	
3 ☐	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.
4 ☐	Issue the command to retrieve BLMCAP application data.	`rtrv-gpl:gpl=blmcap`

5 ☐	Response to rtrv-gpl command is displayed.
	
	Record the "REMOVE TRIAL" version:
	
	_____
		`eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y`
		`GPL Auditing ON`
		
		`GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL`
		`BLMCAP 1114 xxx-xxx-xxx xxx-xxx-xxx yyy-yyy-yyy ----------`
		`BLMCAP 1116 xxx-xxx-xxx xxx-xxx-xxx yyy-yyy-yyy xxx-xxx-xxx`
		`;`

6 ☐	Issue the command to change the gpl.	`chg-gpl:gpl=blmcap:ver=xxx-xxx-xxx` *(Where xxx-xxx-xxx is the GPL version recorded in the previous step)*

7 ☐	Response to chg-gpl command is displayed.	`eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y`
		`BLMCAP upload to 1116 completed`
		`BLMCAP upload to 1114 completed`
		`System Release ID table upload to 1116 completed`
		`System Release ID table upload to 1114 completed`
		`;`

8 ☐	Issue the report card status command.	`rept-stat-card:appl=oam`

Procedure 30: 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 _____[12]	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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. ;
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. Ensure that the release shown in the banner is the source release after the MASP becomes active again.	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 ; 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]	

[12] The Standby MASP may report IS-ANR (and the Standby TDM may report 00S-MT|Isolated.) If so, check LEDs on the card.

[13] Command REPT-STAT-GPL:DISPLAY=ALL can be used to verify this step.

6.4 Recovery Procedure B

Procedure 31: Full Fallback using Spare E5-MASP

S T E P #	Perform the recovery procedure if directed to do so by My Oracle Support when failure occurs in Procedure 8, Step 1, Item C throughProcedure 10. This procedure is a full fallback to the source-release on the spare E5-MASP. 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 31 - 35 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, complete this procedure.

1 ☐	If upgrade using the fixed disk method, use Procedure 323.	Only perform this procedure if directed by My Oracle Support.	
2 ☐	Issue the report card status command.	`rept-stat-card:appl=oam`	

3 ☐ ☐	Response to the card status command is displayed.
	
	Determine MASP activity. Record which MASP is Active and Standby.
	
	Record the card locations of both sets of MASPs:
	
	Act MASP _____
	
	Stby MASP _____
	
	For this sample output, 1113 is active and 1115 is standby.
		`eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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 -----`
		`;`	

4 ☐	Remove USB drive from system if present.		
5 ☐	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.
6 ☐	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	

Procedure 31: Full Fallback using Spare E5-MASP

7 ☐	After the standby MASP is available, issue the command to initialize the *active* MASP.	**init-card:loc=*XXXX*** (Where ***XXXX*** is the location of the ACTIVE MASP slot)
8 ☐	Response to command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y init-card:loc=XXXX Command entered at terminal #10. ; eaglestp 99-01-02 08:28:34 EST Rel XX.x.x-XX.x.x * 0261.0013 * CARD XXXX OAMHC Card is isolated from the system ASSY SN: xxxxxxxx ; 5038.0014 CARD XXXX OAMHC Card is present ASSY SN: xxxxxxxx ;
9 ☐	Issue the command to log in to the system.	**login:uid=*XXXXXX*** (Where *XXXXXX* is a valid login ID)
10 ☐	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
11 ☐	Inhibit the standby MASP.	**INH-CARD:LOC=*XXXX*** (Where *XXXX* is location of standby MASP)
12 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
13 ☐	Put the E5-MASP system in simplex mode.	☐ 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). ☐ Init-card:loc=XXXX (Where XXXX is the location of the ACTIVE MASP slot) ☐ Wait for the active OAM to return to service and enter simplex mode.
14 ☐	Issue the retrieve GPL command to verify source-release GPLs.	**rtrv-gpl**
15 ☐	Response to the retrieve command is displayed. ☐ Verify that the GPL versions in REMOVE TRIAL column and RELEASE column match those in Section 1.3 for "Source- Release GPLs." Example here has location 1114 as the Active MASP slot.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y GPL Auditing OFF APPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL SS7ANSI 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7ANSI 1116 ---------- ---------- ---------- ---------- ATMANSI 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ATMANSI 1116 ---------- ---------- ---------- ---------- CCS7ITU 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX CCS7ITU 1116 ---------- ---------- ---------- ---------- SS7GX25 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7GX25 1116 ---------- ---------- ---------- ---------- IMT 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT 1116 ---------- ---------- ---------- ---------- BPHCAP 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHCAP 1116 ---------- ---------- ---------- ---------- ;
16 ☐	Issue the command to retrieve measurement setup.	**rtrv-meas-sched**

Procedure 31: Full Fallback using Spare E5-MASP

17 ☐	Response to retrieve command is displayed. Record if collection is on or off: _____ If COLLECT=ON, continue to next step. Otherwise, go to Step 20.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y COLLECT = off SYSTOT-STP = (off) SYSTOT-TT = (off) COMP-LNKSET = (off) COMP-LINK = (off) MTCD-STP = (on) MTCD-LINK = (on) MTCD-LNKSET = (on) ;
18 ☐	Issue the command to turn off measurement collection.[14]	**chg-meas:collect=off**
19 ☐	Response to the change command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y chg-meas:collect=off Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y CHG-MEAS: MASP A – COMPLTD ;
20 ☐	Inhibit the standby MASP.	**inh-card:loc=*XXXX*** (Where *XXXX* is location of standby MASP)
21 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
22 ☐	Bring the standby E5-MASP system back on the bus.	☐ 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.)
23 ☐	Issue the command to initialize the flash memory.	**init-flash:code=appr:loc=*XXXX*** Where *XXXX* is the location for the Standby MASP.
24 ☐	Response to the init flash command is displayed. Wait for the downloading to complete.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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.x-YY.y.y FLASH Memory Download for card xxxx completed. ;
25 ☐	Issue the command to activate the flash on the standby MASP.	**act-flash:loc=*XXXX*** (**Where *XXXX* is the location for the Standby MASP .**)
26 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y act-flash:loc=XXXX Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
27 ☐	Issue the command to allow card.	**alw-card:loc=*XXXX*** Where *XXXX* is the location for the Standby MASP.

[14] If completed, this step causes the database level to increment.

Procedure 31: 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.x-YY.y.y Card has been allowed. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
29 ☐	Issue the report card status command.	**rept-stat-card:appl=oam**
30 ☐ ☐	Response from the retrieve command is displayed. Verify that the standby MASP is running the upgrade source release GPL.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y 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. If the ENTRIES column displays any value other than 0 for the Standby ROLE, proceed to the next step. Otherwise, go to step 40	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y rept-stat-seculog Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y -- SINCE LAST UPLOAD -- OLDEST NEWEST LAST LOC ROLE ENTRIES %FULL OFLO FAIL RECORD RECORD UPLOAD 1114 Active 19 1 No No 99-01-01 99-01-01 00-00-00 13:43:37 14:08:12 00:00:00 1116 Standby 0 0 No No 99-01-01 99-01-01 99-01-01 13:39:39 13:43:10 14:07:59 ;
33 ☐	Issue the command to copy the security log from the standby disk.	**copy-seculog:slog=stb:dfile=upg.procC**
34 ☐ ☐	Response to the copy security log command is displayed. If this command fails, proceed to next step. Otherwise, go to Step 40.	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 0468.0177 SECULOG 111X Security log exception cleared ;
35 ☐	Issue the command to display the FTA directory.	**disp-fta-dir**
36 ☐ ☐	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	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.	**dlt-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 dlt-fta:all=yes:loc=XXXX Command entered at terminal #nn. ;
39 ☐	Repeat Steps 31-34	

Procedure 31: Full Fallback using Spare E5-MASP

40 ☐ Issue the command to copy to the standby disk.

copy-disk:dloc=*XXXX*:force=yes:format=yes
(Where *XXXX* is the location of the STANDBY TDM)

41 ☐ Response to the copy-disk command is displayed.

```
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
    Copy-disk (fixed): from active (YYYY) to standby (XXXX) started.
    Extended processing required, please wait.
;
```

☐ Wait for the card reload to complete.

```
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
    Copy-disk (fixed): from active (XXXX) to standby (XXXX) complete.
    Measurements may be allowed now if desired.
;
```

If this is the second time performing this step, go to Step 49. Otherwise continue.

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

```
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
    rept-stat-card
    Command entered at terminal #10.
;
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
    CARD   VERSION      TYPE    APPL       EST            SST         AST
    1101   XXX-XXX-XXX  DSM     SCCPHC     IS-NR          Active      -----
    1102   XXX-XXX-XXX  DSM     SCCPHC     IS-NR          Active      -----
    1103   XXX-XXX-XXX  TSM     GLSHC      IS-NR          Active      -----
    1104   XXX-XXX-XXX  TSM     GLSHC      IS-NR          Active      -----
    1105   XXX-XXX-XXX  LIMDS0  SS7ML      IS-NR          Active      -----
    1111   XXX-XXX-XXX  IPSM    IPSHC      IS-NR          Active      -----
    1113   XXX-XXX-XXX  E5MCAP  OAMHC      IS-NR          Active      -----
    1114   -----------  E5TDM   -------    IS-NR          Active      -----
    1115   XXX-XXX-XXX  E5MCAP  OAMHC      IS-NR          Standby     -----
    1116   -----------  E5TDM   -------    IS-NR          Active      -----
    1117   -----------  E5MDAL  -------    IS-NR          Active      -----
    1201   XXX-XXX-XXX  LIMDS0  SS7ML      IS-NR          Active      -----
    1202   XXX-XXX-XXX  LIMDS0  SS7ML      IS-NR          Active      -----
    1203   XXX-XXX-XXX  DCM     IPLHC      IS-NR          Active      -----
    1204   XXX-XXX-XXX  DCM     IPLHC      IS-NR          Active      -----
    1211   XXX-XXX-XXX  DCM     IPGHC      IS-NR          Active      -----
    1218   XXX-XXX-XXX  TSM     GLSHC      IS-NR          Active      -----
    Command Completed.
;
```

☐ Verify that the GPL versions that are displayed in the "VERSION" column are correct; see Section 1.3.

☐ Record the location of the Standby MASP:

MASP _____

44 ☐ Inhibit the standby MASP.

inh-card:loc=*XXXX*

(Where *XXXX* is location of standby MASP)

45 ☐ Response to the command is displayed.

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    Card has been inhibited.
;
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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 31: Full Fallback using Spare E5-MASP

47 ☐	Insert the source-release media into the system.	Insert an USB drive in the standby E5-MCAPs. Once inserted, allow time for the source-release RMD to be detected by the system
48 ☐	Repeat steps 23 - 41.	After completing Step 41 the second time, continue to Step 49.
49 ☐	If steps 18 & 19 were completed, issue the command to turn the measurements collection on.	`chg-meas:collect=on`

50 ☐	Response to change measurement command is displayed.	`eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y`
		`chg-meas:collect=on`
		`Command entered at terminal #10.`
		`;`
		
		`eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y`
		`CHG-MEAS: MASP A - COMPLTD`
		`;`

51 ☐	Complete Procedure 29.	
52 ☐	If this completes the recovery as directed by My Oracle Support, verify the system with the EAGLE health check [1]. Otherwise continue with Recovery Procedure C	**If failure occurred prior to entering Phase 3, recovery is complete.**

Procedure 32: Full Fallback using Fixed Disk as OAM conversion workspace – Case 1

S T E P #	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 31 - 35 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, complete this procedure: If failure occurred between Procedure 6 and Procedure 8, Step 1, Table 18, Item E.

1 ☐	Only perform this procedure if directed by My Oracle Support.	
2 ☐	If present, remove the target-release media from the system.	
3 ☐	Issue the command to initialize both MASP cards.	`init-card:appl=oam`
4 ☐	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 ;
☐	Ensure that the release shown in the banner is the source release after the MASP becomes active again.	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 ; 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 ;
5 ☐	**Procedure 29.**	

Procedure 33: 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 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 31 - 35 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, complete this procedure: If failure occurred between Procedure 8, Step 1, Table 18, Item F and Procedure 8, Step 1, Table 18, Item I.

1 ☐	Remove USB drive from system if present.	
2 ☐	Issue the command to display database status during upgrades.	`act-upgrade:action=dbstatus`

3 ☐	Response to the command is displayed.
	
	Look at the status field and determine the loc of the TDM marked "UPG 2".
		`eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Upg Phase X`
		`; DATABASE STATUS: >> NOT OK (DMS) <<`
		`TDM 1114 ( STDBY) TDM 1116 ( ACTV )`
		`C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP`
		`- -------- ---------- - -------- ----------`
		`FD BKUP Y nnnnnn - - Y nnnnnn YY-MM-DD hh:mm:ss zzz`
		`FD CRNT Y nnnnnn Y nnnnnn`
		`MCAP 1113 MCAP 1115`
		`- -------- - --------`
		`RD BKUP - - - - - - - -`
		`USB BKP - - - - - - - -`
		
		`CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS`
		`OAM-RMV 1113 - - - - - -`
		`TDM-CRNT 1114 Y N nnnnnn YY-MM-DD hh:mm:ss ZZZ-ZZZ-ZZZ UPG 2`
		`TDM-BKUP 1114 Y - nnnnnn YY-MM-DD hh:mm:ss ZZZ-ZZZ-ZZZ UPG 2`
		`OAM-RMV 1115 - - - - - -`
		`OAM-USB 1115 - - - - - -`
		`TDM-CRNT 1116 Y N nnnnnn YY-MM-DD hh:mm:ss XXX-XXX-XXX NORMAL`
		`TDM-BKUP 1116 Y - nnnnnn YY-MM-DD hh:mm:ss XXX-XXX-XXX NORMAL`
		
		`INACTIVE PARTITION GROUP`
		`CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS`
		`TDM-CRNT 1114 Y - nnnnnn YY-MM-DD hh:mm:ss XXX-XXX-XXX NORMAL`
		`TDM-BKUP 1114 Y - nnnnnn YY-MM-DD hh:mm:ss XXX-XXX-XXX NORMAL`
		`TDM-CRNT 1116 N - 1 00-00-00 00:00:00 ZZZ-ZZZ-ZZZ NORMAL`
		`TDM-BKUP 1116 N - 1 00-00-00 00:00:00 ZZZ-ZZZ-ZZZ NORMAL`

4 ☐	If the TDM marked in "UPG 2" is the active MASP continue. Otherwise go to step 9.	

Procedure 33: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

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 TTTT PPP XX.x.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 TTTT PPP XX.x.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 TTTT PPP XX.x.x.x.x-YY.y.y User logged in on terminal 10. ; ? Login failures since last successful LOGIN Last successful LOGIN was on port ? on ??-??-?? @ ??:??:??
9 ☐	Issue the command to display active/inactive disk partitions.	**send-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/ksr terminal port specified in, Procedure 1, Step 6)	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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 EST PPP XX.x.x.x.x-YY.y.y Upgrade Phase x ACTIVE OAM Partition Grp Info: num_group = 2 num_partitions_per_group = 2 active_partitions[] = 0 1 inactive_partitions[] = 2 3 ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upgrade Phase x STANDBY OAM Partition Grp Info: num_group = 2 num_partitions_per_group = 2 active_partitions[] = 2 3 inactive_partitions[] = 0 1 ;
11 ☐	Issue the command to swap active/inactive disk partitions.	**send-msg:ds=1:da=h'5d:f=h'48:loc=*YYYY*** (Where *YYYY* is location of active MASP)

Procedure 33: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

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)	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 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'0048 Bus/Ret/Sut = H'0002 Violation Ind = H'0000 User Message sent to location YYYY. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Partition switch PASSED ;
☐	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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y ACTIVE OAM Partition Grp Info: num_group = 2 num_partitions_per_group = 2 active_partitions[] = 0 1 inactive_partitions[] = 2 3 ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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 ;
13 ☐	Inhibit the standby MASP.	**inh-card:loc=*XXXX*** (Where *XXXX* is the location for the Standby MASP.)
14 ☐	Response to the inhibit command is displayed	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card is inhibited. ;
☐	Verify UAM 514 is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.
15 ☐	Issue the command to initialize the flash memory on the standby MASP.[15]	**init-flash:code=appr:loc=*XXXX*** (**Where *XXXX* is the location for the Standby MASP**.)
16 ☐	Response to flash initialization is shown.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y FLASH Memory Download for card xxxx started. ;
☐	Verify UAM 0004 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y FLASH Memory Download for card xxxx completed. ; 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.
17 ☐	Issue the command to activate the flash on the standby MASP.	**act-flash:loc=*XXXX*** (**Where *XXXX* is the location for the Standby MASP .**)
18 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y act-flash:loc=XXXX Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;

[15] The approved flash GPL is the source version.

Procedure 33: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

19 ☐	Issue the command to allow card.	alw-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.x-YY.y.y Card has been allowed. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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. Verify the standby MASP is running the upgrade source release GPLs. Verify that no "ALM" indicator is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y GPL Auditing ON GPL CARD RUNNING APPROVED TRIAL OAMHC 1115 134-074-000 ---------- ---------- BLMCAP 134-070-000 134-070-000 134-070-000 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.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 TTTT PPP XX.x.x.x.x-YY.y.y 5038.0014 CARD XXXX OAMHC Card is present ASSY SN: xxxxxxxx ;
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. Ignore any login failure message.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y User logged in on terminal 10. ; ? Login failures since last successful LOGIN Last successful LOGIN was on port ? on ??-??-?? @ ??:??:??
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 Verify UAM 514 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card is inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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 33: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

30 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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.x-YY.y.y FLASH Memory Download for card xxxx completed. ; 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.
31 ☐	Issue the command to activate the flash on the standby MASP.	act-flash:loc=*XXXX* (Where *XXXX* is the location for the Standby MASP.)
32 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y act-flash:loc=XXXX Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
33 ☐	Issue the command to allow card.	alw-card:loc=*XXXX* (**Where *XXXX* is the location for the Standby MASP.**)
34 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been allowed. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
35 ☐	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**.)
36 ☐ ☐	Response from the status command is displayed. Verify that the standby MASP is running the upgrade source release GPLs. Verify that no "ALM" indicator is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y GPL Auditing ON GPL CARD RUNNING APPROVED TRIAL OAMHC 1115 134-074-000 ---------- ---------- BLMCAP 134-070-000 134-070-000 134-070-000 Command Completed. ;
37 ☐	Complete Procedure 29.	

Procedure 34: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

S T E P #	
	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 31 - 35 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, complete this procedure: If failure occurred between Procedure 8, Step 1, Table 18, Item J and Procedure 10 [End of Session 1].

1 ☐	***** ATTENTION ***** **If this is an incremental upgrade (i.e. the SOURCE release equals the TARGET release, go to Procedure 4, Step 1**. ************************	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).
2 ☐	Remove USB drive from system if present.	
3 ☐	Issue the command to display active/inactive disk partitions.	`send-msg:ds=1:da=h'5d:f=h'47:loc=`*`YYYY`* **(Where *YYYY* is location of active MASP)**

4 ☐	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)
		`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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 XXXX.`
		`;`
		`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upgrade Phase x`
		`ACTIVE OAM Partition Grp Info:`
		`num_group = 2`
		`num_partitions_per_group = 2`
		`active_partitions[] = 2 3`
		`inactive_partitions[] = 0 1`
		`;`
		`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upgrade Phase x`
		`STANDBY OAM Partition Grp Info:`
		`num_group = 2`
		`num_partitions_per_group = 2`
		`active_partitions[] = 2 3`
		`inactive_partitions[] = 0 1`
		`;`

5 ☐	Issue the command to swap active/inactive disk partitions.	`send-msg:ds=1:da=h'5d:f=h'48:loc=`*`YYYY`* **(Where *YYYY* is location of active MASP)**

Procedure 34: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

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)	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 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'0048 Bus/Ret/Sut = H'0002 Violation Ind = H'0000 User Message sent to location XXXX. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Partition switch PASSED ;
☐	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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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 ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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 Verify UAM 514 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card is inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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. Verify UAM 0004 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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.x-YY.y.y FLASH Memory Download for card xxxx completed. ; 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.
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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y act-flash:loc=XXXX Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;

Procedure 34: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

13 ☐ Issue the command to allow card.

alw-card:loc=*XXXX*

(Where *XXXX* is the location for the Standby MASP.)

14 ☐ Response to the command is displayed.

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

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

15 ☐ 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.)

16 ☐ Response from the status command is displayed.

☐ Verify that the standby MASP is running the upgrade source release GPLs.

```
    eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y
    GPL Auditing  ON

    GPL         CARD       RUNNING             APPROVED       TRIAL
    OAMHC69     XXXX       XXX-XXX-XXX         -----------    -----------
          BLDC32           XXX-XXX-XXX         YYY-YYY-YYY    XXX-XXX-XXX

    Command Completed.
;
```

17 ☐ Issue the command to init active location.

init-card:loc=*YYYY*

(Where *YYYY* is location of active MASP)

18 ☐ 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 XXXX OAMHC      Card is isolated from the system
                 ASSY SN:  xxxxxxxx
;
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    5038.0014    CARD XXXX OAMHC      Card is present
                 ASSY SN: xxxxxxxx
;
```

19 ☐ Issue the command to log back in to the system.

login:uid=*XXXXXX*

(Where *XXXXXX* is a valid login ID)

20 ☐ Response to login command is displayed.

Ignore any login failure message.

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

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

21 ☐ Issue the command to display active/inactive disk partitions.

send-msg:ds=1:da=h'5d:f=h'47:loc=*XXXX*

(Where *XXXX* is location of newly active MASP)

22 ☐ 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)

If the standby partition information is not displayed, wait for the standby MASP to return to service and repeat step 21.

```
Command Accepted - Processing
    eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.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 TTTT EAGLE XX.x.x-YY.yy.y Upgrade Phase x
    ACTIVE OAM Partition Grp Info:
    num_group = 2
    num_partitions_per_group = 2
    active_partitions[]   = 0    1
    inactive_partitions[] = 2    3
;
    eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upgrade Phase x
    STANDBY OAM Partition Grp Info:
    num_group = 2
    num_partitions_per_group = 2
    active_partitions[]   = 2    3
    inactive_partitions[] = 0    1
;
```

Procedure 34: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

23 ☐	Issue the command to swap active/inactive disk partitions.	**send-msg:ds=1:da=h'5d:f=h'48:loc=*XXXX*** (Where *XXXX* is location of active MASP)
24 ☐ ☐	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 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.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y 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'0048 Bus/Ret/Sut = H'0002 Violation Ind = H'0000 User Message sent to location YYYY. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Partition switch PASSED ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y ACTIVE OAM Partition Grp Info: num_group = 2 num_partitions_per_group = 2 active_partitions[] = 0 1 inactive_partitions[] = 2 3 ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y STANDBY OAM Partition Grp Info: num_group = 2 num_partitions_per_group = 2 active_partitions[] = 0 1 inactive_partitions[] = 2 3 ;
25 ☐	Inhibit the standby MASP.	**inh-card:loc=*YYYY*** (**Where *YYYY* is the location for the Standby MASP**.)
26 ☐ ☐	Response to the inhibit command is displayed Verify UAM 514 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Card is inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.
27 ☐	Issue the command to initialize the flash memory on the standby MASP.	**init-flash:code=appr:loc=*YYYY*** (Where *YYYY* is the location for the Standby MASP.)
28 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.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.x-YY.y.y FLASH Memory Download for card xxxx completed. ; 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.	**act-flash:loc=*YYYY*** (Where *YYYY* is the location for the Standby MASP.)
30 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;

Procedure 34: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

31 ☐	Issue the command to allow card.	**alw-card:loc=*YYYY*** **(Where *YYYY* is the location for the Standby MASP.)**
32 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been allowed. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
33 ☐	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**.)
34 ☐ ☐	Response from the retrieve command is displayed. Verify that the both MASP are running the upgrade source release GPLs. Verify that no "ALM" indicator is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y GPL Auditing ON GPL CARD RUNNING APPROVED TRIAL OAMHC69 *XXXX* XXX-XXX-XXX ---------- ---------- BLDC32 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed. ;
35 ☐	Insert the Rollback source release GPL media into the active MASP.	Once inserted, allow time for the Rollback source-release GPL RMD to be detected by the system.
36 ☐	Issue the command to retrieve OAMHC69 application data.	**rtrv-gpl:gpl=oamhc69**
37 ☐	Response to rtrv-gpl command is displayed. Record the "REMOVE TRIAL" version: _____	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL OAMHC69 1114 **xxx-xxx-xxx** xxx-xxx-xxx yyy-yyy-yyy ------- OAMHC69 1116 **xxx-xxx-xxx** xxx-xxx-xxx yyy-yyy-yyy **xxx-xxx-xxx** ;
38 ☐	Issue the command to change the gpl.	**chg-gpl:gpl=oamhc69:ver=xxx-xxx-xxx** (where xxx-xxx-xxx is the GPL version recorded in the previous step)
39 ☐	Response to chg-gpl command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y OAMHC69 upload to 1116 completed OAMHC69 upload to 1114 completed System Release ID table upload to 1116 completed System Release ID table upload to 1114 completed ;
40 ☐	Issue the command to initialize both MASP cards.	**init-card:appl=oam**
41 ☐	Issue the command to log in to the system.	**Login:uid=xxxxxx** (Where XXXXXX is a valid login ID)
42 ☐	Issue the report card status command.	**rept-stat-card:appl=oam**

Procedure 34: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

43 ☐	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 _____[16]	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1113 XXX-XXX-XXX E5MCAP OAMHC69 IS-NR Active ----- 1115 XXX-XXX-XXX E5MCAP OAMHC69 IS-NR Standby ----- Command Completed. ;
44 ☐	Remove the Rollback source release GPL media from the active MASP.	**Store RMD in a safe place.**
45 ☐	Wait for DUPLEX mode and repeat step 42 until the standby location is IS-NR in step 43.	
46 ☐	Issue the upgrade activation command.	**ACT-UPGRADE:ACTION=CONVERTSTP:SRC=FIXED**
47 ☐	Load standard TOAMHC69 GPL. Insert Source release media into the active MASP. **Note**: Insert backup USB into PC and rename source release rollback patch GPL OAMHC69.elf to TOAMHC69.elf, and then insert the backup USB into Active MASP card.	Once inserted, allow time for the Rollback source-release GPL RMD to be detected by the system.
48 ☐	Issue the command to retrieve OAMHC69 application data.	**rtrv-gpl:gpl=oamhc69**
49 ☐ ☐	Response to rtrv-gpl command is displayed. Record the "REMOVE TRIAL" version: _____	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL OAMHC69 1114 **xxx-xxx-xxx** xxx-xxx-xxx yyy-yyy-yyy ------- OAMHC69 1116 **xxx-xxx-xxx** xxx-xxx-xxx yyy-yyy-yyy **xxx-xxx-xxx** ;
50 ☐	Issue the command to change the gpl.	**chg-gpl:gpl=oamhc69:ver=xxx-xxx-xxx** (where xxx-xxx-xxx is the standard source GPL version)
51 ☐	Verify patch GPL is in APPROVED column	**RTRV-GPL:GPL=OAMHC69**
52 ☐	Response to chg-gpl command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y OAMHC69 upload to 1116 completed OAMHC69 upload to 1114 completed System Release ID table upload to 1116 completed System Release ID table upload to 1114 completed ;

Procedure 34: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

53 ☐	Issue the command to initialize both MASP cards.	`init-card:appl=oam`
53 ☐	Issue the command to log in to the system.	`Login:uid=xxxxxx` (Where XXXXXX is a valid login ID)
54 ☐	Issue the report card status command.	`rept-stat-card:appl=oam`
55 ☐ ☐	Response from the retrieve command is displayed. Verify that the both MASP are running the upgrade source release GPLs. Verify that no "ALM" indicator is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1113 XXX-XXX-XXX E5MCAP OAMHC69 IS-NR Active ----- 1115 XXX-XXX-XXX E5MCAP OAMHC69 IS-NR Standby ----- Command Completed. ;
56 ☐	Continue to procedure C if directed by the My Oracle Support. Otherwise, verify the system with the EAGLE health check[17]	

[17] Command REPT-STAT-GPL:DISPLAY=ALL can be used to verify this step.

6.5 Recovery Procedure C

Procedure 35: Fall Back Procedure for Network Cards

S T E P #	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.	
1 ☐	Issue the command to report card status.	rept-stat-card
2 ☐	Response to the card status command is displayed. Record all network card applications present for future reference within the procedure. X`	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1101 XXX-XXX-XXX DSM SCCPHC IS-NR Active ----- 1102 XXX-XXX-XXX DCM IPLHC IS-NR Active ----- 1103 XXX-XXX-XXX TSM GLSHC IS-NR Fault ----- 1105 XXX-XXX-XXX DCM IPGHC IS-NR Active ----- 1109 XXX-XXX-XXX HIPR HIPR IS-NR Active ----- 1110 XXX-XXX-XXX HIPR HIPR IS-NR Active ----- 1111 XXX-XXX-XXX MCPM MCPHC IS-ANR Active ----- 1113 XXX-XXX-XXX E5MCAP OAMHC IS-NR Active ----- 1114 ---------- E5TDM ------- IS-NR Active ----- 1115 XXX-XXX-XXX E5MCAP OAMHC IS-NR Standby ----- 1116 ---------- E5TDM ------- IS-NR Active ----- 1117 ---------- E5MDAL ------- IS-NR Active ----- 1201 XXX-XXX-XXX LIMT1 SS7HC IS-NR Active ----- 1202 XXX-XXX-XXX LIMT1 SS7HC IS-NR Active ----- 1209 XXX-XXX-XXX HIPR2 HIPR2 IS-NR Active ----- 1210 XXX-XXX-XXX HIPR2 HIPR2 IS-NR Active ----- 1211 XXX-XXX-XXX DCM IPGHC IS-NR Active ----- 1217 XXX-XXX-XXX TSM GLSHC IS-NR Active ----- 1218 XXX-XXX-XXX IPSM IPSHC IS-NR Active ----- Command Completed. ;
3 ☐	Issue the card status command.	rept-stat-card:appl=mcp
4 ☐	Response to the card status command is displayed. If any MCPM cards are displayed, continue to next step. Otherwise, go to Step 7.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1111 134-064-000 MCPM MCPHC IS-NR Active ----- 1112 134-064-000 MCPM MCPHC IS-NR Active ----- Command Completed. ;
5 ☐	Issue the send message command. Repeat for each MCPM card.	**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.** send-msg:ds=8:da=h'17:f=22:loc=*XXXX* **(Where *XXXX* is location of the MCPM cards display in previous step.)**
6 ☐	Response to the send message command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y System Buffer sent has following attributes : Msg Length = H'0010 Dest Card = H'00f7 Orig Subsys = H'0001 Dest Subsys = H'0001 Orig Appl ID = H'004d Dest Appl ID = H'001d Func ID = H'0016 Bus/Ret/Sut = H'0002 Violation Ind = H'0000 User Message sent to location XXXX. Command Completed. ;

Procedure 35: Fall Back Procedure for Network Cards

7 ☐	If Recovery C is performed from R48.0 to R47.x or earlier release.	Please perform below procedure to force cold restart of IPSM card as there is a SSH key size mismatch between R48.0 and R47.x or earlier release. • Procedure 19: Force cold restart of IPS card during upgrade
8 ☐	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: **ACT-UPGRADE:ACTION=CONVERTSTP:SRC=FIXED** Otherwise, issue the following command: **ACT-UPGRADE:ACTION=CONVERTSTP:SRC=FIXED:THRES=75** (If another thres value is to be used see recommendation #5 in section 1.6)
9 ☐ ☐	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	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase 3 Hardware Validation Test Started [ASM Obsolescence Test for all applications.] [DSM Obsolescence Test for MCP application.] Hardware Validation Test Completed Successfully. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase 3 Starting network conversion... ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase 3 Upgrading MUX card 1109 ; Output continues until the following is displayed: eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase 3 Command Complete : Upgrade action completed successfully ;
10 ☐	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.
11 ☐	If Rollback was performed using the Spare MASPS.	In this scenario steps 8 to 10 will not work. Use the following procedures for fallback of Network cards: • Procedure 36: Restoring Flash-Based Service Cards • Procedure 37: Restoring Flash-Based Link Cards • Procedure 38: Restoring Mux Cards

7. Procedures for cards that failed to complete successful flash during the database conversion

Procedure 36: Restoring Flash-Based Service Cards

S T E P #	This procedure restores Service Cards that are flash based. This group includes IPSHC, MCPHC, DEIRHC[18], ENUMHC, SCCPHCand SIPHC cards. This procedure updates each card with the source release GPLs.	
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.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.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.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y flash-card:code=appr:force=yes:loc=XXXX Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
7 ☐	Issue the command to allow the card[19] if the card is provisioned.	**alw-card:loc=*XXXX*** (Where ***XXXX*** is the card location of the cards determined in Step2) OR **alw-card:loc=*XXXX*:data=persist** (Where *XXXX* is the location of an SCCP card determined in Step2)

[18] EAGLE 47.0 does not support DEIR.

[19] Specifying the DATA=PERSIST parameter for SCCP application cards allows for warm restart if possible.

Procedure 36: Restoring Flash-Based Service Cards

8 ☐

Response to the allow command is displayed.[20]

Wait for the card to finish loading before proceeding (approximately 30 seconds).

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    alw-card:loc=1201
    Command entered at terminal #10.
;
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    Card has been allowed.
;
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    Command Completed.
;
```

9 ☐

Repeat Steps 3 – 8 for each card in the current group that has an alarm.

10 ☐

Repeat steps 1-9 for each group of cards (VSCCP, ISP, MCP, EROUTE, SCCPHC, IPSHC, ERTHC, and SIPHC)

11 ☐

Issue the command to display the card status.

```
rept-stat-card
```

12 ☐

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

☐

For any such card that is not IS-NR or running the correct GPL, repeat Steps 3-4.

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    rept-stat-card
    Command entered at terminal #10.
;
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    CARD   VERSION      TYPE      GPL        PST            SST        AST
    1101   XXX-XXX-XXX  DSM       VSCCP      IS-NR          Active     -----
    1102   XXX-XXX-XXX  DSM       VSCCP      IS-NR          Active     -----
    1103   XXX-XXX-XXX  TSM       GLSHC      IS-NR          Active     -----
    1104   XXX-XXX-XXX  TSM       GLSHC      IS-NR          Active     -----
    1105   XXX-XXX-XXX  LIMDS0    SS7ML      IS-NR          Active     -----
    1109   XXX-XXX-XXX  HIPR      HIPR       IS-NR          Active     -----
    1110   XXX-XXX-XXX  HIPR      HIPR       IS-NR          Active     -----
    1111   XXX-XXX-XXX  LIMT1     SS7HC      IS-NR          Active     -----
    1113   XXX-XXX-XXX  E5MCAP    OAMHC      IS-NR          Active     -----
    1114   -----------  E5TDM     -------    IS-NR          Active     -----
    1115   XXX-XXX-XXX  E5MCAP    OAMHC      IS-NR          Standby    -----
    1116   -----------  E5TDM     -------    IS-NR          Active     -----
    1117   -----------  E5MDAL    -------    IS-NR          Active     -----
    1201   XXX-XXX-XXX  LIMDS0    SS7ML      IS-NR          Active     -----
    1202   XXX-XXX-XXX  LIMDS0    SS7ML      IS-NR          Active     -----
    1203   XXX-XXX-XXX  LIMDS0    SS7ML      IS-NR          Active     -----
    1204   XXX-XXX-XXX  LIMDS0    SS7ML      IS-NR          Active     -----
    Command Completed.
;
```

[20] 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 37: Restoring Flash-Based Link Cards

STEP #		
	Link cards include SS7HC, IPLHC, IPGHC, and ATMHC cards. This procedure updates each card with the source release GPLs. **Note: Steps 3 through 8 are to be repeated for EACH Link card in the system.**	
1 ☐	Issue the command to display the GPL status.	**rept-stat-gpl:gpl=*YYYY*** (Where ***YYYY*** is one of the Flash-Based Link card types listed above.)
2 ☐	Response to the command is displayed. Record the CARD locations for all cards which have alarms: _____ _____ _____ _____ _____ _____ _____	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL XXXXXXX 1201 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXX 1202 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXX 1205 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXX 1207 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXX 1209 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXXXXXX 1211 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed. ;
3 ☐	Issue command to display provisioned links.	**rept-stat-card:loc=*XXXX*** **(**Where *XXXX* is a card in alarm from Step 2.)
4 ☐ ☐	Response displayed. Note which links are IS-NR for this card.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y rept-stat-card:loc=XXXX Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST XXXX XXX-XXX-XXX XXXXXX XXXXXX IS-NR Active ----- ALARM STATUS = * 0021 Clock A for card failed, Clock B normal XXXXXX GPL version = XXX-XXX-XXX IMT BUS A = Conn IMT BUS B = Conn SLK A PST = IS-NR LS=XXXX CLLI=---------- SLK B PST = IS-NR LS=XXXX CLLI=---------- SLK A1 PST = OOS-MT LS=XXXX CLLI=---------- SLK B1 PST = IS-NR LS=XXXX CLLI=---------- SLK A2 PST = IS-NR LS=XXXX CLLI=---------- SLK B2 PST = IS-NR LS=XXXX CLLI=---------- SLK A3 PST = IS-NR LS=XXXX CLLI=---------- SLK B3 PST = IS-NR LS=XXXX CLLI=---------- 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.x-YY.y.y flash-card:code=appr:force=yes:loc=XXXX Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;

Procedure 37: Restoring Flash-Based Link Cards

7 ☐ Issue command to display provisioned links.

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

8 ☐ Response displayed.

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

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    rept-stat-card:loc=XXXX
    Command entered at terminal #10.
;

    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    CARD   VERSION      TYPE      APPL       PST          SST        AST
    XXXX   XXX-XXX-XXX  XXXXXX    XXXXXX     IS-NR        Active     XXXXX
      ALARM STATUS       = **  0228 REPT-E1F:FAC-E1 Port 1 LOS failure
      IMT    VERSION     = XXX-XXX-XXX
      PROM   VERSION     = XXX-XXX-XXX
      IMT BUS A          = Conn
      IMT BUS B          = Conn
      SLK A   PST        = IS-NR           LS=XXXX       CLLI=-----------
      SLK B   PST        = OOS-MT          LS=XXXX       CLLI=-----------
    Command Completed.
;
```

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

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

11 ☐ Issue the command to display the GPL status.

```
rept-stat-card
```

12 ☐ 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.

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    rept-stat-card
    Command entered at terminal #10.
;
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    CARD   VERSION      TYPE    APPL       EST          SST        AST
    1101   XXX-XXX-XXX  DSM     SCCPHC     IS-NR        Active     -----
    1102   XXX-XXX-XXX  DSM     SCCPHC     IS-NR        Active     -----
    1103   XXX-XXX-XXX  TSM     GLSHC      IS-NR        Active     -----
    1104   XXX-XXX-XXX  TSM     GLSHC      IS-NR        Active     -----
    1105   XXX-XXX-XXX  DCM     IPGHC      IS-NR        Active     -----
    1111   XXX-XXX-XXX  IPSM    IPSHC      IS-NR        Active     -----
    1113   XXX-XXX-XXX  E5MCAP  OAMHC      IS-NR        Active     -----
    1114   -----------  E5TDM   -------    IS-NR        Active     -----
    1115   XXX-XXX-XXX  E5MCAP  OAMHC      IS-NR        Standby    -----
    1116   -----------  E5TDM   -------    IS-NR        Active     -----
    1117   -----------  E5MDAL  -------    IS-NR        Active     -----
    1201   XXX-XXX-XXX  LIMDS0  SS7ML      IS-NR        Active     -----
    1202   XXX-XXX-XXX  LIMDS0  SS7ML      IS-NR        Active     -----
    1203   XXX-XXX-XXX  LIMATM  ATMANSI    IS-NR        Active     -----
    1204   XXX-XXX-XXX  IPSM    IPSHC      IS-NR        Active     -----
    Command Completed.
;
```

Procedure 38: Restoring Mux Cards

S T E P #	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: _____ _____ _____ _____ _____ _____ _____	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL YYYY XX09 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX YYYY XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX YYYY XX09 XXX-XXX-XXX ALM 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 ALM XXX-XXX-XXX XXX-XXX-XXX YYYY XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed. ;
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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y init-flash:loc=XX09:code=appr Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y FLASH Memory Download for card XXZZ Started. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y FLASH Memory Download for card XXZZ Completed. ;
5 ☐	Repeat steps 1-4 for each Mux card type on the current bus.	**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=*x*[21]** (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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y init-mux:bus=a Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 5080.0014 CARD XXZZ YYYY Card is present ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 5081.0014 CARD XXZZ YYYY Card is present ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y * 5082.0004 * GPL SYSTEM YYYY Card is running non-activated GPL

[21] Warning: Do not use the FORCE= parameter. Use of this parameter may result in network outage. Analysis of the alternate bus is required.

Procedure 38: Restoring Mux Cards

8 ☐	Issue the command to activate the flash on the next MUX card on the current bus.	**act-flash: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.x-YY.y.y act-flash:loc=XXZZ Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.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.x-YY.y.y rept-stat-gpl:gpl=Y Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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. UPGRADING FLASH-BASED GPL ON NON-IN-SERVICE AND UNPROVISIONED NETWORK CARDS

Procedure 39: Flashing Inactive Cards

S T E P #	This procedure determines any BLIXP, BLMCAP, BLDC64, BLSLC32, or BLSLC64 cards that are inhibited, and updates each card with its target release GPLs. (See section 1.3 for complete list of flash GPLs.)	
1 ☐	Issue the command to display the GPL status.	**rept-stat-gpl:gpl=*XXXX*** (Where ***XXXX*** is the GPL listed in the header of the procedure,)
2 ☐ ☐	Response to the command is displayed. Record any card which shows an alarm: _____ _____ _____	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y rept-stat-gpl:gpl=xxxx Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL XXXXXX 1101 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx XXXXXX 1103 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx XXXXXX 1111 xxx-xxx-xxx ALM xxx-xxx-xxx xxx-xxx-xxx Command Completed. ;
3 ☐	Issue the status command for specific card	**rept-stat-card:loc=*XXXX*** (Where ***XXXX*** is the card location recorded in the previous step.)
4 ☐	Response to the command is displayed. If the PST for the card is OOS-MT-DSBLD or the command is rejected with MTT error E2144[22], go to step 7.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1111 ---------- DSM VSCCP OOS-MT-DSBLD Manual --- ALARM STATUS = No Alarms. BPDCM GPL version = 002-115-000 IMT BUS A = ----- IMT BUS B = ----- SCCP % OCCUP = 0% Command Completed.
5 ☐	Issue the command to inhibit card.	**inh-card:loc=*XXXX***
6 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;
7 ☐	Issue the command to flash all GPLs on the card.	**flash-card:code=appr:loc=*XXXX*** **NOTE**: this command causes the card to boot.
8 ☐	Response to the flash command is displayed. Wait for the card to finish loading before proceeding.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y flash-card:code=appr:loc=XXXX Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ;

[22] E2144 Cmd Rej: Location invalid for hardware configuration

Procedure 39: Flashing Inactive Cards

9 ☐	If steps 5 & 6 were completed, issue the command to allow card.	`alw-card:loc=`*`XXXX`*

10 ☐	Response to the command is displayed.	`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y`
		`Card has been allowed.`
		`;`
		
		`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y`
		`Command Completed.`
		`;`

11 ☐	Repeat Steps 3 – 10 for all cards recorded in step 2.	
12 ☐	Repeat Steps 1 – 11 for each group of Flash-Based cards (see section 1.3.)	

Procedure 40: Flashing the E5-MASP to BLDC32 for Release 47.0.0.0

STEP #	**These steps must be performed before building the E5-MASP SSD media to the Release that is on the Sales Order . This procedure flashes the E5-MASP to BLDC32 for Release 47.0.0.x.** 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 ☐	Install the Customer E5-MASP	Install the Customer E5-MASP in location 1113/1114 or 1115/1116 and verify that the initialization is successful.
2 ☐	System Log In	Make sure the Terminal Interface cable has been installed on J25 (MMI 1) on the Control Shelf and is terminated into the COM port on a PC. Launch the ProComm terminal emulation program from the PC. Make sure the baud rate is set to 9600; the parity-databits-stopbit is set to E-7-1, and the direct connect-Com1 is selected. Download the vt320.kbd file using the Keyboard Editor under the Options tab in ProComm. When the system is powered up, the Terminal display should indicate that Terminal 2 is enabled. Log in to the system by clicking on the login button located at the bottom of the ProComm screen, or by entering the command: `login:uid=eagle password: <default_password>` When prompted, enter your new password, re-enter it to confirm, and press Enter to continue. Verify that a successful login was completed. Set up terminal access using the following commands: • Issue the command chg-secu-trm:trm=1:all=yes • Issue the command logout to log out of Terminal 2. • Move the serial cable on the backplane to Terminal 1. • Log in using the new password

Procedure 40: Flashing the E5-MASP to BLDC32 for Release 47.0.0.0

3 ☐	Identify the Standby E5-MASP	Issue the command **rept-stat-db <Enter>** to identify the Standby E5-MASP tekelecstp 19-01-16 12:03:36 EST EAGLE 46.7.0.0.0-75.27.0 DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP
4 ☐	Flash the Customer E5-MASP to GPL BLDC32 using these commands:	• Issue the command **inh-card:loc=xxxx <Enter>** xxxx is the slot location in the Eagle Control Shelf for the Standby E5-MASP. If TDM (1114) is the Standby E5-MASP, inhibit loc=1113. If TDM (1116) is the Standby E5-MASP, inhibit loc=1115. Standby E5-MASP is inhibited. • Issue the command **init-flash:loc=xxxx: mode=rplcebl:bits=32** BOOTLOADER change request sent to card xxxx. BOOTLOADER change for card xxxx SUCCESSFUL. • Issue the command **init-flash:loc=xxxx:code=appr:gpl=bldc32 <Enter>** Flash memory download for card xxxx completed. E5-MASP will reboot when the flash download has completed. The card will reboot to load the new Approved GPL version • After card has rebooted, issue the command **act-flash:loc=xxxx <Enter>** Flash Activation for card xxxx completed. Issue the command **rept-stat-gpl:loc=xxxx <Enter>** and verify card is flashed to version 140-033-000. tekelecstp 22-11-08 15:41:56 EST EAGLE 46.5.0.0.0-70.37.1 GPL CARD RUNNING APPROVED TRIAL bldc32 xxxx 140-033-000 140-033-000 140-033-000 The Running GPL version is the same as the Approved GPL version, and there is no ALM or + indication displayed on the Standby E5-MASP.
5 ☐	Initialize the Standby E5-MASP	Enter the command **alw-card:loc=xxxx** to initialize the Standby E5-MASP. The Standby E5-MASP will initialize and no longer be inhibited. Card has been allowed.
6 ☐	Identify the ACTIVE E5-MASP.	Issue the command **rept-stat-db <Enter>** to identify the ACTIVE E5-MASP. tekelecstp 19-01-16 12:03:36 EST EAGLE 46.7.0.0.0-75.27.0 DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP

Procedure 40: Flashing the E5-MASP to BLDC32 for Release 47.0.0.0

7 ☐		Enter the command **init-card:loc=xxxx.** xxxx is now the location of the Active E5-MASP. The Active E5-MASP will reboot and the Standby E5-MASP will now become the Active E5-MASP.
8 ☐	Log in to the new Active E5-MASP.	Use login:uid=eagle, password = <password>
9 ☐		Repeat Step 4 to flash the E5-MASP to the Approved version of bldc32. Repeat Step 5 to initialize the E5-MASP. The Standby E5-MASP will initialize and no longer be inhibited. Both E5-MASPs should be flashed with BLDC32 GPL.
10 ☐		Unseat the Customer E5-MASP from slots 1113/1114 or 1115/1116.
11 ☐		Remove the SSD from each E5-MASP and install the SW release using the Media Builder.
12 ☐		Re-install the SSD on the E5-MASP and reseat the E5-MASP in slots 1113/1114 or 1115/1116. The E5-MASP will initialize and boot to the Recovery Console mode.
13 ☐		• Select Option #4 (FLASH BLDC32 FROM APPROVED TDM FIXED DISK) <Enter> to flash the E5-MASP. The E5-MASP will reboot to load the new flash image. When the E5-MASP reboots, it will switch over to the mate E5-MASP, which has booted to Recovery Console mode. • Select Option #4 (FLASH BLDC32 FROM APPROVED TDM FIXED DISK) <Enter> to flash the mate E5-MASP. The E5-MASP will reboot to load the new flash image. When the E5-MASP initializes, wait 12 minutes before logging in.
14 ☐	Login to the Customer E5-MASP	Login to the Customer E5-MASP using the following commands: uid=eagle – password = <default_password> Enter the new password – <password> Enter the new password again to confirm.
15 ☐	Set up terminal access.	Set up terminal access using the following commands: Issue the command **chg-secu-trm:trm=1:all=yes** Issue the command logout to log out of Terminal 2. Move the serial cable on the backplane to Terminal 1. Log in using the new password

Procedure 40: Flashing the E5-MASP to BLDC32 for Release 47.0.0.0

16 ☐	Activate the new flash	After login, issue the command **act-flash:loc=1115 <Enter>** to activate the new flash on the first E5-MASP. Issue the command **act-flash:loc=1113 <Enter>** to activate the flash on the second E5-MASP. Flash Activation for card xxxx completed.

17 ☐	Verify each E5-MASP is flashed to approved version	Issue the command **rept-stat-gpl:gpl=bldc32 <Enter>** and verify each E5-MASP is flashed to version 149-004-000.
		
		If both E5-MASPs are flashed to the Approved version, then flash process is complete.
		`tekelecstp 22-11-19 13:18:55 MST EAGLE 47.0.0.0.0-79.13.0`
		`GPL Auditing ON`
		`GPL CARD RUNNING APPROVED TRIAL`
		`BLDC32 1113 149-004-000 149-004-000 149-004-000`
		`BLDC32 1115 149-004-000 149-004-000 149-004-000`

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 41: Download Target Software Release and Create USB Upgrade Media

S T E P #	This procedure downloads the target software release and creates the USB upgrade media using a Windows PC. 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 ☐	Using a PC running Windows 7 or later, download the target EAGLE Release from the Oracle Software Delivery Cloud (OSDC) to a local directory. Step 2 only needs to be completed if the target EAGLE Release is 47.0 or later.	• Go to 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	Using a PC running Windows 7 or later, download the rollback source release GPL from the Oracle Software Delivery Cloud (OSDC) to a local directory.	• Search for the Oracle Communications EAGLE Rollback Releases 4X.X.X.X.X download package • Accept the Oracle Standard Terms and Restrictions • Click on the link to the zip file for the rollback source release GPL • 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 an oamhc69.elf file

Procedure 41: Download Target Software Release and Create USB Upgrade Media

3 ■	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>
4 ■	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.	**C:\Users\Admin\Desktop\uusb_media><eagle target software release number>** 7-Zip SFX 9.20 Copyright (c) 1999-2010 Igor Pavlov 2010-11-18 Processing archive: C:\Users\Admin\Desktop\uusb_media\46.3.0.0.0-68.12.0.e Extracting 46.3.0.0.0-68.12.0.tar.gz Extracting uusb.clf Extracting mkdosfs.exe Extracting pvu.exe Extracting uusb.exe Everything is Ok
5 ☐	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.	
6 ☐	Insert EAGLE USB media into a PC USB port.	
7 ☐	Goto Start -> Computer and wait for USB drive to be detected. Note its drive letter.	

Procedure 41: Download Target Software Release and Create USB Upgrade Media

8 ☐	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
9 ☐	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. Steps 10-13 only need to be completed if the target release is EAGLE 47.0 or later.	
10 ☐	Prepare the EAGLE USB media to the source release.	Follow steps 1 to 19 of the Procedure 10 from the Upgrade Session 2 section.

Procedure 41: Download Target Software Release and Create USB Upgrade Media

11 ☐	Insert EAGLE USB media into a PC USB port.	
12 ☐	Go to Start > Computer and wait for the USB drive to be detected. Note its drive letter.	
13 ☐	Open a command window as Administrator.	1. On Windows 7, go to Start > All Programs > Accessories 2. Right click on Command Prompt and select Run as Administrator 3. On Windows 8 or 10, go to Start menu 4. Type cmd.exe in the search box 5. Right click on the Command Prompt and select Run as Administrator 6. Change Directory to the path used in step 2
14 ☐	Enter the copy command with the rollback release GPL filename and drive of the USB media, where oamhc69.elf is the name of the rollback release GPL file in the directory from step 2 and E: is the USB media drive letter from above step 12 and toamhc69.elf is the destination file name. Confirm that it is ok to overwrite existing file.	`C:\Users\Admin\Desktop\uusb_media\copy oamhc69.elf e:\toamhc69.elf` Press Y to overwrite existing file.
15 ☐	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 rollback to the target release should a rollback be required.	

Procedure 42: Download Target Release to Inactive Partition

S T E P #	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.**	
1 ☐	Remove the thumb drives from the E5-MASPs.	
2 ☐	If downloading the upgrade target release from an FTP server, continue, otherwise go to step 5.	
3 ☐	Issue the command to display the status of the IPSM cards.	`rept-stat-card:appl=ips`

4 ☐
 	
☐
	Response from the command is displayed.
	
	Verify there is an IPSM card running the IPSHC gpl and that the card is IS-NR. If no such card present in the system this procedure cannot be completed.
		`eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y`
		`CARD  VERSION  TYPE  GPL  PST  SST  AST`
		`1101  XXX-XXX-XXX IPSM  IPSHC  IS-NR  Active  -----`
		`;`

5 ☐	Issue the command to display database status of both TDM partitions.	`act-upgrade:action=dbstatus`

Procedure 42: 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.

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

Disk formatted.

1114 _____

1116 _____

```
   eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase x
    DATABASE STATUS: >> OK <<
            TDM 1114 ( STDBY)                 TDM 1116 ( ACTV )
            C   LEVEL    TIME LAST BACKUP     C   LEVEL    TIME LAST BACKUP
            - -------- -------------------- - -------- --------------------
    FD BKUP Y      XXX YY-MM-DD hh:mm:ss TTTT Y      XXX YY-MM-DD hh:mm:ss TTTT
    FD CRNT Y      XXX YY-MM-DD hh:mm:ss TTTT Y      XXX YY-MM-DD hh:mm:ss TTTT
            MCAP 1113                         MCAP 1115
            - --------                        - --------
    RD BKUP -    -         -        -         -    -         -        -
    USB BKP -    -         -        -         -    -         -        -

    CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION      STATUS
    ---------  ----  -  -  ----------  -----------------  -------------------
    OAM-RMV    1113  -  -      -          -        -          -
    TDM-CRNT   1114  Y  N  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    TDM-BKUP   1114  Y  -  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    OAM-RMV    1115  -  -      -          -        -          -
    OAM-USB    1115  -  -      -          -        -          -
    TDM-CRNT   1116  Y  N  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    TDM-BKUP   1116  Y  -  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL

    INACTIVE PARTITION GROUP
    CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION      STATUS
    ---------  ----  -  -  ----------  -----------------  -------------------
    TDM-CRNT   1114  Y  -  ZZZ         YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  UPG 3
    TDM-BKUP   1114  Y  -  ZZZ         YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  UPG 3
    TDM-CRNT   1116  -  -      -          -        -          -
    TDM-BKUP   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.

```
    eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
    COLLECT        = off
    SYSTOT-STP     = (off)
    SYSTOT-TT      = (off)
    COMP-LNKSET    = (off)
    COMP-LINK      = (off)
    MTCD-STP       = (on)
    MTCD-LINK      = (on)
    MTCD-LNKSET    = (on)
;
```

10 ☐

Issue the command to turn off measurement collection.[23]

```
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.x-YY.y.y
    CHG-MEAS: MASP A - COMPLTD
;
```

12 ☐

Issue the command to display security log status.

```
rept-stat-seculog
```

[23] If completed, this step causes the database level to increment.

Procedure 42: Download Target Release to Inactive Partition

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	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y rept-stat-seculog Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y -- SINCE LAST UPLOAD -- OLDEST NEWEST LAST LOC ROLE ENTRIES %FULL OFLO FAIL RECORD RECORD UPLOAD 1114 Active 19 1 No No 99-01-01 99-01-01 00-00-00 13:43:37 14:08:12 00:00:00 1116 Standby 0 0 No No 99-01-01 99-01-01 99-01-01 13:39:39 13:43:10 14:07:59 ;
14 ☐	Issue the command to copy the security log from the standby disk.	**copy-seculog:slog=stb:dfile=upg.appB**
15 ☐ ☐	Response to the copy security log command is displayed. If this command fails, proceed to next step. Otherwise, go to Step 20.	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 upg.appB on TDM 111Y ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y 0468.0177 SECULOG 111X Security log exception cleared ;
16 ☐	Issue the command to display the FTA directory.	**disp-fta-dir**
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.	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 ;
18 ☐	Issue the command to delete ALL files in the transfer area.	**dlt-fta:all=yes**
19 ☐	Response to the delete command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y dlt-fta:all=yes:loc=XXXX Command entered at terminal #10. ;
20 ☐	Issue the command to format the inactive partition of the standby MASP.	**format-disk:prtngrp=inactive:type=fixed:force=yes:low=no**
21 ☐	Response from the format disk command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Format-disk of system fixed disk started. Extended processing required, please wait. eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Format-disk of system fixed disk complete. ;
22 ☐	Issue the command to display database status of both TDM partitions.	**act-upgrade:action=dbstatus**

Procedure 42: 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 I.]

```
    eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y
    DATABASE STATUS: >> OK <<
            TDM 1114 ( STDBY )                TDM 1116 ( ACTV )
            C   LEVEL    TIME LAST BACKUP     C   LEVEL    TIME LAST BACKUP
            - -------- -------------------- - -------- --------------------
    FD BKUP Y       XXX YY-MM-DD hh:mm:ss TTTT Y       XXX YY-MM-DD hh:mm:ss TTTT
    FD CRNT Y       XXX YY-MM-DD hh:mm:ss TTTT Y       XXX YY-MM-DD hh:mm:ss TTTT
            MCAP 1113                         MCAP 1115
            - --------                        - --------
    RD BKUP -     -          -         -      -     -          -         -
    USB BKP -     -          -         -      -     -          -         -

    CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION      STATUS
    ---------  ----  -  -  ----------  -----------------  -------------------
    OAM-RMV    1113  -  -      -          -         -         -
    TDM-CRNT   1114  Y  N  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    TDM-BKUP   1114  Y  -  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    OAM-RMV    1115  -  -      -          -         -         -
    OAM-USB    1115  -  -      -          -         -         -
    TDM-CRNT   1116  Y  N  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
    TDM-BKUP   1116  Y  -  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL

    INACTIVE PARTITION GROUP
    CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION      STATUS
    ---------  ----  -  -  ----------  -----------------  -------------------
    TDM-CRNT   1114  N  -  1           YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  NORMAL
    TDM-BKUP   1114  N  -  1           YY-MM-DD hh:mm:ss  ZZZ-ZZZ-ZZZ  NORMAL
    TDM-CRNT   1116  -  -   -             -         -         -
    TDM-BKUP   1116  -  -   -             -         -         -

;
```

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.

`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.

```
    eaglestp YY-MM-DD hh:mm:ss TTTT 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
;
    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
;
```

27 ☐

Issue the command to log back in to the system.

`login:uid=`***XXXXXX***

(Where ***XXXXXX*** is a valid login ID)

28 ☐

Response to login command is displayed.

Ignore any login failure message.

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

? 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 42: Download Target Release to Inactive Partition

31 ☐	Issue command to retrieve the FTP servers provisioned on the system.	**rtrv-ftp-serv**
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 for assistance.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y APP IPADDR LOGIN PRIO PATH -------- --------------- --------------- ---- ---- DIST XXX.XX.X.XX aaaaaa Z aaaaaaaaaaaaaaaaaaa No entries found ;
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 E5-MASP.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Download release from zzzzzzz ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Validate database release xx.xx.xx-yy.yy.yy.tar ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Copy database release to inactive partition ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Eagle Release successfully downloaded ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Command Complete : Upgrade action completed successfully ;
35 ☐	Issue the command to display database status of both TDM partitions.	**act-upgrade:action=dbstatus**

Procedure 42: 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.

```
     eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y
     DATABASE STATUS: >> OK <<
             TDM 1114 ( ACTV )                TDM 1116 ( STDBY )
             C   LEVEL    TIME LAST BACKUP     C   LEVEL    TIME LAST BACKUP
             - -------- -------------------- - -------- --------------------
     FD BKUP Y       XXX YY-MM-DD hh:mm:ss TTTT Y       XXX YY-MM-DD hh:mm:ss TTTT
     FD CRNT Y       XXX YY-MM-DD hh:mm:ss TTTT Y       XXX YY-MM-DD hh:mm:ss TTTT
             MCAP 1113                         MCAP 1115
             - --------                        - --------
     RD BKUP -     -          -         -          -     -          -         -
     USB BKP -     -          -         -          -     -          -         -

     CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION       STATUS
     ---------  ----  -  -  ----------  -----------------  ------------------
     OAM-RMV    1113  -  -      -           -         -          -
     TDM-CRNT   1114  Y  N  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
     TDM-BKUP   1114  Y  -  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
     OAM-RMV    1115  -  -      -           -         -          -
     OAM-USB    1115  -  -      -           -         -          -
     TDM-CRNT   1116  Y  N  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
     TDM-BKUP   1116  Y  -  XXX         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL

     INACTIVE PARTITION GROUP
     CARD/APPL  LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION       STATUS
     ---------  ----  -  -  ----------  -----------------  ------------------
     TDM-CRNT   1114  Y  -  1           00-00-00 00:00:00  ZZZ-ZZZ-ZZZ   NORMAL
     TDM-BKUP   1114  Y  -  1           00-00-00 00:00:00  ZZZ-ZZZ-ZZZ   NORMAL
     TDM-CRNT   1116  Y  -  1           00-00-00 00:00:00  ZZZ-ZZZ-ZZZ   NORMAL
     TDM-BKUP   1116  Y  -  1           00-00-00 00:00:00  ZZZ-ZZZ-ZZZ   NORMAL

;
```

37 ☐

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

```
chg-meas:collect=on
```

38 ☐

Response to the change command is displayed.

```
     eaglestp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x.x.x-YY.y.y
     CHG-MEAS: MASP A - COMPLTD
;
```

B.2 Configuring Card-Set Network Conversion Method.

Procedure 43: Preparation for Upgrade to use the Card-Set Network Conversion Method.

S T E P #	This procedure provides the steps to configure the system to use the card-set method during the network conversion portion (Phase 3) of the 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.**	
1 ☐	The system should be running the target release on MASPs of 46.0 or higher.	This procedure should be run After2, Step 40 in E54339 OR Before Procedure 8 in this document.
2 ☐	Issue the card status command to verify the target release GPL is running.	**rept-stat-gpl:gpl=oamhc**
3 ☐ ☐	Response from the status command is displayed. Verify that the version of OAMHC GPL running is 46.0 or later.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase 0 GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL OAMHC 1113 XXX-XXX-XXX ALM YYY-YYY-YYY ----------[24] OAMHC 1115 XXX-XXX-XXX ALM YYY-YYY-YYY ---------- Command Completed. ;
4 ☐	Issue the command to retrieve the upgrade configuration	**rtrv-upgrade-config**
5 ☐ ☐	Response to the retrieve command is displayed. If the Threshold Type has not already been changed to SET, it will be either GROUP or SYSTEM. If the SAK is not set, perform Appendix C. **Note**: GROUP is no longer valid option for Release 46.9 and later, SET is the only option.	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 Configured Upgrade Threshold Type: GROUP Command Completed. ;
6 ☐	Issue the command to change the upgrade configuration	**chg-upgrade-config:threstype=set:srvsets=*X*:limsets=*Y*** **Note:** refer to 1.6, recommendation # 5 for the values of ***X*** and ***Y***.
7 ☐	Response to the command is displayed.	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* Command entered at terminal #tt. Command Completed. ;
8 ☐	Issue the command to retrieve the upgrade configuration	**rtrv-upgrade-config**

[24] Dashes are displayed until GPL auditing has initialized after the activity has been switched, which may take up to two minutes.

Procedure 43: Preparation for Upgrade to use the Card-Set Network Conversion Method.

9 ☐ 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
    Software Access Key entered on system : vbsevhcea7vy5

    Configured Upgrade Threshold Type: SET
      Number of SERVICE Sets: X
      Number of LINK Sets: Y

    Command Completed.
;
```

10 ☐ Issue the command to report the card status.

```
rept-stat-card
```

11 ☐ Response to the command is displayed.

```
    eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x
    CARD   VERSION      TYPE      GPL        PST           SST        AST
    1101   134-076-000  DCM       IPGHC      IS-NR         Active     -----
    1102   134-076-000  DCM       IPGHC      IS-NR         Active     -----
    1103   134-076-000  DCM       IPLHC      IS-NR         Active     -----
    1104   134-076-000  DCM       IPLHC      IS-NR         Active     -----
    1105   134-076-000  DSM       SCCPHC     IS-NR         Active     -----
    1107   134-076-000  MCPM      MCPHC      IS-NR         Active     -----
    1109   134-069-000  HIPR2     HIPR2      IS-NR         Active     -----
    1110   134-069-000  HIPR2     HIPR2      IS-NR         Active     -----
    1111   134-076-000  IPSM      IPSHC      IS-NR         Active     -----
    1112   134-076-000  TSM       GLSHC      IS-NR         Active     -----
    1113   134-076-000  E5MCAP    OAMHC      IS-NR         Standby    -----
    1114   -----------  E5TDM                IS-NR         Active     -----
    1115   134-076-000  E5MCAP    OAMHC      IS-NR         Active     -----
    1116   -----------  E5TDM                IS-NR         Active     -----
    1117   -----------  E5MDAL               IS-NR         Active     -----
    1201   134-076-000  LIMT1     SS7HC      IS-NR         Active     -----
    1205   134-076-000  DSM       SCCPHC     IS-NR         Active     -----
    1207   134-076-000  TSM       GLSHC      IS-NR         Active     -----
    1209   134-069-000  HIPR2     HIPR2      IS-NR         Active     -----
    1210   134-069-000  HIPR2     HIPR2      IS-NR         Active     -----
    1211   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1212   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1213   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1214   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1215   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1216   134-076-000  DCM       IPLHC      IS-NR         Active     -----
    1217   134-076-000  DSM       SCCPHC     IS-NR         Active     -----
    1301   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1302   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1303   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1304   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1305   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1306   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1307   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1308   134-076-000  LIMDS0    SS7ML      IS-NR         Active     -----
    1309   134-069-000  HIPR2     HIPR2      IS-NR         Active     -----
    1310   134-069-000  HIPR2     HIPR2      IS-NR         Active     -----
    1311   134-076-000  MCPM      MCPHC      IS-NR         Active     -----
    1315   134-076-000  IPSM      IPSHC      IS-NR         Active     -----
    1316   134-076-000  IPSM      IPSHC      IS-NR         Active     -----
    1317   134-076-000  DSM       SCCPHC     IS-NR         Active     -----

    Command Completed.
;
```

12 ☐ Issue the upgrade activation command to create card sets.

```
act-upgrade:action=createsets
```

Procedure 43: Preparation for Upgrade to use the Card-Set Network Conversion Method.

13 ☐	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 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. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x Card List: Group = MUX, Set = 1 ========== CARD APPL LINKS TPS ---------- 1209 HIPR2 N/A N/A 1309 HIPR2 N/A N/A 1109 HIPR2 N/A N/A ---------- 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 ========== CARD APPL LINKS TPS ---------- 1210 HIPR2 N/A N/A 1310 HIPR2 N/A N/A 1110 HIPR2 N/A N/A ---------- 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 ========== CARD APPL LINKS TPS ---------- 1205 SCCP N/A 1700* 1207 GLS N/A 0 1315 IPS N/A 0 1311 MCP N/A 0 1105 SCCP N/A 1700* 1111 IPS N/A 0 ---------- 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 ========== CARD APPL LINKS TPS ---------- 1217 SCCP N/A 1700* 1316 IPS N/A 0 1317 SCCP N/A 1700* 1107 MCP N/A 0 1112 GLS N/A 0 ---------- GLS= 50% IPS= 33% MCP= 50% SCCP= 50% ;

Procedure 43: 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 ========== CARD APPL LINKS TPS ---------- 1201 SS7 8 N/A 1213 SS7 2 N/A 1215 SS7 1 N/A 1216 IPLIM 8* N/A 1302 SS7 1 N/A 1304 SS7 1 N/A 1306 SS7 1 N/A 1308 SS7 1 N/A 1101 IPGWY 1* N/A ---------- 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 ========== CARD APPL LINKS TPS ---------- 1211 SS7 4 N/A 1212 SS7 5 N/A 1214 SS7 1 N/A 1301 SS7 1 N/A 1303 SS7 1 N/A 1305 SS7 1 N/A 1307 SS7 1 N/A 1102 IPGWY 1* N/A 1103 IPLIM 0 N/A 1104 IPLIM 0 N/A ---------- 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 xxxx 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 ;
14 ☐	If cards need to be moved to a different set, issue the command to change the upgrade configuration[25]	**chg-upgrade-config:loc=*XXXX*:assignset=*NN*** (Where ***XXXX*** is the card to be moved and ***NN*** is the set it should move to.)
15 ☐	Response to the command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase x chg-upgrade-config:loc=*XXXX*:assignset=*NN* Command entered at terminal #tt. Command Completed. ;
16 ☐	Issue the one of the following commands to retrieve the card-set configuration	**act-upgrade:action=displaysets** **rtrv-upgrade-config:display=sets** **rtrv-upgrade-config:display=limsets** **rtrv-upgrade-config:display=srvsets**

[25] If card is unassigned, it can also be add to a set with this command. Unassigned cards are usually cards that were not IS-NR when the card sets were created.

Procedure 43: Preparation for Upgrade to use the Card-Set Network Conversion Method.

17 ☐	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 ========== CARD APPL LINKS TPS ---------- 1209 HIPR2 N/A N/A 1309 HIPR2 N/A N/A 1109 HIPR2 N/A N/A ---------- 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 ========== CARD APPL LINKS TPS ---------- 1210 HIPR2 N/A N/A 1310 HIPR2 N/A N/A 1110 HIPR2 N/A N/A ---------- 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 ========== CARD APPL LINKS TPS ---------- 1205 SCCP N/A 1700* 1207 GLS N/A 0 1315 IPS N/A 0 1311 MCP N/A 0 1105 SCCP N/A 1700* 1111 IPS N/A 0 ---------- 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 ========== CARD APPL LINKS TPS ---------- 1217 SCCP N/A 1700* 1316 IPS N/A 0 1317 SCCP N/A 1700* 1107 MCP N/A 0 1112 GLS N/A 0 ---------- GLS= 50% IPS= 33% MCP= 50% SCCP= 50% ;

Procedure 43: 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 ========== CARD APPL LINKS TPS ---------- 1201 SS7 8 N/A 1213 SS7 2 N/A 1215 SS7 1 N/A 1216 IPLIM 8* N/A 1302 SS7 1 N/A 1304 SS7 1 N/A 1306 SS7 1 N/A 1308 SS7 1 N/A 1101 IPGWY 1* N/A ---------- 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 ========== CARD APPL LINKS TPS ---------- 1211 SS7 4 N/A 1212 SS7 5 N/A 1214 SS7 1 N/A 1301 SS7 1 N/A 1303 SS7 1 N/A 1305 SS7 1 N/A 1307 SS7 1 N/A 1102 IPGWY 1* N/A 1103 IPLIM 0 N/A 1104 IPLIM 0 N/A ---------- 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 xxxx 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 44: Validate Upgrade Software Access Key

S T E P #	This procedure will validate the Upgrade Software Access Key against the upgrade target release. The Upgrade Software Access Key is used for releases 45.x and 46.0. It is no longer used for release 46.1 and later. 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 a USB drive is present, remove it.	**If server software delivery (SSD): no RMD should be inserted in drive slot.**
2 ☐	For release 45.x through 46.0, issue the command to validate the Upgrade Software Access Key.[26] Skip this command for releases 46.1 and later.	**chg-upgrade-config:sak=*xxxxxxxxxxxxx*:src=fixed** (Where XXXXXXXXXXXXX is the Software Access Key.)
3 ☐	Response to command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y chg-upgrade-config:key=XXXXXXXXXXXXX:src=zzzzz Command entered at terminal #6. ;
☐	Verify the correct Upgrade target release is in the output.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Upgrade target: EAGLE XX.x.x.x.x-YY.y.y ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Command Completed. ;

[26] If SAK unavailable, contact My Oracle Support.

APPENDIX D. SUPPLEMENTAL INFORMATION FOR PROCEDURE 8, STEP 2

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 xxxxxxx.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.

Note: After upgrade completion, the DB level must not be changed on the destination release. If the DB level is changed, then the MTP cards will not be able to crossload the DDB from other network cards because of the difference in the DB level and the cards get stuck in the DDL_HUNT state. This causes the rollback failures.

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  tklclset   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.

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

			C) Issue CANC-SLK to deactivate the affected link

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

SWOPS Sign Off.

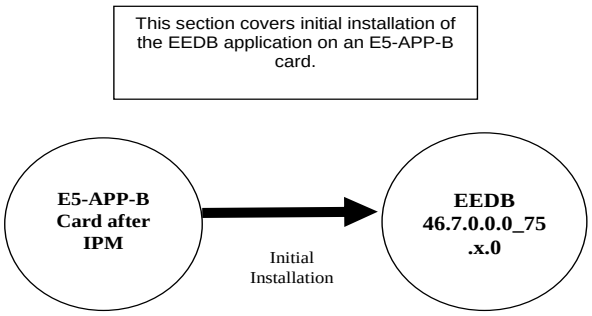
Discrepancy List

Date	Test Case	Description of Failures and/or Issues. Any CSRs / RMAs issued during Acceptance. Discrepancy	Resolution and Upgrade Center Engineer Responsible	Resolution Date:

APPENDIX E. EEDB INSTALLATION

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

Figure 2: Initial EEDB Application Installation Path



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

Description	Information
Node A IP (IPv4)	
Node A NetMask (IPv4)	
Node A Default Router IP (IPv4)	
Node B IP (IPv4)	
Node B NetMask (IPv4)	
Node B Default Router IP (IPv4)	
NTP1 IP (IPv4)	
NTP2 IP (IPv4)	
NTP3 IP (IPv4)	
VIP	
Time Zone	

- Passwords for users on the local system:

Table 23. EEDB User Password Table

EEDB USERS		
Login	**Node A password**	**Node B password**
root		
eedbconfig		
admusr		

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 completed in the order they are listed.

Table 24. Installation Phases for EEDB

Phase	Elapsed Time (Minutes)		Activity	Procedure
	This Step	Cum.		
Connectivity setup	15	15	Set up connectivity to the MPS Servers.	**Upgrade Preparation**
Pre-upgrade check	5	20	Verify requirements for install are met.	**Procedure 46**
Configure the Network	5	25	Configure the Network using platcfg on Node A	**Procedure 57**
Configure the Network	5	30	Configure the Network using platcfg on Node B	**Procedure 57**
Create the bulkconfig file	5	35	Create the configuration file	**Procedure 47**
Create the bulkconfig file	5	40	Create the configuration file	**Procedure 48**
Pre-install health check	5	45	Run the syscheck utility to verify that all servers are operationally sound on Node A.	**Procedure 56**
Pre-install health check	5	50	Run the syscheck utility to verify that all servers are operationally sound on Node B.	**Procedure 56**
Configure Server Node A	5	55	Set hostname, designation and time.	**Procedure 49**
Configure Server Node B	5	60	Set hostname, designation and time.	**Procedure 50**
Install Servers	30	90	Install software on Node A and B	**Procedure 51, Procedure 52**

E.1.3 Upgrade Preparation

Procedure 45: Setting up the upgrade environment for EEDB

S T E P #	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 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.**	
1 ☐	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. **Cable part numbers - 830-1220-xx**
2 ☐	On the workstation, open one terminal window in preparation for establishing remote connections to the MPS servers.	Create a terminal window
3 ☐	Create a terminal window for MPS A.	Create a terminal window and give it a title of **"MPS A"**
4 ☐	**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.
5 ☐	Log into MPS A.	*<hostname> console login: admusr* *password: <password>*
6 ☐	MPS A: Start screen Session.	Complete the following command to start screen and establish a console session with MPS A. *$ screen -L*
7 ☐	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. Cable part numbers - 830-1220-xx
8 ☐	Create a terminal window for MPS B.	Create a terminal window and give it a title of "MPS B"
9 ☐	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.
10 ☐	Log into MPS B.	*<hostname> console login: admusr* *password: <password>*

Procedure 45: Setting up the upgrade environment for EEDB

11 ☐	MPS B: Start screen Session.	Complete the following command to start screen and establish a console session with MPS B. `$ screen -L`
12 ☐	MPS A and B: Procedure Complete.	This procedure is complete.

Note: For the complete list of cards supported by EAGLE Release 47.0, see Hardware Reference Guide.

Procedure 46: Verify the Pre-Upgrade Requirements

STEP #	This procedure verifies that all pre-upgrade requirements have been met. **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.**	
1 ☐	Verify all required materials are present.	Verify that the materials listed in Upgrade Material List (Section E.1.1D.1E.1) are present.
2 ☐	Verify the availability of passwords for MPS systems.	Refer to Table 23 for the list of users.
3 ☐	Procedure Complete.	This procedure is complete.

E.1.4 Software Installation Procedures

Procedure 47: Create Configuration file on Node A

STEP #	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 0 for TPD installation.

Procedure 47: Create Configuration file on Node A

1 ☐	Log in as "admusr" user.	If not already logged in, then login as "admusr": **[hostname] consolelogin: admusr** **password: *password***
2 ☐	Switch super user to root.	***$ sudo su -***
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 48 Create Configuration file on Node B

Procedure 48: Create Configuration file on Node B

S T E P #	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 0 for TPD installation.

Procedure 48: Create Configuration file on Node B

1 ☐	Log in as "admusr" user on Node B.	If not already logged in, then login as "admusr": *[hostname] consolelogin: admusr* *password: password*
2 ☐	Switch super user to root.	*$ sudo su -*

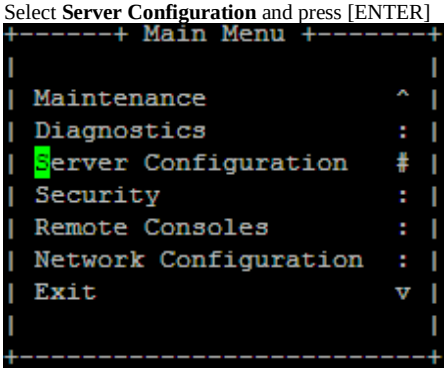
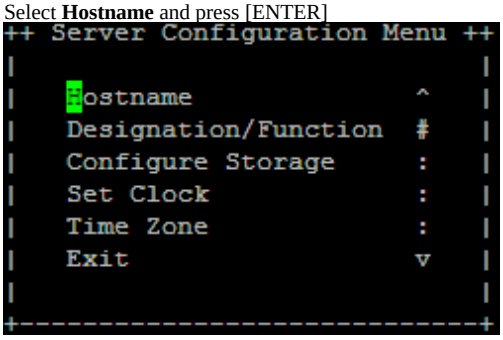
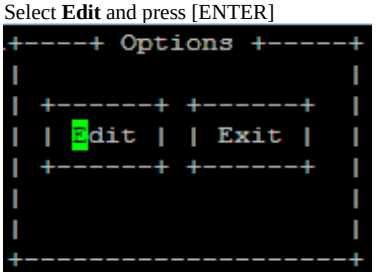
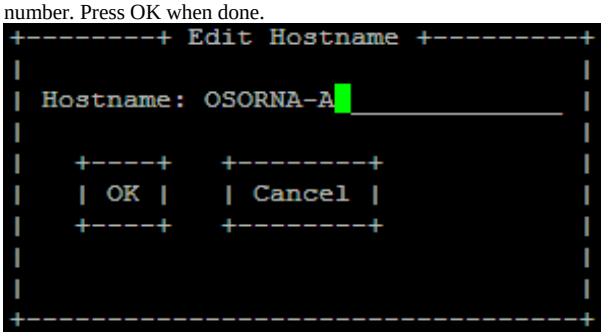
3 ☐	Create the file in root directory named as "bulkconfig"	*$ vim /root/bulkconfig*
		Content of file should be as follow:
		`host,<NodeA-hostname>,<Node A-IP>,bond0:1,<Node A- NetMask>,<Node A Default route>,1A`
		`host,<NodeB-hostname>,<Node B-IP>,bond0:1,<Node B- NetMask>,<Node B Default route>,1B`
		`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.

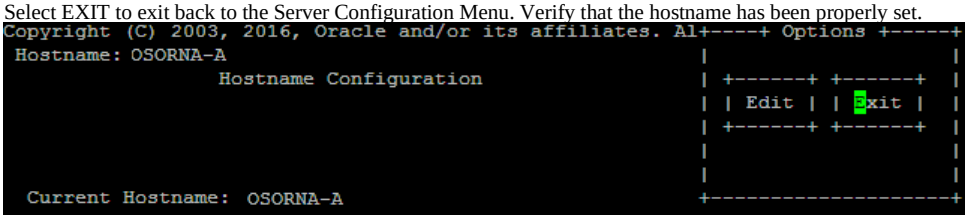
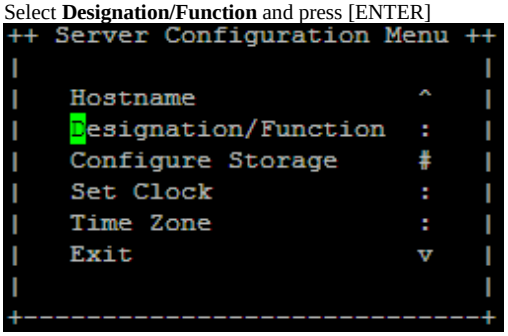
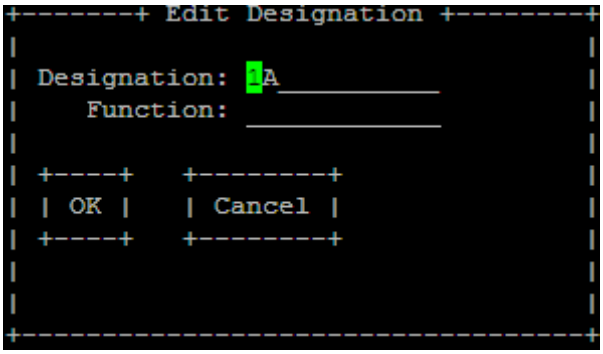
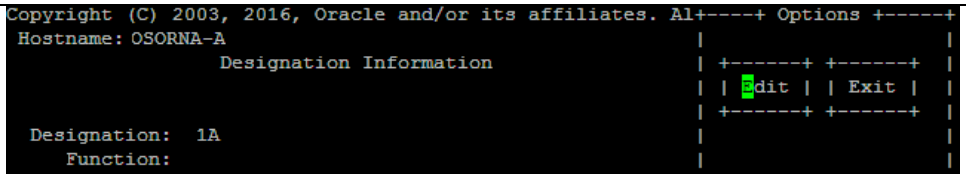
Procedure 49: Pre-Install Configuration on Node A

S T E P #	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*

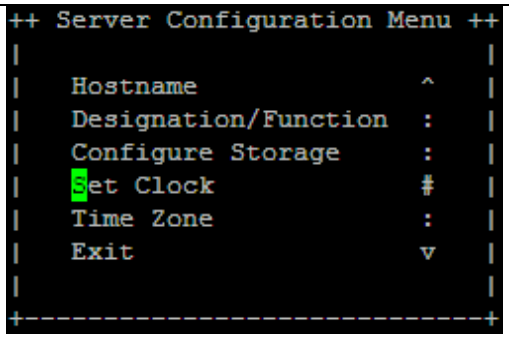
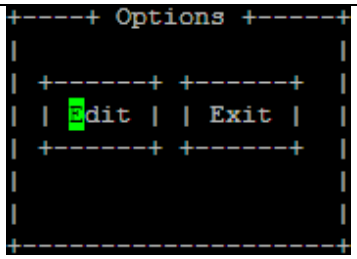
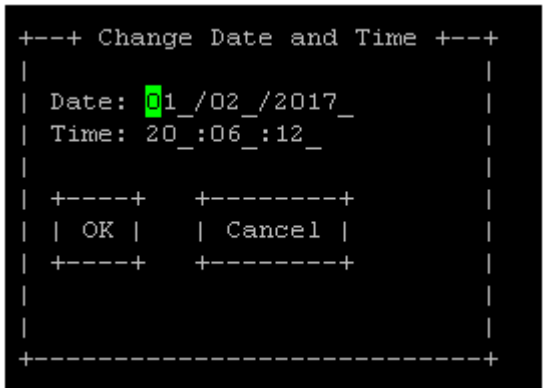
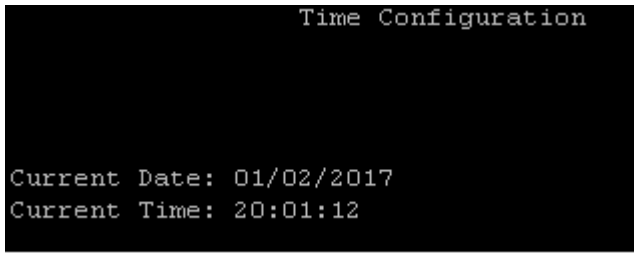
Procedure 49: Pre-Install Configuration on Node A

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

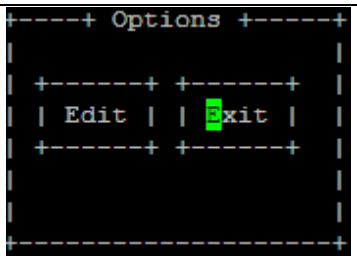
Procedure 49: Pre-Install Configuration on Node A

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. 
9. ☐	Navigate to the **Designation/Function** menu option.	Select **Designation/Function** and press [ENTER] 
10. ☐	Enter the designation.	Enter the appriopriate designation in the Designation field (Note: the designation must be capitalized). Select OK and press [ENTER]. 
11. ☐	Enter the Designation press “Exit”.	

Procedure 49: Pre-Install Configuration on Node A

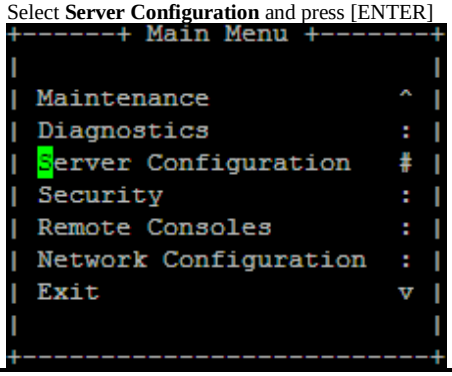
12. ☐	Select “Set Clock” Menu.	
13. ☐	1) Select “Edit” from the options dialogue box. 2) Using an NTP source, set the Date/Time to be correct for the Eastern Time zone (GMT -5) and press “OK”. NOTE: All systems default to Eastern time post IPM. It is important to set the time for the Eastern Time zone at this time.	 
14. ☐	Verify that the Date and Time is correct then select and press “Exit”.	

Procedure 49: Pre-Install Configuration on Node A

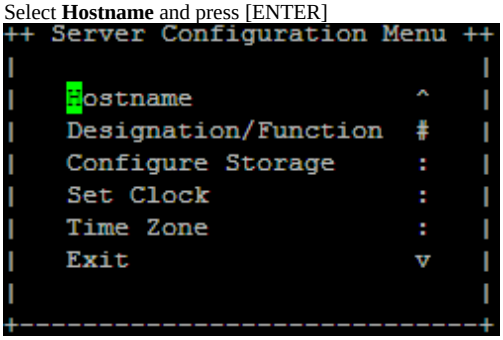
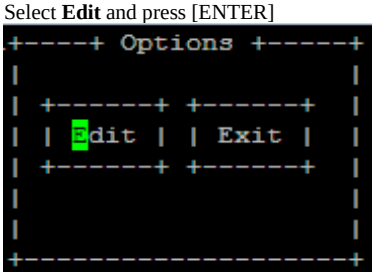
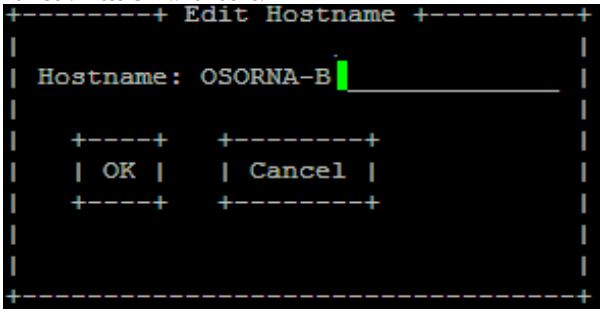
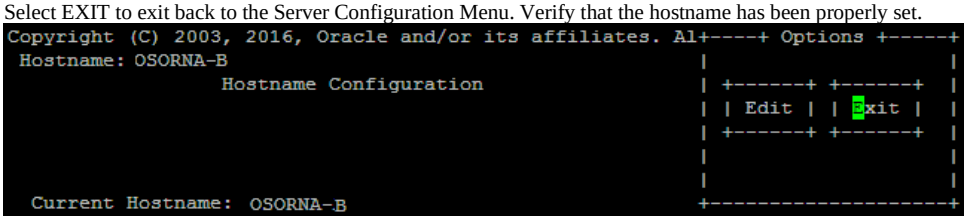
		
15. ☐	Exit from platcfg menu.	Select **EXIT** until the platcfg menu is closed and the command line is displayed.
16. ☐	Reboot the Server.	*$ sudo reboot*
17. ☐	Procedure complete.	Procedure is complete.

Procedure 50 Pre-Install Configuration on Node B

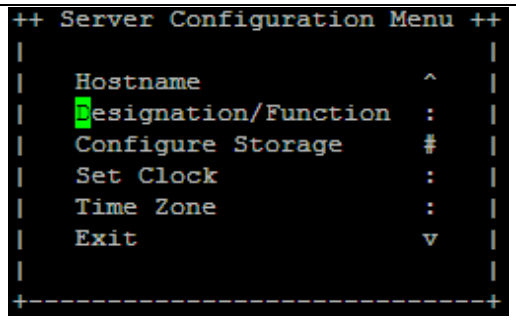
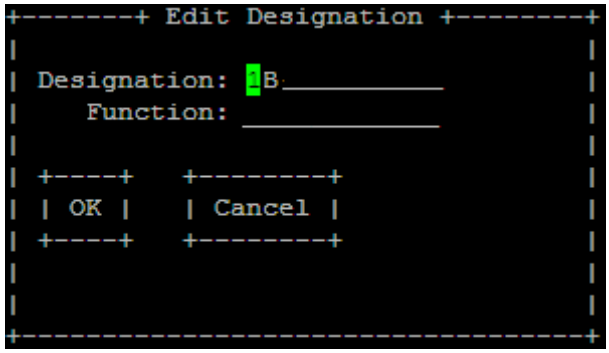
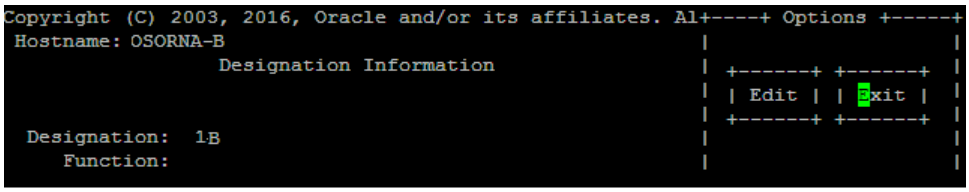
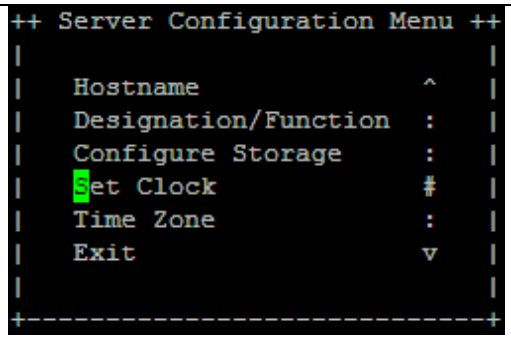
Procedure 50: Pre-Install Configuration on Node B

S T E P #	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 SUPPORTAND 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] 

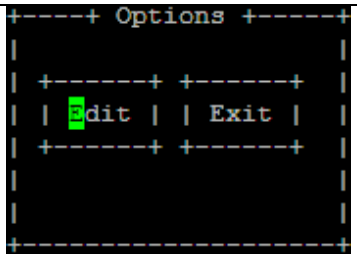
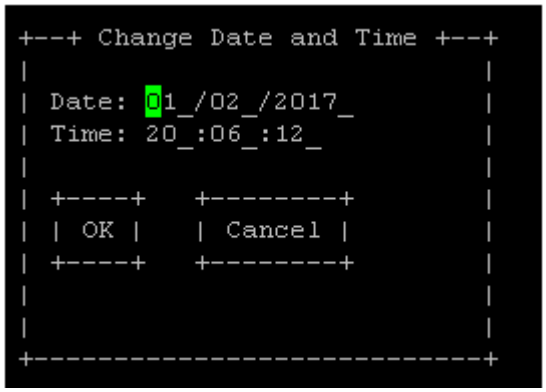
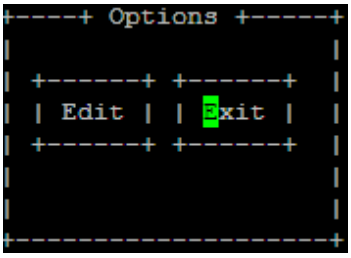
Procedure 50: Pre-Install Configuration on Node B

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]

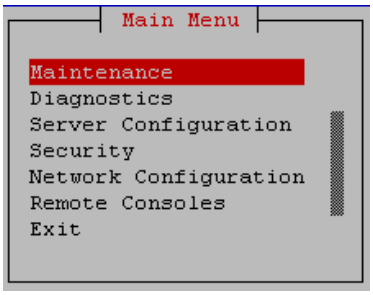
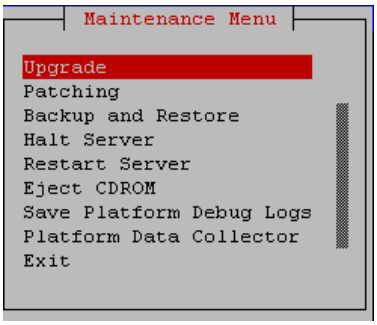
Procedure 50: Pre-Install Configuration on Node B

		
10. ☐	Enter the designation.	Enter the appriopriate 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.	

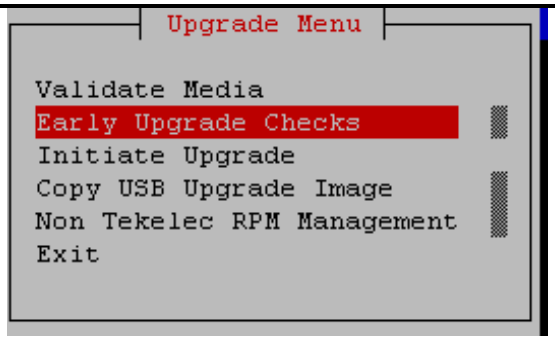
Procedure 50: Pre-Install Configuration on Node B

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 51: Install the Application on Node A

S T E P #	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 SUPPORTAND ASK FOR ASSISTANCE.	
1. ☐	**MPS A:** Copy the EEDB ISO on 1A.	Refer 00 to download the EEDB ISO and copy EEDB 46.8 ISO to /var/TKLC/upgrade directory.
2. ☐	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**
3. ☐	**MPS A**: Login prompt is displayed.	*<hostname> console login:* Note: Hit enter if no login prompt is displayed.
4. ☐	**MPS A:** log in as "admusr" user.	*[hostname] consolelogin: admusr* *password: password*
5. ☐	**MPS A:** Validate ISO file.	Validate ISO file using **00.**
6. ☐	**MPS A:** Start platcfg utility.	*$ sudo su - platcfg*
7. ☐	**MPS A:** Navigate to the Upgrade menu.	The platcfg **Main Menu** appears. On the **Main Menu**, select **Maintenance** and press **[ENTER]**.  Select the **Upgrade** menu and press **[ENTER]**. 
8.	**MPS A**: Select Early Upgrade Checks	Select the "Early Upgrade Checks" menu to verify that the system is ready for upgrade.

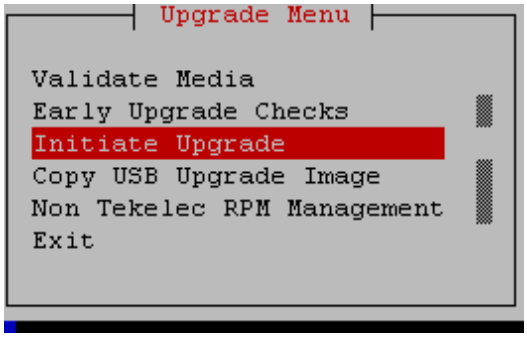
Procedure 51: Install the Application on Node A



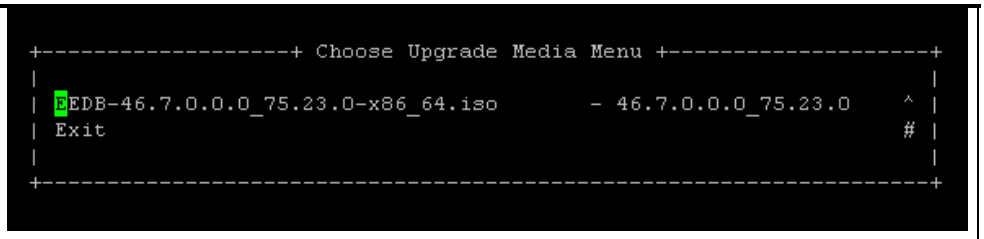
If the Early Upgrade Checks fail due to the ongoing syncing of raid mirrors, then wait until the resync is completed and run the "Early Upgrade Checks" again.

```
Early Checks failed for the next upgrade
Look at earlyChecks.log for more info
tarting Early Upgrade Checks at 1011413059
Running earlyUpgradeChecks() for Upgrade::EarlyPolicy::TPDEarlyChecks upgrade policy...
Verified server is not pending accept of previous upgrade
ERROR: Raid mirrors are syncing!
ERROR: md2 is syncing!
ERROR: earlyUpgradeChecks() code failed for Upgrade::EarlyPolicy::TPDEarlyChecks
ERROR: Failed running earlyUpgradeChecks() code
Hardware architectures match
Install products match.
No Application installed yet.. Skip alarm check!
ERROR: Early Upgrade Checks Failed!
User has requested just to run early checks.
No upgrade will be performed...
Early Upgrade Checks finished at 1011413059

[admusr@epappri ~]$ cat /proc/mdstat
Personalities : [raid1]
md1 : active raid1 sdb2[1] sda2[0]
      262080 blocks super 1.0 [2/2] [UU]

md2 : active raid1 sda1[0] sdb1[1]
      468447232 blocks super 1.1 [2/2] [UU]
      [=====>..............]  resync = 29.7% (139377920/468447232) finish=73.0min speed=75060K/sec
      bitmap: 4/4 pages [16KB], 65536KB chunk

unused devices: <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]**. 
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]**.

Procedure 51: 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 I, 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 I, if the output contains any warnings beside the following:

Procedure 51: Install the Application on Node A

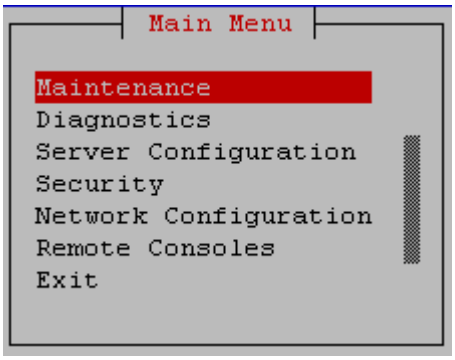
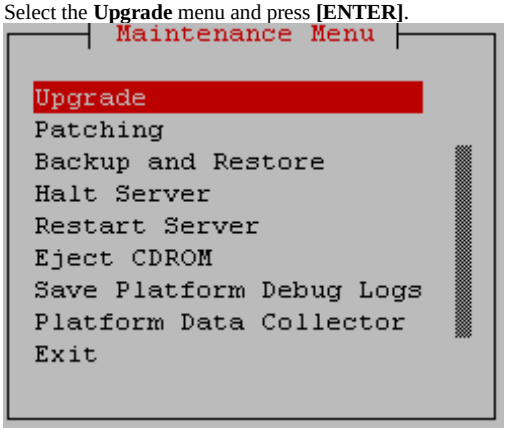
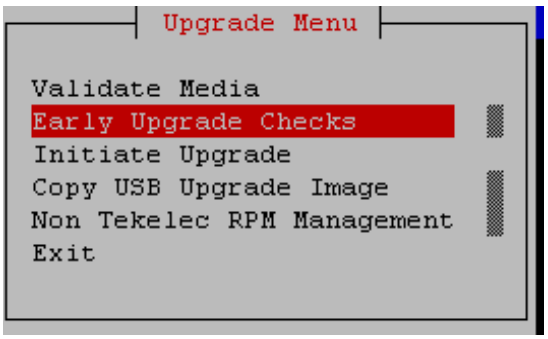
		1542695599::WARNING: /usr/TKLC/plat/etc/alarms/alarms.xml has been updated...reparsing xml... 1542695670::warning: erase unlink of /etc/ssm/hwmgmtd.conf failed: No such file or directory 1542695672::kexec-tools #warning: /etc/kdump.conf created as /etc/kdump.conf.rpmnew 1542695778::setup ##warning: /etc/shadow created as /etc/shadow.rpmnew 1542695794::ca-certificates ################warning: /etc/pki/tls/certs/ca-bundle.crt created as /etc/pki/tls/certs/ca-bundle.crt.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 1542695843::WARNING: HARDWARE ID: E5APPB 1542695915::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: CAPABILITY: service__disabled 1542695916::WARNING: HARDWARE ID: E5APPB 1542696000::cloud-init 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 I. 1399367207:: Upgrade returned success!
18. ☐	**MPS A:** Install Complete.	Install Procedure is complete.

Procedure 52 Install Application on Node B

Procedure 52: Install the Application on Node B

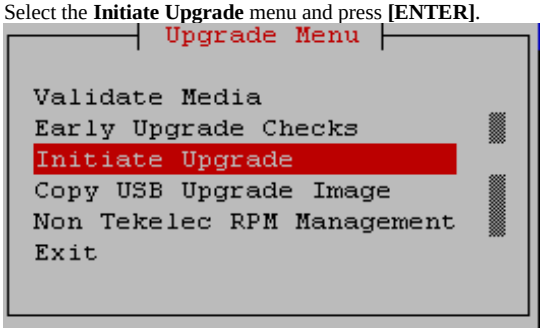
S T E P #	This procedure installs the application on the server. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORTAND ASK FOR ASSISTANCE.	
1. ☐	**MPS B:** Install 1B.	Refer 00 to download the EEDB ISO and copy EEDB 46.8 ISO to /var/TKLC/upgrade directory.
2. ☐	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.	*<hostname> console login:* Note: Hit enter if no login prompt is displayed.
4. ☐	**MPS B:** log in as "admusr" user.	*<hostname> consolelogin: admusr* *password: password*

Procedure 52: Install the Application on Node B

5. ☐	**MPS X:** Validate ISO file.	Validate ISO file using 0.
6. ☐	**MPS B:** Start platcfg utility.	*$ sudo su - platcfg*
7. ☐	**MPS B:** Navigate to the Upgrade menu.	The platcfg **Main Menu** appears. On the **Main Menu**, select **Maintenance** and press **[ENTER]**.  Select the **Upgrade** menu and press **[ENTER]**. 
8. ☐	**MPS A**: Select Early Upgrade Checks	Select the "Early Upgrade Checks" menu to verify that the system is ready for upgrade. 

Procedure 52: 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.
		
		`Early Checks failed for the next upgrade`
		`Look at earlyChecks.log for more info`
		`tarting Early Upgrade Checks at 1011413059`
		`Running earlyUpgradeChecks() for Upgrade::EarlyPolicy::TPDEarlyChecks upgrade policy...`
		`Verified server is not pending accept of previous upgrade`
		`ERROR: Raid mirrors are syncing!`
		`ERROR: md2 is syncing!`
		`ERROR: earlyUpgradeChecks() code failed for Upgrade::EarlyPolicy::TPDEarlyChecks`
		`ERROR: Failed running earlyUpgradeChecks() code`
		`Hardware architectures match`
		`Install products match.`
		`No Application installed yet.. Skip alarm check!`
		`ERROR: Early Upgrade Checks Failed!`
		`User has requested just to run early checks.`
		`No upgrade will be performed...`
		`Early Upgrade Checks finished at 1011413059`
		
		`[admusr@epappri ~]$ cat /proc/mdstat`
		`Personalities : [raid1]`
		`md1 : active raid1 sdb2[1] sda2[0]`
		`262080 blocks super 1.0 [2/2] [UU]`
		
		`md2 : active raid1 sda1[0] sdb1[1]`
		`468447232 blocks super 1.1 [2/2] [UU]`
		`[=====>.....] resync = 29.7% (139377920/468447232) finish=73.0min speed=75060K/sec`
		`bitmap: 4/4 pages [16KB], 65536KB chunk`
		
		`unused devices: <none>`
		
		Contact My Oracle Support following the instructions on the front page or the instructions on the Appendix I, 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]**. 
10. ☐	**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]**.
11. ☐	**MPS B:** Upgrade proceeds.	The screen displays the following, indicating that the upgrade software is first validating the media, and then proceeding with the upgrade.

Procedure 52: Install the Application on Node B

		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 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 I, 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 I, 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: erase unlink of /etc/ssm/hwmgmtd.conf failed: No such file or directory 1542695672::kexec-tools #warning: /etc/kdump.conf created as /etc/kdump.conf.rpmnew 1542695778::setup ##warning: /etc/shadow created as /etc/shadow.rpmnew 1542695794::ca-certificates ################warning: /etc/pki/tls/certs/ca-bundle.crt created as /etc/pki/tls/certs/ca-bundle.crt.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.

Procedure 52: Install the Application on Node B

		1542695843::WARNING: CAPABILITY: service_hp-asrd_disabled 1542695843::WARNING: HARDWARE ID: E5APPB 1542695915::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: CAPABILITY: service__disabled 1542695916::WARNING: 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 I. 1399367207:: Upgrade returned success!
18. ☐	**MPS B:** Install Complete.	Install Procedure is complete.

E.1.5 Generic Procedure

Procedure 53 ISO Image download from Oracle Software Delivery Cloud

Procedure 53: ISO Image download from OSDC

STEP #	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] consolelogin: admusr* *password: <admusr_password>*
2. ☐	**MPS X:** Verify ISO image doesn't already exist.	Complete 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 53: ISO Image download from OSDC

		Copy the ISO image from source path to destination path using scp/ftp command. Complete 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, Run 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.	Run the following command to perform directory listing: *$ ls -alrt /var/TKLC/upgrade* The output should look like: [admusr@hostname ~]$ ls -alrt /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.
6. ☐	**MPS X:** Validate ISO file.	Validate ISO file using 00.
7. ☐	**Procedure complete.**	This procedure is complete.

Procedure 54 Validate Upgrade Media

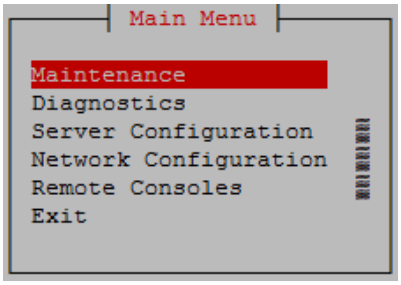
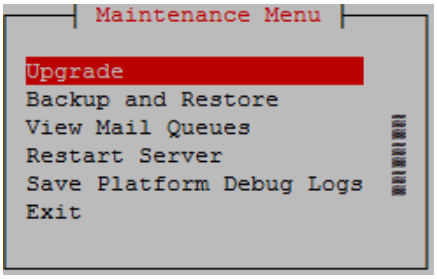
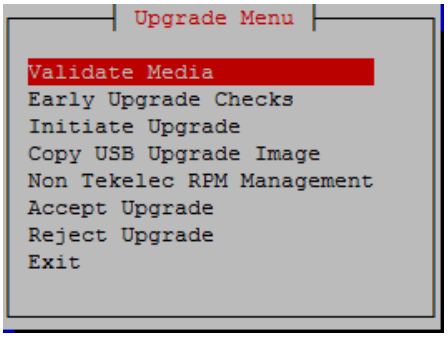
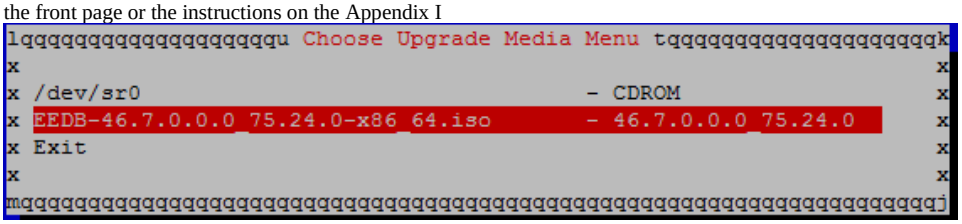
This procedure is used to complete a validation of the Upgrade Media (typically an ISO image) separately from completing an upgrade. The upgrade process automatically validates the upgrade media. However, sometime the user may wish to perform just a validation before proceeding with upgrade, thus the reason for this separate process.

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

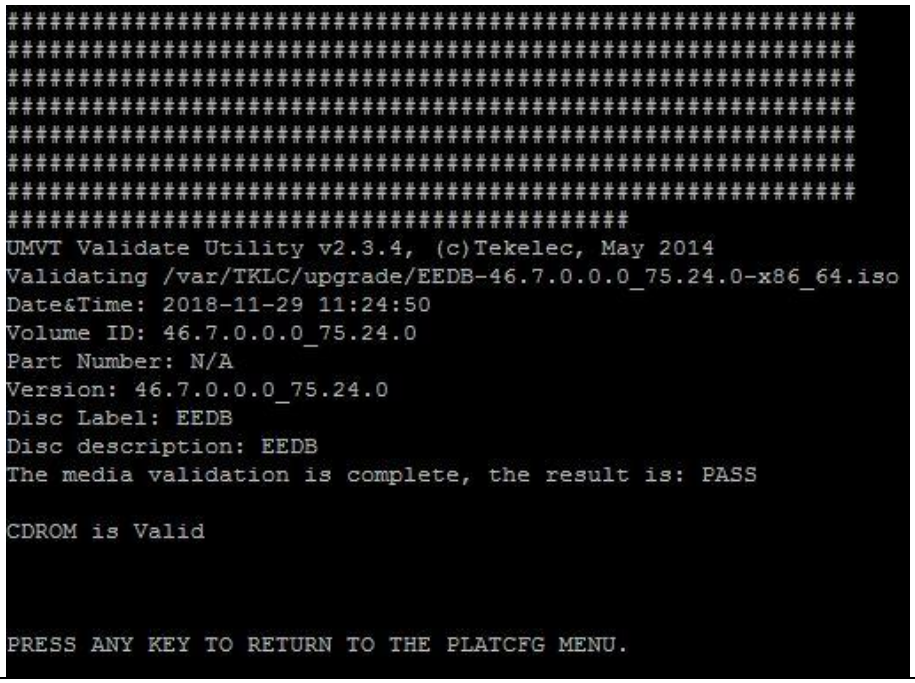
Procedure 54: Validate the Upgrade Media

S T E P #	This procedure provides instructions to perform a validation of the upgrade media on the MPS X server. This procedure assumes that the E5-APP-B card IPM procedure has been completed and the user has an EEDB Upgrade ISO image available. 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>*

Procedure 54: Validate the Upgrade Media

2. ☐	**MPS X:** Complete the platcfg menu.	*$ 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 0 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 I 

Procedure 54: 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. 
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.

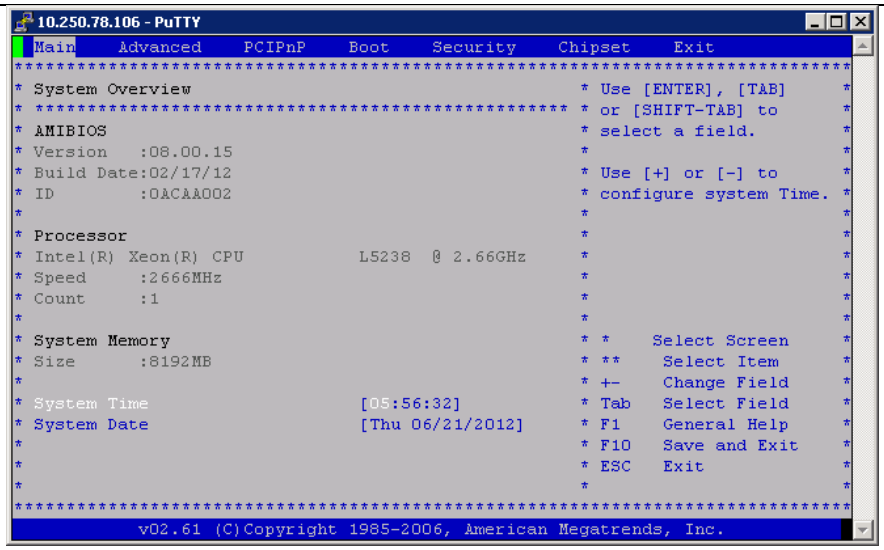
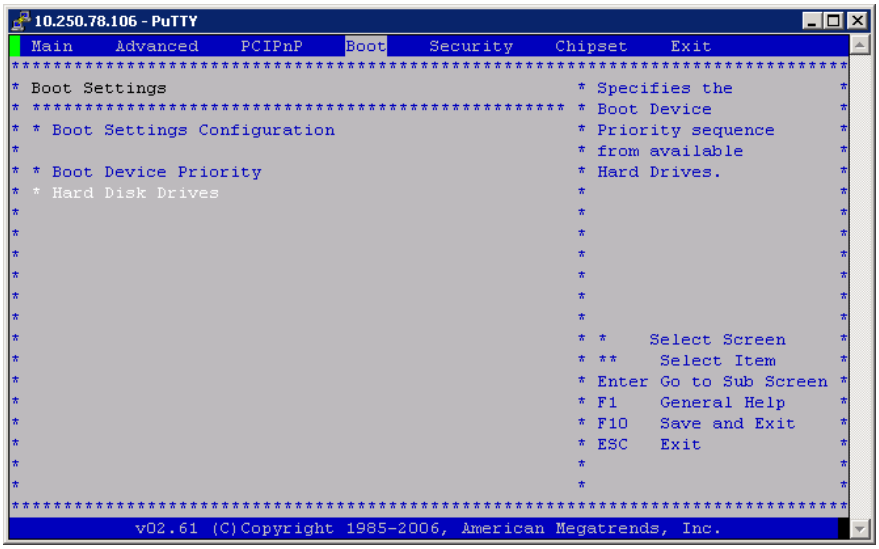
Procedure 55 IPM MPS Server with TPD 7.6.X

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

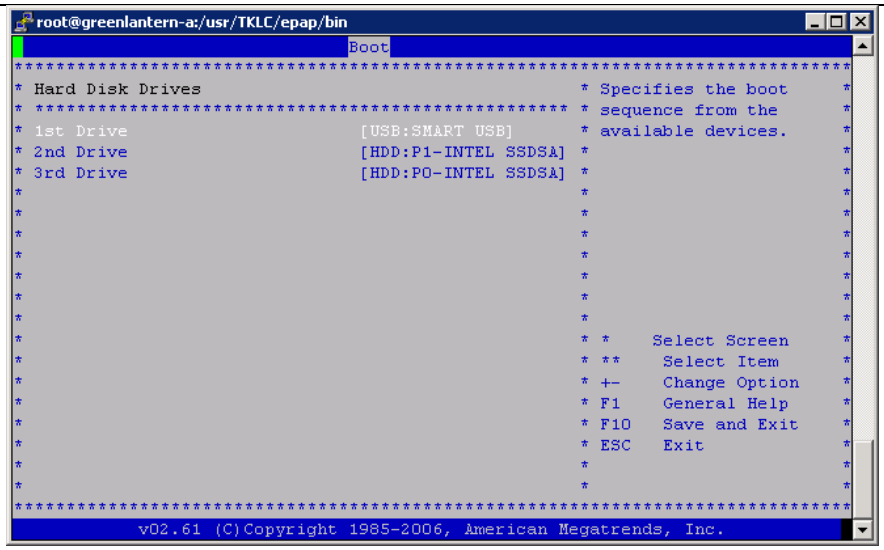
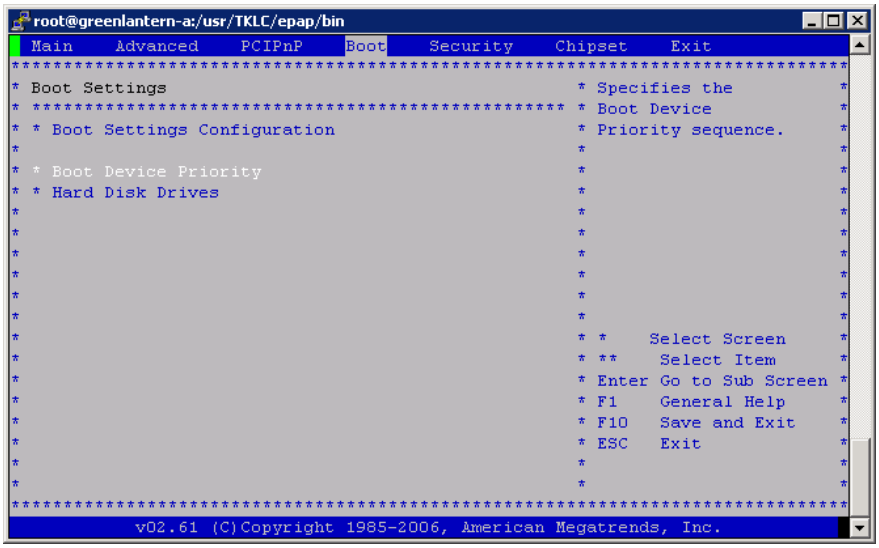
Procedure 55: IPM with TPD 7.6.x

STEP #	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 <u>UPGRADE ASSISTANCE</u>.**	
1. ☐	**MPS X:** Insert TPD 7.6.x USB media into the USB port (E5-APP-B). Note: Refer 0 to copy the ISO in USB.	Reboot server ***# reboot***

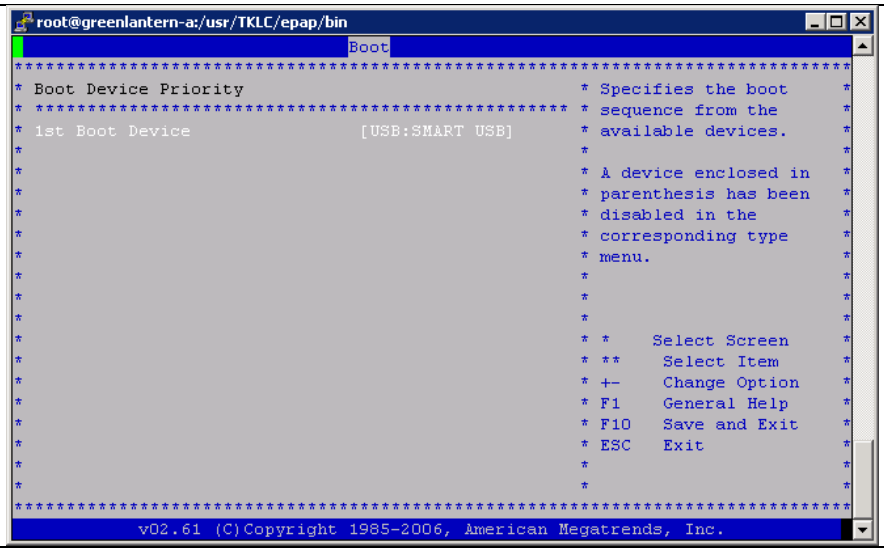
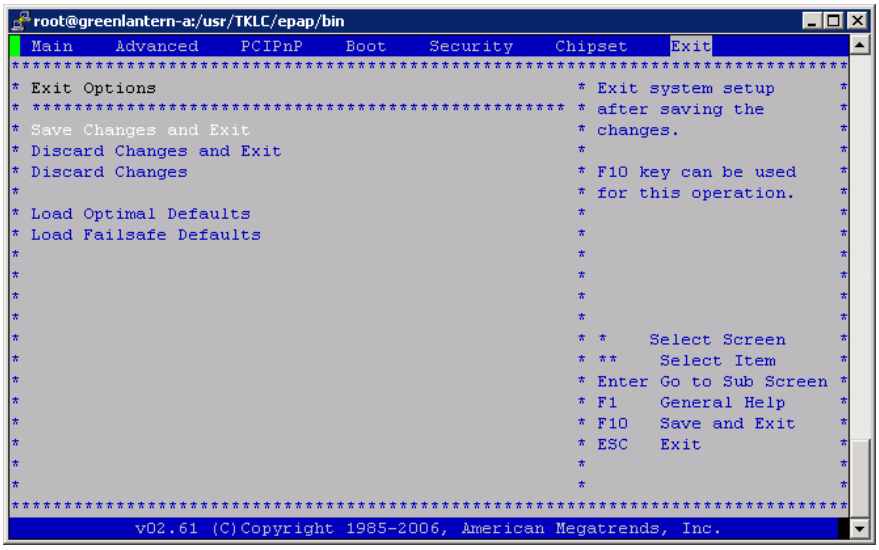
Procedure 55: IPM with TPD 7.6.x

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	**remo**

Procedure 55: IPM with TPD 7.6.x

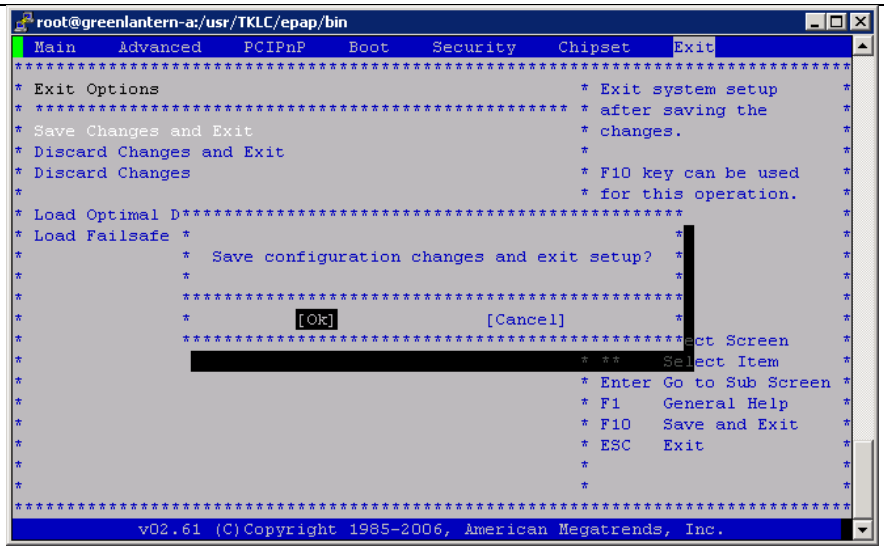
		
5. ☐	**MPS X:** Press 'Esc' key and select Boot Device Priority	
6. ☐	**MPS X:** Verify that the 1st Boot Device is set to USB.	

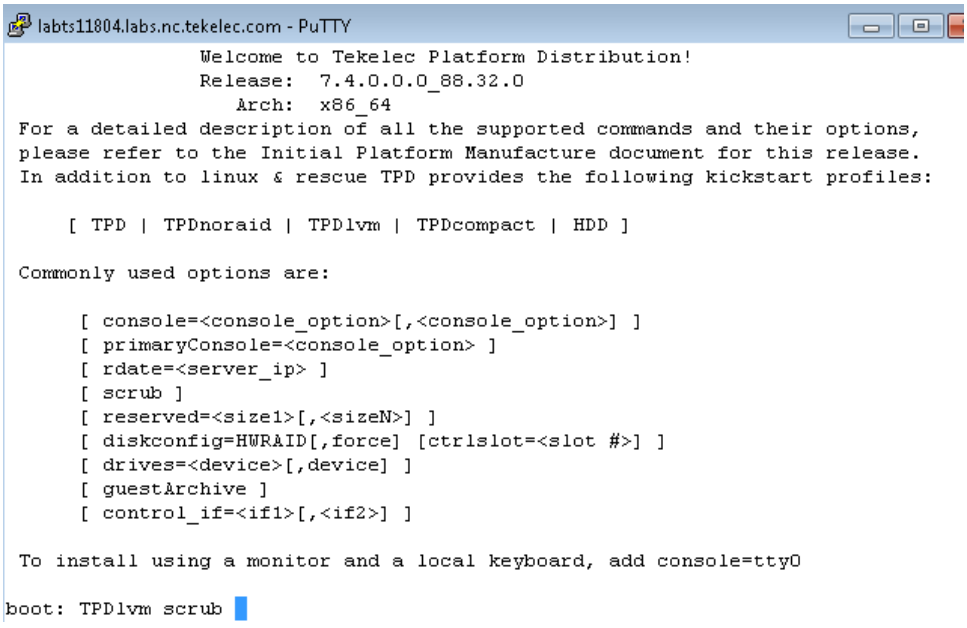
Procedure 55: IPM with TPD 7.6.x

<table>
<tr><td></td><td></td><td> 
</td></tr>
<tr><td>7.
☐</td><td>MPS X:
Press ‘Esc’ key and select Exit → Save Changes and Exit option</td><td> 
</td></tr>
<tr><td>8.
☐</td><td>MPS X:
Select [OK] to save the configuration changes.

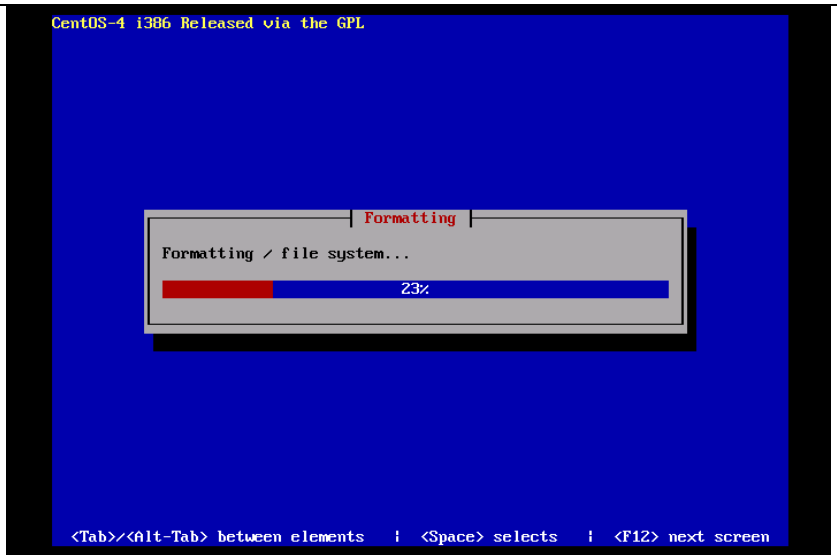
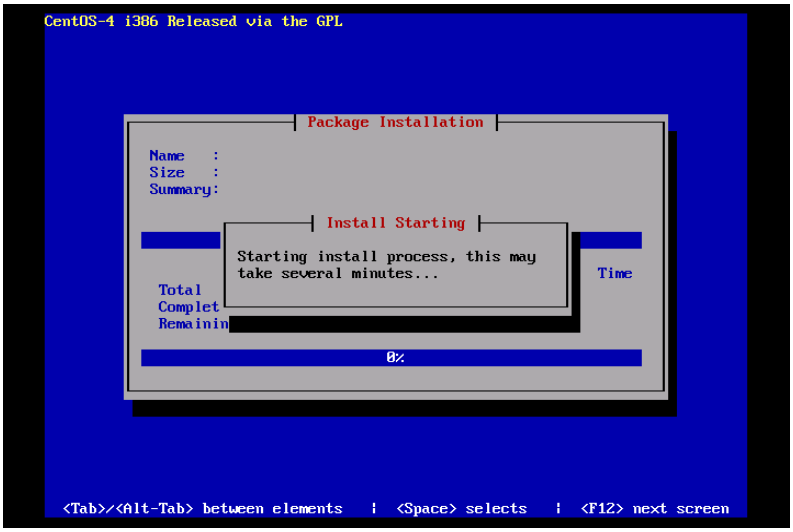
The server will reboot and TPD boot prompt will appear.</td><td></td></tr>
</table>

Procedure 55: IPM with TPD 7.6.x

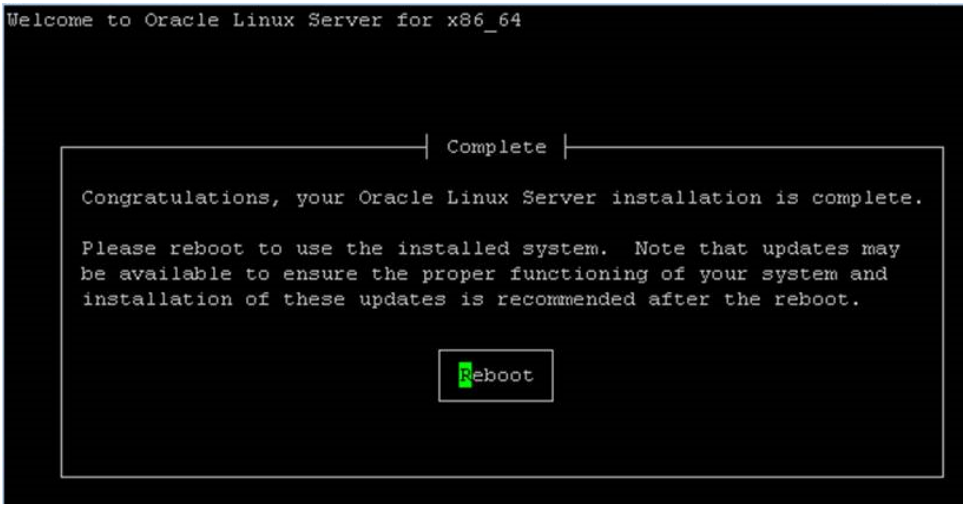
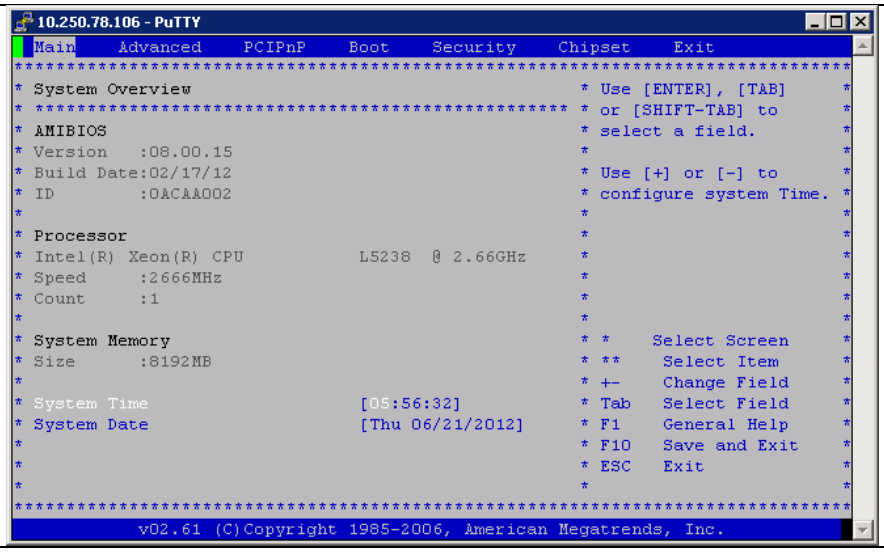


9. ☐	**MPS X:** Start the IPM process by entering the TPDlvm command at the boot prompt.	
10. ☐	**MPS X:** After a few seconds, additional messages will begin scrolling by on the screen as the Linux kernel boots, and then the drive formatting and file system creation steps will begin.	

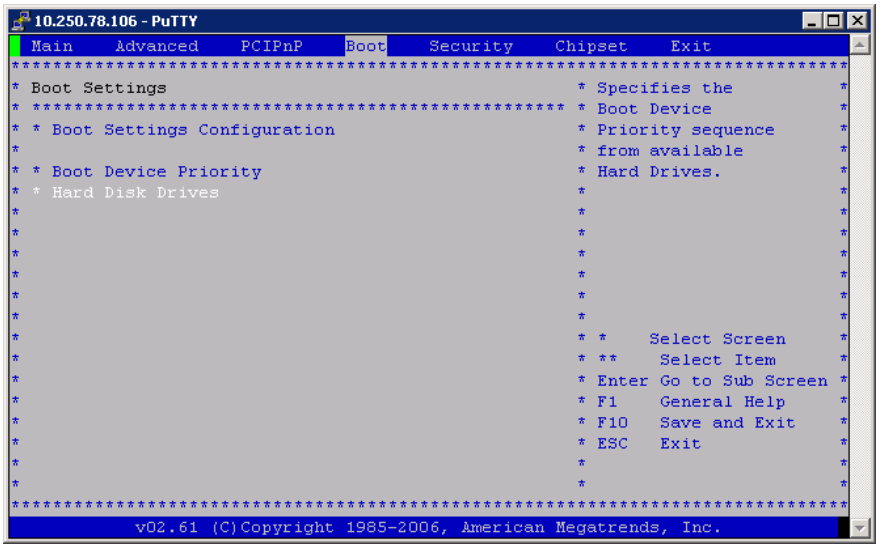
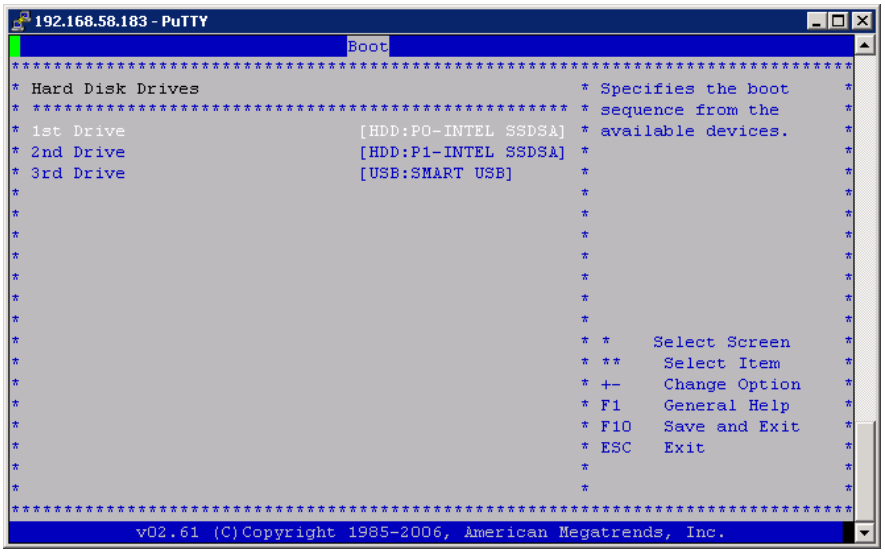
Procedure 55: IPM with TPD 7.6.x

		
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:**	

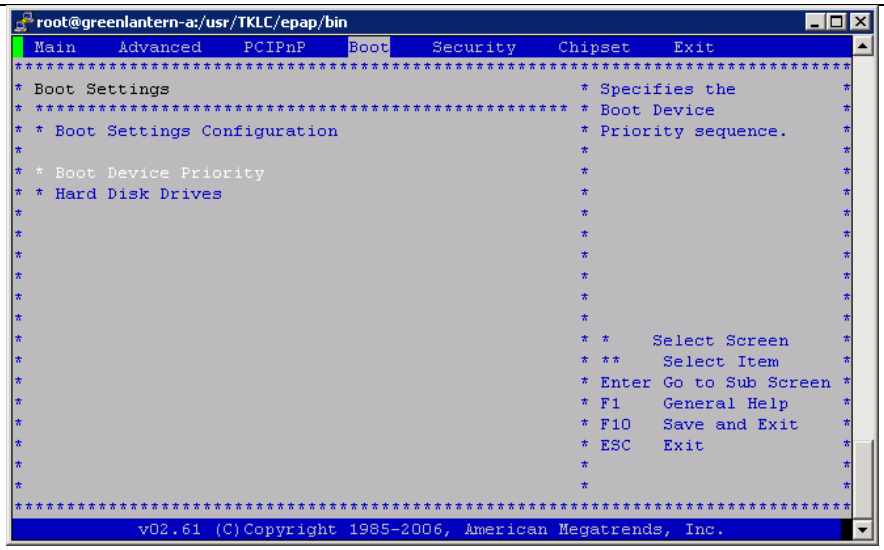
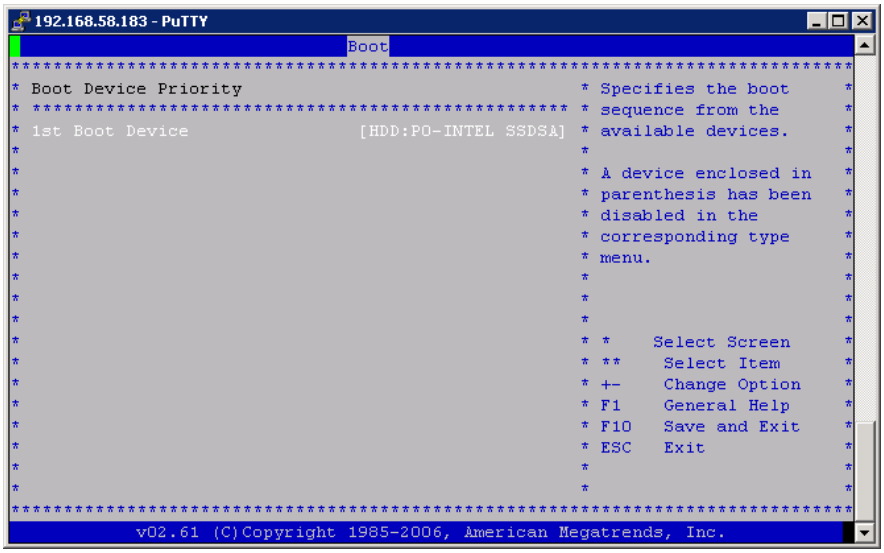
Procedure 55: IPM with TPD 7.6.x

	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.	

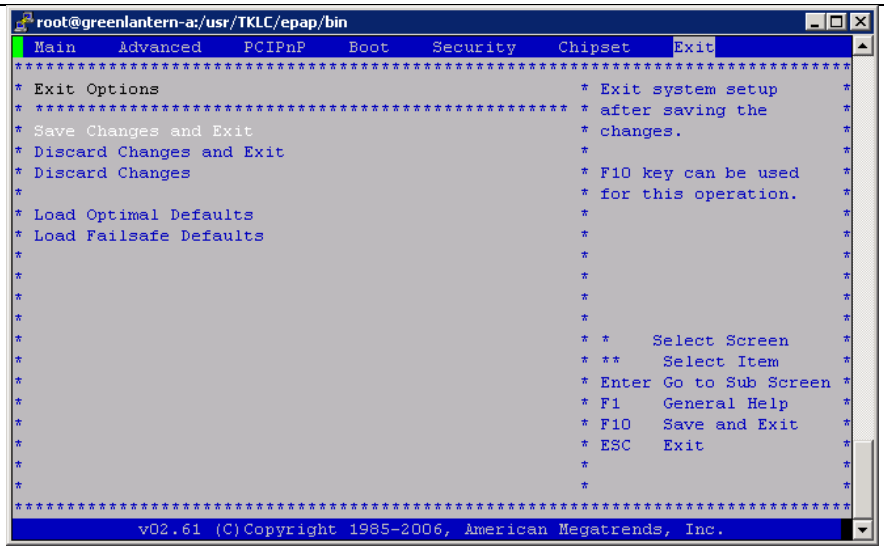
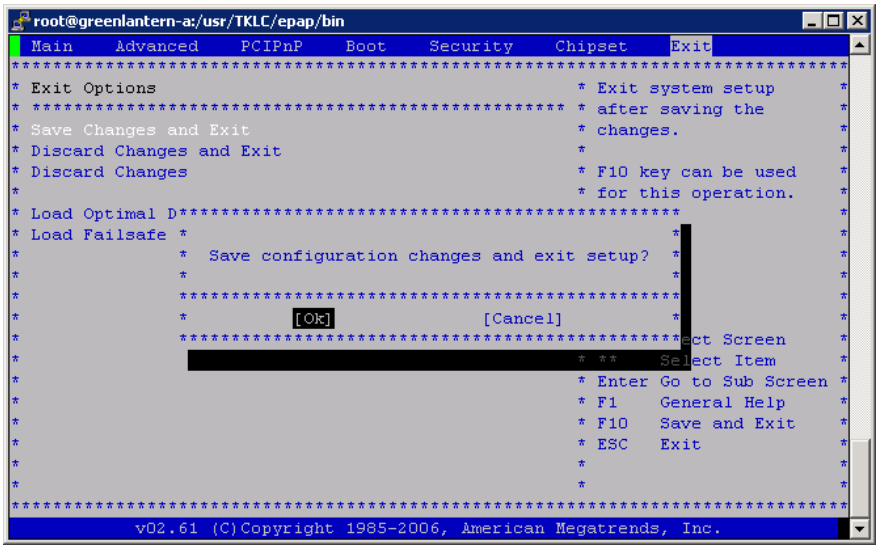
Procedure 55: IPM with TPD 7.6.x

15. ☐	**MPS X:** Select *Boot* → *Hard Disk Drives* option	
16. ☐	**MPS X:** Press 'Enter' key and select HDD:P0 as the 1st Drive	
17. ☐	**MPS X:** Press 'Esc' key and select Boot Device Priority	

Procedure 55: 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 55: IPM with TPD 7.6.x

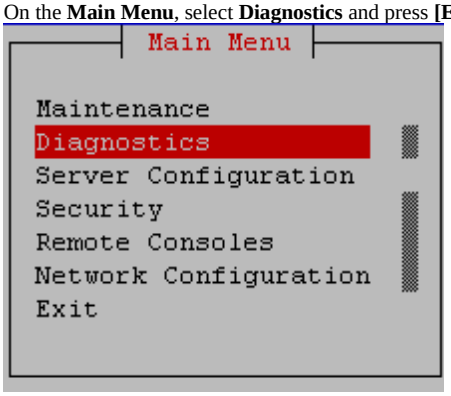
		
20. ☐	**MPS X:** Select [OK] to save the configuration changes. The server will reboot. Remove USB media from USB drive.	 When the message "Upstart Job ntdMgr: started", is displayed, press the Enter Key to get the Login prompt.
21. ☐	**MPS X:** Log in to the server as the user "admusr"	*console login: admusr* *password: <admusr_password>*
22. ☐	**MPS X:** Verify that the platform revision is same as the TPD DVD or ISO used.	*$ getPlatRev* 7.6.x.0.0-y.z.0

Procedure 55: IPM with TPD 7.6.x

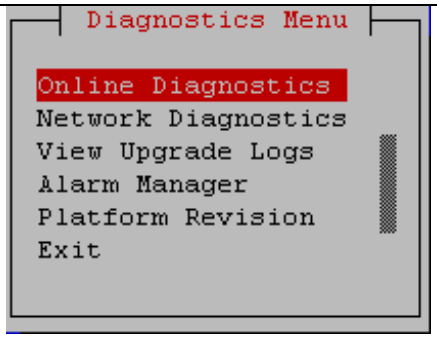
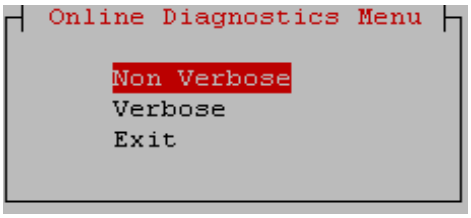
23. ☐	**MPS X:** Verify the system date.	*$ date -u* Wed Mar 21 11:04:54 UTC 2018 Verify that the output time matches the time set in step 14. If mismatch is found, then Refer to Appendix I for instructions on accessing My Oracle Support.
24. ☐	**Procedure complete.**	Return to the procedure that you came from.

Procedure 56 Perform System Health Check

Procedure 5639: Perform System Health Check

S T E P #	This procedure performs a system health check on any MPS 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:** 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:** Complete 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]**. 
4. ☐	Select the Online Diagnostics submenu.	Select the **Online Diagnostics** submenu and press **[ENTER]**.

Procedure 5639: Perform System Health Check

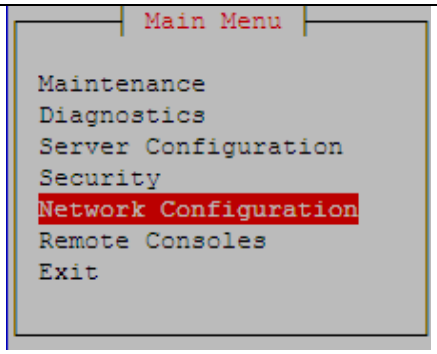
		
5. ☐	Select the Non-Verbose option.	Select the **Non-Verbose** option and press **[ENTER]**. 
6. ☐	Examine the output of the Online Diagnostics	Example output shown below. Examine the actual output of the Online Diagnostics.
7. ☐	System Check Successful. System Check Failure.	Exit from the above menu. If the System Check was successful, return to the procedure that you came here from. 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 I.
8. ☐	Server clean-up to create space.	Run the following command: *$ df -h /var/TKLC* The output may look like:

Procedure 5639: Perform System Health Check

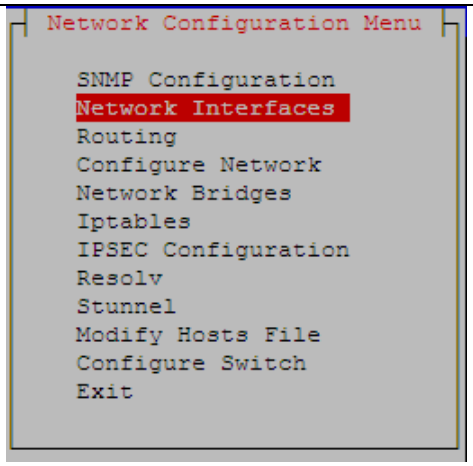
		[admusr@hostname ~]$ df -h /var/TKLC Filesystem Size Used Avail Use% Mounted on /dev/mapper/vgroot-plat_var_tklc 3.9G 2.2G 1.5G 60% /var/TKLC Verify that there is at least 600M in the Avail column. If not, clean up files until there is space available. **CAUTION: Make sure you know what files you can 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, run the following command to check space in '/lib/module' directory. *$ 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.

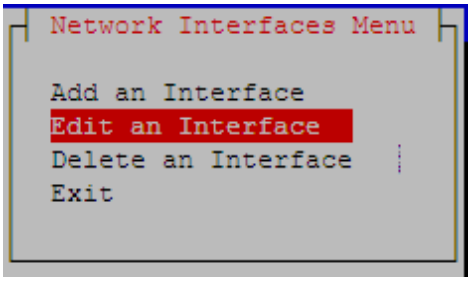
Procedure 57 Configure Network Interface using platcfg utility

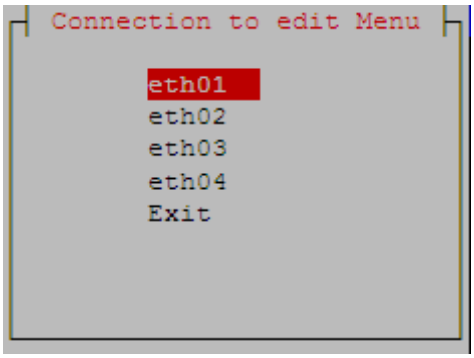
Procedure 57: Configure Network Interface using platcfg utility

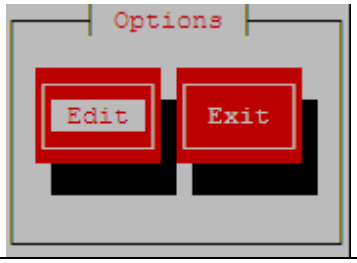
S T E P #	This procedure configures the network interfaces and makes the E5APPB servers accessible to the network. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. IF THIS PROCEDURE FAILS, CONTACT MY ORACLE SUPPORT AND **ASK FOR UPGRADE ASSISTANCE**.	
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:** Complete the platcfg menu.	*$ sudo su - platcfg*
3. ☐	**MPS X**: configure Network Interface.	

Procedure 57: Configure Network Interface using platcfg utility

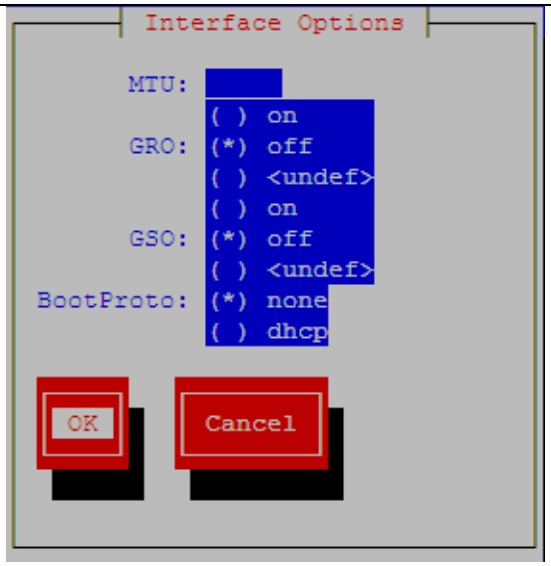
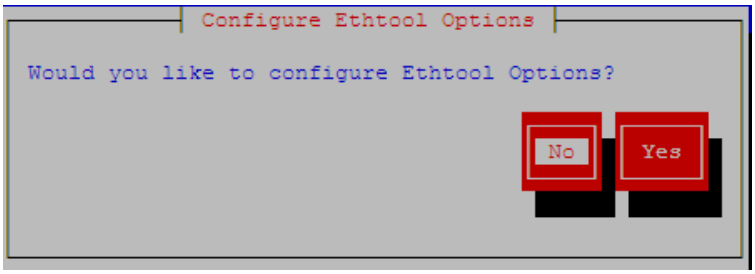
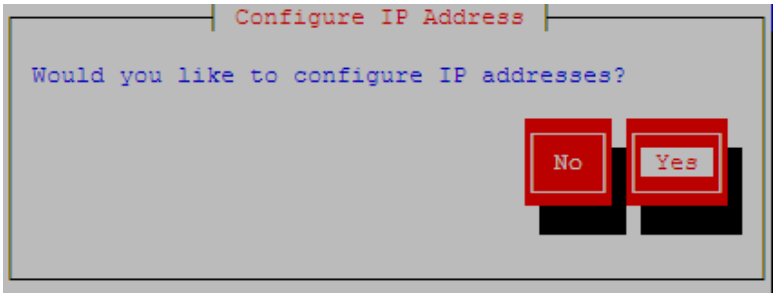
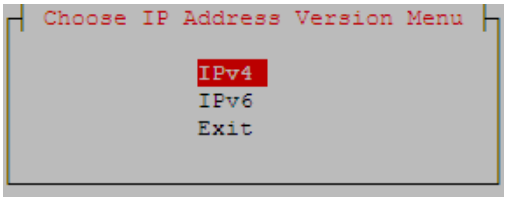




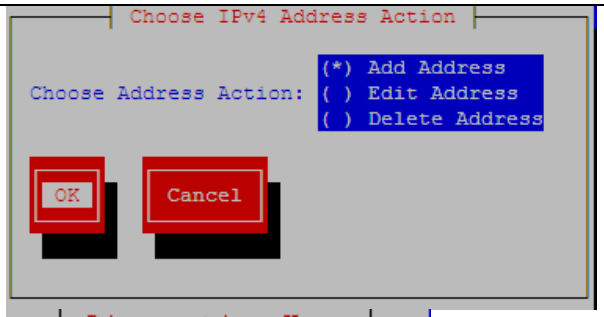


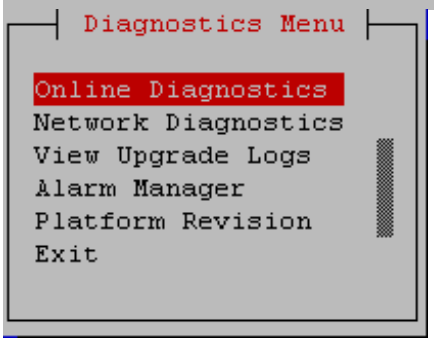


Procedure 57: Configure Network Interface using platcfg utility

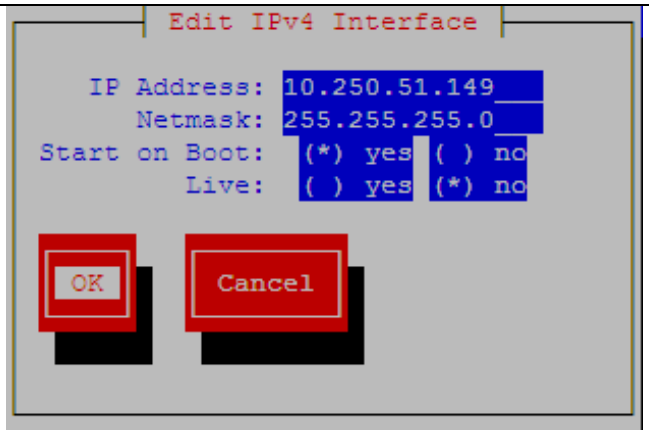
4.	Select the Interface option.	   

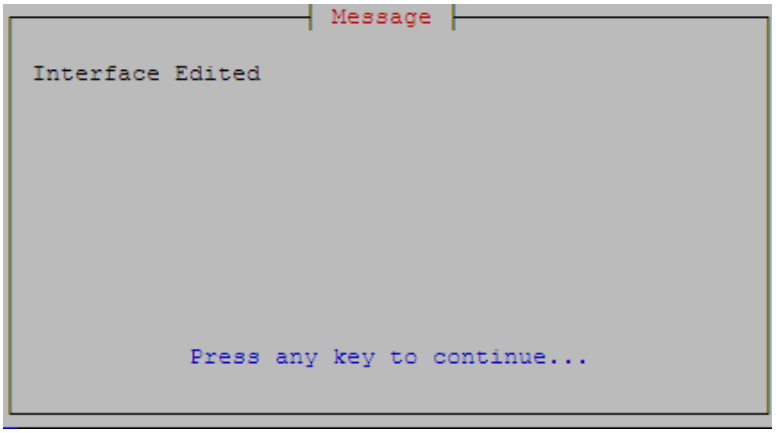
Procedure 57: Configure Network Interface using platcfg utility





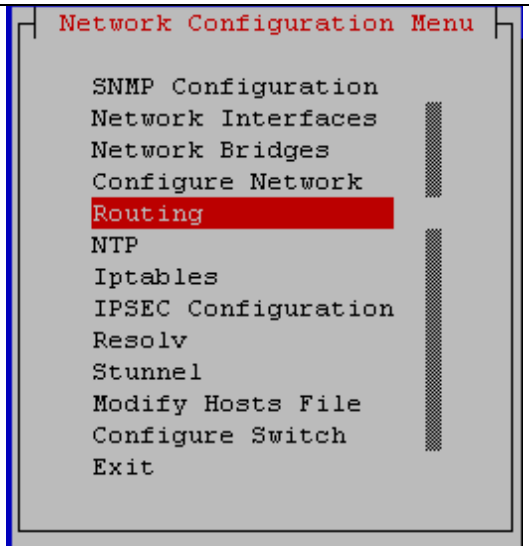
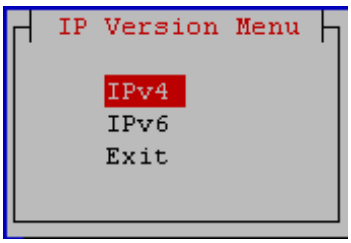
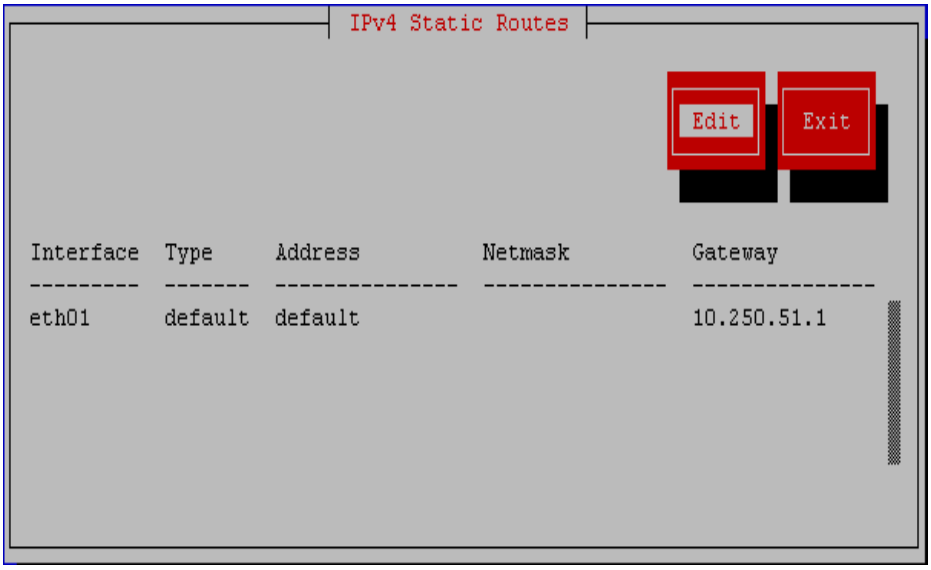
5. ☐ Input the IP Address and Netmask.



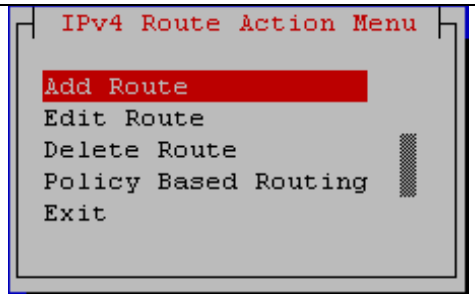


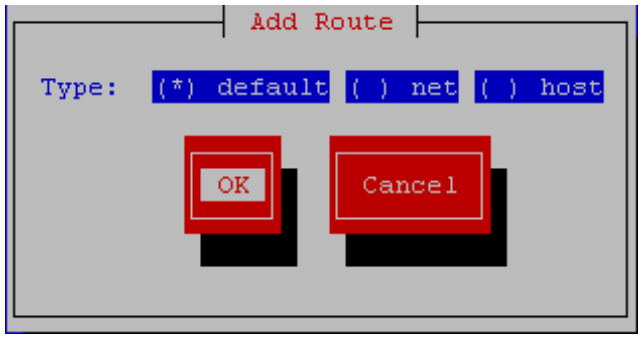
Select “Exit” until you reach the network configuration menu.

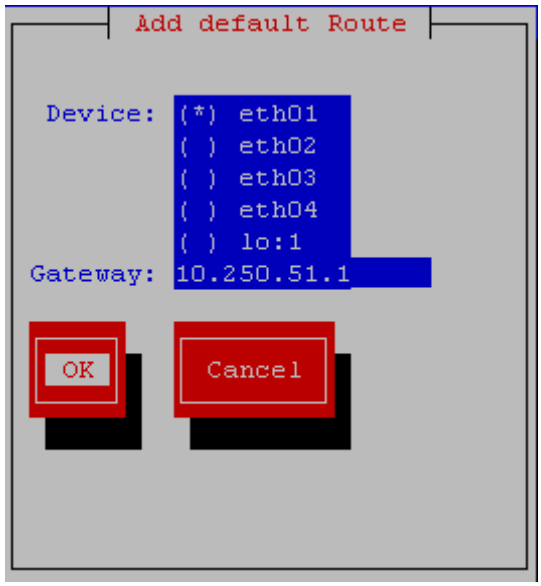
Procedure 57: Configure Network Interface using platcfg utility

6. ☐	Configure Default Route.	  

Procedure 57: Configure Network Interface using platcfg utility







Procedure 57: Configure Network Interface using platcfg utility

		 Select "Exit" until you exit from the platcfg utility.
7. ☐	**Procedure complete.**	This procedure is complete.

Procedure 58 Copy ISO image in USB

Procedure 58: ISO Image download from OSDC

STEP #	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] consolelogin: admusr* *password: <admusr_password>*

2. ☐	**MPS X:** Verify ISO image present at directory.	Run 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 -arlt`
		`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. UPGRADING SOURCE RELEASE 46.5.1.10.0 TO TARGET RELEASE 46.5.1.20.0 (46.9.1.20.0)

Procedure 59: Upgrading Source Release 46.5.1.10.0 to Target Release 46.5.1.20.0 (46.9.1.20.0)

S T E P #	This procedure upgrades the EAGLE Software Release 46.5.1.10.0 to the Release 46.5.1.20.0 (46.9.1.20.0). The only EPM-A cards that are allowed to be operational in the EAGLE prior to upgrading to the Release 46.5.1.20.0 are the E5-ENET-A cards running the IPSG application. In addition, other A cards, that is, the cards that contain the BLIXP flash GPL must be removed from the machine prior to the upgrade. Release 46.9.1.20.0 is used to perform chg-gpl only. The release should not be used for a fresh installation. 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. ☐	Disable the security feature. Note: To turn off both SSH and SFTP, refer to EAGLE's Database Administration – System Management User's Guide, Section A.4.	
2. ☐	Migrate IPSM, MCPM, and OAM to the VxWorks 6.9 GPL versions.	
3. ☐	Upgrade to EAGLE 46.5.1.20.0 by referring to EAGLE Software Upgrade Guide for 46.x.	
4. ☐	Re-enable the security feature. Note: Refer to EAGLE's Database Administration – System Management User's Guide, Section A.4.	
5. ☐ ☐ ☐	Migrate the E5-ENET-A cards to the SLIC cards. Flash SLIC (to be used in 4-Port IPSG locations) to BLSL932. Consolidate two E5-ENET-A cards into one SLIC card.	
6. ☐	At this point, all of the E5-ENET-A cards have been removed from the EAGLE node.	
7. ☐ ☐	Prepare USB with the 46.9.1.20.0 upgrade GPLs to run the chg-gpl command. Create the Removable Eagle STP USB by performing the following steps: - Format the Removable Eagle STP USB. - Download the 46.9.1.20 zip file from My Oracle Support (MOS), and copy the SYSREL.SYS and	

Procedure 59: Upgrading Source Release 46.5.1.10.0 to Target Release 46.5.1.20.0 (46.9.1.20.0)

	toamhc69.elf files to the Removable Eagle STP USB.	
8. ■	Run the given command.	`chg-gpl:gpl=oamhc69:ver-147.5.11`
9. ☐	Run the given command.	`init-card:appl=oam`
10. ■	The OAM displays the release label 46.9.1.20.0-77.5.11.	
11. ☐	At this point, the EAGLE node is running Release 46.9.1.20.0. The only supported upgrade path from 46.9.1.20.0 will be to Release 47.0.0.0.0.	

APPENDIX G. 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 complete Procedure 9 through Procedure 13. Otherwise, go to

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 60: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

S T E P #	This procedure flashes the MASPs to BLDC32 to load new VxWorks 6.9 flash images. 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 card status to verify the location of the active/standby MASP slots	**REPT-STAT-CARD:APPL=OAM**
2 ☐ ☐	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.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.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. ;
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 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.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y Upg Phase 3 GPL CARD RUNNING APPROVED TRIAL OAMHC *XXXX* XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX *ZZZZZZ* YYY-YYY-YYY **ALM** YYY-YYY-YYY YYY-YYY-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.)

Procedure 60: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

6 ☐ ☐	Response to the inhibit command is displayed Verify UAM 514 is displayed. If the "ALM" indication was displayed in step 4, continue. Otherwise, go to step 11.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 Card is inhibited. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 ** 5045.0514 ** CARD XXXX OAMHC Standby MASP is inhibited ; **Note**: Wait for the card to boot and return to the IMT bus.
7 ☐	Download the approved version flash to the standby MASP.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR** (Where ***XXXX*** is the location of the standby MASP slot used in the previous command.)
8 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If the card is running BLMCAP, continue. Otherwise, go to step 17.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 FLASH Memory Download for card xxxx started. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 FLASH Memory Download for card xxxx completed. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 8003.0004 * GPL SYSTEM *ZZZZZZ* 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 on standby MASP	**ACT-FLASH:loc=*XXXX*** (Where ***XXXX*** is the location of the standby MASP slot 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.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.x-YY.y.y Upg Phase 3 FLASH Activation for card *XXXX* Completed. ;
11 ☐	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=*XXXX*:MODE=RPLCEBL:BITS=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 Upg Phase 3 BOOTLOADER change for card *XXXX* SUCCESSFUL. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 Command Completed. ;
13 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR:GPL=BLDC32** (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 Upg Phase 3 FLASH Memory Download for card xxxx started. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 FLASH Memory Download for card xxxx completed. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 8003.0004 * GPL SYSTEM **BLDC32** 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 used in the previous command)

Procedure 60: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

16 ☐ ☐	Response to the GPL status command is displayed. Verify that card is running BLDC32 GPL.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 GPL CARD RUNNING APPROVED TRIAL OAMHC XXXX ---------- ---------- ---------- BLDC32 YYY-YYY-YYY+ YYY-YYY-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.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.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.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*:MODE=FULL** (Where *XXXX* is the location of the standby MASP used in the previous command.)
22 ☐ ☐	Response to the card's status report is displayed. Verify that the standby MASP is running the BLDC32 flash GPL.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Upg Phase 3 CARD VERSION TYPE GPL PST SST AST *XXXX* *XXX-XXX-XXX* E5MCAP OAMHC IS-NR Standby --- ALARM STATUS = No Alarms. BLDC32 GPL version = *YYY-YYY-YYY* IMT BUS A = Conn IMT BUS B = Conn MBD BIP STATUS = Valid MOTHER BOARD ID = E5-MCAP DBD STATUS = Valid DBD TYPE = 1G ENET DBD MEMORY SIZE = 4096M HW VERIFICATION CODE = ---- CURRENT TEMPERATURE = 33C (92F) PEAK TEMPERATURE: = 37C (99F) [13-05-19 08:02] TROUBLE TEXT VER. = ---- IPLNK STATUS IPLNK IPADDR STATUS PST A XXX.XXX.XX.XX UP IS-NR Command Completed. ;
23 ☐	If this is the first pass through this procedure, issue command to boot the active MASP. Otherwise, continue to next procedure.	**INIT-CARD:LOC=*YYYY*** (Where ***YYYY*** is the location of the active MASP)
24 ☐	Response to card initialization is shown.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.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.	**LOGIN:UID=*XXXXXX*** (Where ***XXXXXX*** is a valid login ID)
26 ☐	Response to login command is displayed. Ignore any login failure message.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y User logged in on terminal *UU*. ; ? Login failures since last successful LOGIN Last successful LOGIN 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 60: Migrate the MASP cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

28 ☐	Response to print capture command is displayed. Repeat Steps 1 – 22 for the formerly active MASP.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y Scroll Area Output will be echoed to Port *P*. ;

Procedure 61: Migrate the MCPM cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

S T E P #	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. Complete 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**.	
1 ☐	If the source release was 46.5 or prior, issue the MCPM card status command. Otherwise, continue to next procedure	**REPT-STAT-CARD:APPL=MCP**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX MCPM MCPHC IS-NR Active ----- XXXX XXX-XXX-XXX MCPM MCPHC IS-NR Active ----- Command Completed. ;
3 ☐	For each MCPM-type card listed above, issue the GPL status commend.	**REPT-STAT-GPL:LOC=*XXXX*** (Where ***XXXX*** is the location of a MCPM card slot listed in previous step.)
4 ☐ ☐	Response to the status command is displayed. If the "ALM" indictor is displayed for the card's flash image, continue. If card is running BLMCAP, continue. Otherwise repeat step 3 for next MCPM card in list.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL MCPHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ***ZZZZZZ*** ZZZ-ZZZ-ZZZ **ALM** YYY-YYY-YYY YYY-YYY-YYY Command Completed.
5 ☐	Issue command to inhibit the card	**INH-CARD:LOC=*XXXX*** (Where ***XXXX*** is the location of the MCPM card use in previous command.)
6 ☐	Response to the inhibit command is displayed If the "ALM" indication was displayed in step 4, continue. Otherwise, go to step 11.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; **Note**: Wait for the card to boot and return to the IMT bus.

Procedure 61: Migrate the MCPM cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

7 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR** (Where ***XXXX*** is the location of the MCPM card use in previous command.)
8 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If card is running BLDC32, go to step 15. Otherwise, continue.	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 *ZZZZZZ* 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 MCPM card use in previous command.)
10 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card *XXXX* Completed. ;
11 ☐	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=XXXX:MODE=RPLCEBL:BITS=64** (Where ***XXXX*** is the location of the MCPM card use in previous command.)
12 ☐	Response to flash command is shown. If either response is displayed, then proceed to the next step.	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. ; **OR** If the bootloader was succesfully downloaded previously: eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y BOOTLOADER not changed for card *XXXX*. Already running requested bootloader. ; eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y Command Completed. ;
13 ☐	Download target-release flash to the MCPM card.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR:GPL=BLDC32** (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 **BLDC32** Card is running non-activated GPL ; **Note:** Wait for card to boot and return to the IMT bus.
15 ☐	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)
16	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y FLASH Memory Activation for card XXXX Started. ;

Procedure 61: Migrate the MCPM cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

☐		eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y FLASH Activation for card XXXX Completed. ;
17 ☐	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)
18 ☐	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. ;
19 ☐	Retrieve status of the MCPM card if present in the system.	**REPT-STAT-GPL:LOC=*XXXX*** (Where *XXXX* is the location of the card used in the previous command)
20 ☐	Response to GPL status command. ☐ Verify that MCPM card is BLDC32 GPL.	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 MCPHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLDC32** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
21 ☐	Issue command to report the status of the measurement system	REPT-STAT-MEAS
22 ☐	Response to Measurement status command. ☐ Verify that MCPM cards have returned to IS-NR	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y PST SST AST MEAS SS IS-NR Active ----- ALARM STATUS = No Alarms CARD VERSION TYPE PST SST AST XXXX P XXX-XXX-XXX MCPM IS-NR Active ----- IP Link A IS-NR Active ----- XXXX XXX-XXX-XXX MCPM IS-NR Active ----- IP Link A IS-NR Active ----- CARD XXXX ALARM STATUS = No Alarms CARD XXXX ALARM STATUS = No Alarms Command Completed. ;
23 ☐	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.	**Note:** Wait till this flashed MCPM card to complete reloading before proceeding to next step.

Procedure 62: MCP application is provisioned on SLIC card, migrate the same to VxWorks6.9.

S T E P #	This procedure is to migrate the SLIC card running MCP application to Vxworks6.9 from VxWorks6.4. Complete the below procedure for every MCPM application running on SLIC 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**.	
1 ☐	If the source release was 46.5 or prior, issue the MCPM card status command. Otherwise, continue to next procedure	**REPT-STAT-CARD:APPL=MCP**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC MCPHC IS-NR Active ----- XXXX XXX-XXX-XXX SLIC MCPHC IS-NR Active ----- Command Completed. ;
3 ☐	For each card with type equal to SLIC listed above, issue the GPL status commend.	**REPT-STAT-GPL:LOC=*XXXX*** (Where ***XXXX*** is the location of a MCPM/SLIC card slot listed in previous step.)
4 ☐	Response to the GPL status command is displayed. If the "ALM" indictor 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.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL MCPHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLSLC32 ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY Command Completed.
5 ☐	Issue command to inhibit the card	**INH-CARD:LOC=*XXXX*** (Where ***XXXX*** is the location of the MCPM/SLIC card)
6 ☐	Response to the inhibit command is displayed If the "ALM" indication was displayed in step 4, continue. Otherwise, go to step 11.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; **Note**: Wait for the card to boot and return to the IMT bus.
7 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR** (Where ***XXXX*** is the location of the MCPM card use in previous command.)
8 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If card is running BLSL932, go to step 13. Otherwise, continue.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 FLASH Memory Download for card xxxx started. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 FLASH Memory Download for card xxxx completed. ; eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y Upg Phase 3 8003.0004 * GPL SYSTEM ZZZZZZ Card is running non-activated GPL ; **Note:** Wait for card to boot and return to the IMT bus.

Procedure 62: MCP application is provisioned on SLIC card, migrate the same to VxWorks6.9.

9 ☐	Issue command to activate the flash image.	**ACT-FLASH:LOC=*XXXX*** (Where ***XXXX*** is the location of the MCPM card use in previous command.)
10 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.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. 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 **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.x-YY.y.y FLASH Memory Activation for card XXXX Started. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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. Verify that MCPM card is running BLSL932 GPL.	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 MCPHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLSL932** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
19 ☐	Issue command to report the status of the measurement system	REPT-STAT-MEAS

Procedure 62: MCP application is provisioned on SLIC card, migrate the same to VxWorks6.9.

20 ☐ ☐	Response to Measurement status command. Verify that MCPM cards have returned to IS-NR	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x.x.x-YY.y.y PST SST AST MEAS SS IS-NR Active ----- ALARM STATUS = No Alarms CARD VERSION TYPE PST SST AST XXXX P XXX-XXX-XXX MCPM IS-NR Active ----- IP Link A IS-NR Active ----- XXXX XXX-XXX-XXX MCPM IS-NR Active ----- IP Link A IS-NR Active ----- CARD XXXX ALARM STATUS = No Alarms CARD XXXX ALARM STATUS = No Alarms Command Completed. ;
21 ☐	If this is last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3-Step 18 for the next card listed in Step2.	**Note:** Wait till this flashed MCPM card to complete reloading before proceeding to next step.

Procedure 63: Migrate the IPS (ENET-B) cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

S T E P #	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. Complete 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**.	
1 ☐	If the source release was 46.5 or prior, issue the IPSM card status command. Otherwise, continue to next procedure	**REPT-STAT-CARD:APPL=IPS**
2 ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX IPSM IPSHC IS-NR Active ----- XXXX XXX-XXX-XXX IPSM IPSHC IS-NR Active ----- Command Completed. ;
3 ☐	For each IPSM-type card listed above, issue the GPL status commend.	**REPT-STAT-GPL:LOC=*XXXX*** (Where ***XXXX*** is the location of an IPSM card slot listed in previous step.)
4 ☐ ☐	Response to the status command is displayed. If the "ALM" indictor 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.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL IPSHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ***ZZZZZZ*** ZZZ-ZZZ-ZZZ **ALM** YYY-YYY-YYY YYY-YYY-YYY Command Completed.
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. If the "ALM" indication was displayed in step 4, continue. Otherwise, go to step 11.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; **Note**: Wait for the card to boot and return to the IMT bus.
7 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR** (Where ***XXXX*** is the location of the IPSM card use in previous command.)

Procedure 63: Migrate the IPS (ENET-B) cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

8 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If card is running BLDC32, go to step 15. Otherwise, continue.	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 *ZZZZZZ* 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 use in previous command.)
10 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
11 ☐	Issue flash command to download the bootloader image.	**INIT-FLASH:LOC=*XXXX*:MODE=RPLCEBL:BITS=64** (Where ***XXXX*** is the location of the IPSM card use in previous command.)
12 ☐	Response to flash command is shown. If either response is displayed, then proceed to the next step.	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. ; OR If the bootloader was succesfully downloaded previously: eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y BOOTLOADER not changed for card *XXXX*. Already running requested bootloader. ; eaglestp 17-01-20 12:19:04 MST EAGLE XX.x.x.x.x-YY.y.y Command Completed. ;
13 ☐	Download target-release flash to the IPSM card.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR:GPL=BLDC32** (Where ***XXXX*** is the location of the IPSM card use in 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 **BLDC32** Card is running non-activated GPL ; **Note:** Wait for card to boot and return to the IMT bus.
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.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;

Procedure 63: Migrate the IPS (ENET-B) cards running VxWorks 6.4 GPL to VxWorks 6.9 GPL

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.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***
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.x-YY.y.y GPL Auditing ON GPL CARD RUNNING APPROVED TRIAL IPSHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLDC32** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;
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 64: IPS application is provisioned on SLIC card, migrate the same to VxWorks6.9

S T E P #	This procedure is to migrate the SLIC card running IPS application to Vxworks6.9 from VxWorks6.4 Complete 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**.	
1 ☐	If the source release was 46.5 or prior, issue the IPSM card status command. Otherwise, continue to next procedure	**REPT-STAT-CARD:APPL=IPS**
2 ☐ ☐	Response to the card status command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST XXXX XXX-XXX-XXX SLIC IPSHC IS-NR Active ----- XXXX XXX-XXX-XXX SLIC IPSHC IS-NR Active ----- Command Completed. ;
3 ☐	For each IPSM/SLIC card listed above, issue the GPL status commend.	**REPT-STAT-GPL:LOC=*XXXX*** (Where ***XXXX*** is the location of the IPSM/SLIC card slot listed in previous step.)
4 ☐	Response to the GPL status command is displayed. If the "ALM" indictor 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.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL CARD RUNNING APPROVED TRIAL IPSHC XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLSLC32 ZZZ-ZZZ-ZZZ ALM YYY-YYY-YYY YYY-YYY-YYY Command Completed.
5 ☐	Issue command to inhibit the card.	**INH-CARD:LOC=*XXXX*** (Where ***XXXX*** is the location of the IPSM/SLIC card slot listed in previous step.)
6 ☐	Response to the inhibit command is displayed. If the "ALM" indication was displayed in step 4, continue. Otherwise, go to step 11.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Card has been inhibited. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Command Completed. ; **Note**: Wait for the card to boot and return to the IMT bus.
7 ☐	Issue command to download approved flash image.	**INIT-FLASH:LOC=*XXXX*:CODE=APPR** (Where ***XXXX*** is the location of the IPSM/SLIC card use in previous command.)

Procedure 64: IPS application is provisioned on SLIC card, migrate the same to VxWorks6.9

8 ☐ ☐	Response to flash initialization is shown. Verify UAM 0004 is displayed. If card is running BLSL932, go to step 13. Otherwise, continue.	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 ***ZZZZZZ*** 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/SLIC card use in previous command.)
10 ☐	Response to the activate command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y FLASH Activation for card XXXX Completed. ;
11 ☐	Issue flash command to download target-release flash to the IPSM/SLIC 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. 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 **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 IPSM/SLIC 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.x-YY.y.y FLASH Memory Activation for card XXXX Started. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y FLASH Activation for card XXXX Completed. ;
15 ☐	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)
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. Verify that IPSM card is running BLSL932 GPL.	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 IPSHC69 XXXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX **BLSL932** YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY Command Completed. ;

Procedure 64: IPS application is provisioned on SLIC card, migrate the same to VxWorks6.9

19 ☐	If this is last card listed in Step 2, continue to next procedure. Otherwise, repeat Steps 3-Step 18 for the next card listed in Step2.	**Note:** Wait till this flashed IPSM/SLIC card to complete reloading before proceeding to next step.

Procedure 405: Completing Upgrade/Return to Full-Function Mode

S T E P #	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.	**INIT-CARD:APPL=OAM**
2 ☐	Response to the init command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Upg Phase x init-card:appl=oam Command entered at terminal #10. ;
☐	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 0002.0009 CARD 1113 OAMHC MASP became active ;
3 ☐	Issue the command to log back in to the system.	**LOGIN:UID=*XXXXXX*** (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:DISPLAY=ALL**
8 ☐	Response to GPL status command is displayed. Verify that no "ALM" indicator is displayed. If GPL versions are not displayed, wait for the MASPs to return to service and re-issue the command.	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.y GPL Auditing ON GPL CARD RUNNING APPROVED TRIAL OAMHC 1113 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX * BLDC32 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX OAMHC 1115 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX * BLDC32 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ATMHC 1206 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLIXP XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR2 1209 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR2 1210 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR 1109 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR 1110 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7HC 1201 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLIXP XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7HC 1202 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLIXP XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX GLSHC 1213 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLIXP XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX GLSHC 1214 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLIXP XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SCCPHC 1107 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLIXP XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX SCCPHC 1111 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BLIXP XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed. ;
9 ☐	Establish system status	See recommendation # 7 in Section 1.6
10 ■	• For upgrade to Rel 47.1 or later or rollback to Rel	These steps can be used multiple times on different set of cards. Sets will include the cards in the range mentioned in sloc and eloc parameters.

Procedure 405: Completing Upgrade/Return to Full-Function Mode

	47/46.9.x from Rel 47.1 or later. • If any network card failed to flash during network conversion. • If required convert the list of cards to VxWorks 6.4 using steps below.	
11 ☐	Issue the command to download flash GPL in background on multiple cards.	`init-flash:sloc=xxxx:eloc=xxxx:code=appr:mode=backgrnd:gpl=GPLname` (Where ***XXXX*** is card location and GPLname is Flash GPL name.)
12 ■	Issue the command to image select flash GPL on multiple cards.	`init-flash:sloc=xxxx:eloc=xxxx:mode=imgselct:gpl=GPLname` (Where ***XXXX*** is card location and GPLname is Flash GPL name.)
13 ☐	After cards are back on IMT Issue the command to activate the flash.	`act-flash:sloc=xxxx:eloc=xxxx:gpl=GPLname` (Where ***XXXX*** is card location and GPLname is Flash GPL name.)

Procedure 66: Backing up Converted Database

S T E P #	This procedure backs up the converted Target-Release database to the fixed disk and to either the removable media or the DB FTP server if provisioned. 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**.

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[27], and continue Otherwise go to step 23.	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.
2 ■	Issue the command to retrieve measurement status.	`rtrv-meas-sched`

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:
	_____
		`eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y`
		`COLLECT = off`
		`SYSTOT-STP = (off)`
		`SYSTOT-TT = (off)`
		`COMP-LNKSET = (off)`
		`COMP-LINK = (off)`
		`MTCD-STP = (on)`
		`MTCD-LINK = (on)`
		`MTCD-LNKSET = (on)`
		
		`;`

[27] DO NOT use the source release RMD created in Procedure 2.

Procedure 66: Backing up Converted Database

	If COLLECT=ON, continue to next step. Otherwise, go to Step 6.	
4 ☐	Issue the command to turn off measurement collection.	**chg-meas:collect=off**
5 ☐	Response to the change command is displayed.	eaglestp YY-MM-DD hh:mm:ss zzzz PPP XX.x.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.x-YY.y.y CHG-MEAS: MASP A – COMPLTD ;
6 ☐	Issue the command to format the RMD.	**FORMAT-DISK:TYPE=SYSTEM:FORCE=YES**
7 ☐ ☐	Response to format command is displayed. **If the format fails, first repeat the previous step, and then contact My Oracle Support.**	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Format-disk of system removable cartridge started. Extended processing required, please wait. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y Format-disk of system removable cartridge completed. ;
8 ☐	Issue the command to copy the GPLs to the RMD.	**COPY-GPL**
9 ☐	Response to copy command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.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.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. Check entries in 'C' should be coherent, which is indicated by a 'Y'. If all FD BKUP & FD CRNT entries in column 'LEVEL' are the same, go to step 16.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP - -------- ---------- - -------- ---------- FD BKUP Y XXX YY-MM-DD hh:mm:ss TTTT Y XXX YY-MM-DD hh:mm:ss TTTT FD CRNT Y XXX YY-MM-DD hh:mm:ss TTTT Y XXX YY-MM-DD hh:mm:ss TTTT MCAP 1113 MCAP 1115 - -------- - -------- RD BKUP - - - - N 1 - - USB BKP - - - - - - - -
12 ☐	Issue the database command to backup the fixed disks.	**CHG-DB:ACTION=BACKUP**
13 ☐	Response and progress of back up command are displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y BACKUP (FIXED): MASP A - Backup starts on active MASP.

Procedure 66: Backing up Converted Database

		; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y BACKUP (FIXED): MASP A - Backup starts on standby MASP. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.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.x-YY.y.y BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete ;
14 ☐	Issue the command to report database status.	**rept-stat-db**
15 ☐ ☐ ☐	Response to database status command is displayed. Check: entries in 'C' should be coherent, which is indicated by a 'Y'. Verify both 'FD CRNT' and 'FD BKUP' Levels are equal.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP - -------- ---------- - -------- ---------- FD BKUP Y XXX YY-MM-DD hh:mm:ss TTTT Y XXX - - FD CRNT Y XXX Y XXX MCAP 1113 MCAP 1115 - -------- - -------- RD BKUP - - - - N 1 - - USB BKP - - - - - - - - ;
16 ☐	Issue the database command to back up to the target-release RMD.	**chg-db:action=backup:dest=remove**
17 ☐	Response to backup command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 5035.1114 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.x-YY.y.y BACKUP (REMOVABLE): MASP B - Backup starts on active MASP. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y BACKUP (REMOVABLE): MASP B - Backup to removable cartridge complete. ;
18 ☐	Issue the command to report database status.	**rept-stat-db**
19 ☐ ☐	Response to database status command is displayed. Check entries in 'C' should be coherent, which is indicated by a 'Y'.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP - -------- ---------- - -------- ---------- FD BKUP Y XXX 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 - - - - Y XXX YY-MM-DD hh:mm:ss TTTT USB BKP - - - - - - - -

Procedure 66: Backing up Converted Database

20 ☐	Issue the command to display GPL status.	**rtrv-gpl**
21 ☐ ☐	Response from the retrieve command is displayed. Verify that the GPL versions that are displayed in the "RELEASE" and "REMOVE TRIAL" column are correct; see Section 1.3	eaglestp YY-MM-DD hh:mm:ss TTTT EAGLE XX.x.x-YY.yy.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 ---------- GGGGGG1 1113 ---------- ---------- ---------- ---------- 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 ---------- GGGGGG2 1113 ---------- ---------- ---------- ---------- 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 ---------- GGGGGG3 1113 ---------- ---------- ---------- ---------- OAMHC 1114 XXX-XXX-XXX XXX-XXX-XXX ---------- ---------- OAMHC 1116 XXX-XXX-XXX XXX-XXX-XXX ---------- ---------- OAMHC 1113 ---------- ---------- ---------- ---------- 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 ---------- GGGGGG4 1113 ---------- ---------- ---------- ---------- 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 ---------- GGGGGG5 1113 ---------- ---------- ---------- ---------- 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 ---------- GGGGGG6 1113 ---------- ---------- ---------- ---------- ;
22 ☐	Remove the target-release RMD from the drive slot.	**Store the RMD in a safe location.**
23 ☐	If the system is configured for remote backups, issue the database command to backup to remote FTP server. Otherwise, go to step 25.	**chg-db:action=backup:dest=server**
24 ☐	Response to backup command is displayed.	eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y 5035.1114 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.x-YY.y.y BACKUP (SERVER): MASP B - Backup starts on active MASP. ; eaglestp YY-MM-DD hh:mm:ss EST PPP XX.x.x.x.x-YY.y.y BACKUP (SERVER): MASP B - Backup to server complete. ;
25 ☐	If steps 4 & 5 were completed, issue the command to turn the measurements collection on.	**chg-meas:collect=on**
26 ☐	Response to change measurement command is displayed.	eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y chg-meas:collect=on Command entered at terminal #10. ; eaglestp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x.x.x-YY.y.y CHG-MEAS: MASP A - COMPLTD ;

APPENDIX H. 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: _____

APPENDIX I.MY ORACLE SUPPORT

CAUTION: Use only the guide downloaded from the Oracle Technology Network (OTN) (http://www.oracle.com/technetwork/indexes/documentation/oracle-comms-tekelec-2136003.html).

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

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

- For Technical issues such as creating a new Service Request (SR), select **1**.
- For Non-technical issues such as registration or assistance with My Oracle Support, select **2**.
- For Hardware, Networking and Solaris Operating System Support, select **3**.

You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 365 days a year.