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Global Product Solutions

Software Upgrade Procedure

EAGLE 5 ISS 40.1, 41.x, 42.x, 43.x, & 44.x



CAUTION: Use only the Upgrade procedure included in the Upgrade Kit. Before upgrading any system, please access Tekelec's Customer Support site and review any Technical Service Bulletins (TSBs) that relate to this upgrade. Refer to Appendix F for instructions on accessing this site.

Contact the Tekelec Customer Care Center and inform them of your upgrade plans prior to beginning this or any upgrade procedure.

Phone: 1-888-FOR-TKLC (1-888-367-8552) or 919-460-2150 (international)
FAX: 919-460-2126
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CHANGE HISTORY

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1. INTRODUCTION

1.1 Purpose and Scope

This document describes methods utilized and procedures executed to perform a software upgrade on any in-service EAGLE®-based STP to EAGLE® Software Release 40.1¹, 41.0, 41.x, 42.x, 43.x, & 44.x as well as any future maintenance releases. The audience for this document includes Tekelec customers as well as these EAGLE® GPS groups: Software Development, Product Verification, Technical Communications, and Customer Service including the Upgrade Center and New Product Engineering. This document provides step-by-step instructions to execute any upgrade to Release 40.1¹, 41.x, 42.x, 43.x, & 44.x.

For upgrades on Eagle 5 systems with E5-MASPs, this document should be used to upgrade to 40.1.1, 40.1.2, and any future 40.1 maintenance build using either Media Software Distribution or Electronic Software Distribution.

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

1.2 References

1.2.1 External

- [1] *EAGLE5 ISS 31.6 and above Health Check Procedure*, 909-0656-001, latest revision, Tekelec
- [2] *EAGLE 5 ISS 40.1 Maintenance Manual*, 910-5559-001, latest revision, Tekelec
- [3] *EAGLE 5 ISS 40.1 Database Administration – System Management*, 910-5553-001, latest revision, Tekelec
- [4] *EAGLE 5 ISS 41.0 Maintenance Manual*, 910-5589-001, latest revision, Tekelec
- [5] *EAGLE 5 ISS 41.0 Database Administration – System Management*, 910-5583-001, latest revision, Tekelec
- [6] *EAGLE 5 ISS 42.0 Maintenance Manual*, 910-5884-001, latest revision, Tekelec
- [7] *EAGLE 5 ISS 42.0 Database Administration – System Management*, 910-5882-001, latest revision, Tekelec
- [8] *EAGLE 5 ISS 43.0 Maintenance Manual*, 910-6017-001, latest revision, Tekelec
- [9] *EAGLE 5 ISS 43.0 Database Administration – System Management*, 910-6015-001, latest revision, Tekelec
- [10] *EAGLE 5 ISS 44.0 Maintenance Manual*, 910-6282-001, latest revision, Tekelec
- [11] *EAGLE 5 ISS 44.0 Database Administration – System Management*, 910-6280-001, latest revision, Tekelec

1.2.2 Internal (Tekelec)

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

- [12] EAGLE Hardware Field Baseline, 820-2410-01, latest revision, Tekelec.
- [13] *TEKELEC Acronym Guide*, MS005077.doc, current revision
- [14] Tekelec Eagle - Eng Release Mapping web page, http://devtools.nc.tekelec.com/cgi-bin/eng_eag.cgi, Tekelec.
- [15] Tekelec CSR-PR Reports By Build, http://devtools.nc.tekelec.com/cgi-bin/release_desc.cgi
- [16] EAGLE 40.1 Product Functional Specification, PF005441, latest version Tekelec.
- [17] EAGLE 41.0 Product Functional Specification PF005442, latest version Tekelec.
- [18] Tekelec Tekpedia web page, [http://nsdsolaris2.nc.tekelec.com/tekpedia/index.php/Methods_to_correct_distributed_network_database_\(DDB\)_inconsistencies](http://nsdsolaris2.nc.tekelec.com/tekpedia/index.php/Methods_to_correct_distributed_network_database_(DDB)_inconsistencies), Tekelec.
- [19] EAGLE 42.0 Product Functional Specification PF005488, latest version Tekelec.
- [20] EAGLE 42.1 Product Functional Specification PF006051, latest version Tekelec.
- [21] EAGLE 43.0 Product Functional Specification PF005993, latest version Tekelec.
- [22] EAGLE 44.0 Product Functional Specification PF006052, latest version Tekelec.

¹ This document is for E5-MASP upgrades to 40.1.1, 40.1.2 or future 40.1 maintenance releases.”

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 the Customer Support web site. Appendix F describes how to access the Customer Support web site. For FOA releases or Engineering prototype releases, refer to internal references [14] 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 or to the *Release Notice* located on the Customer Support web site. Appendix F describes how to access the Customer Support web site. For FOA releases or Engineering prototype releases, refer to internal references [14] in section 1.2.2.

1.5 Acronyms

Table 1. Acronyms	
AWA	Alternate Work Area
DDB	Dynamic Database
DDL	Dynamic Data Load
E5-OAM	Eagle 5 Operation, Admission, & Maintenance.
EOAM	Enhanced Operation, Admission, & Maintenance.
FAK	Feature Access Key
FOA	First Office Application
GA	General Availability
GLS	Generic Loading Service
GPL	Generic Program Load
GPSM	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
MAS	Maintenance and Administration Subsystem
MCPM	Measurement Collection and Polling Module
MDAL	Maintenance Disk and Alarm Card
MO	Magneto Optical (removable disk cartridge)
MOP	Method Of Procedure
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
SAK	Software Access Key
SATA	Serial ATA
SEAS	Signaling Engineering and Administration System
SSD	Server Software Delivery

STP	Signal Transfer Point
TDM	Terminal Disk Module
TPS	Transactions Per Second (feature)
TSM	Translation Services Module
UHC	Upgrade Health Check

For additional Acronyms; refer to internal references [13] in section 1.2.2.

Terminology

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.
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 is 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	MO cartridges for legacy systems or credit card drives for E5-OAM systems

Table 3: Legacy VS. E5-OAM Terminology

Generic Term	Legacy Term	E5-OAM Term
Drive Slot	MO drive on the MDAL	Thumb Drive on the E5-MCAP
Fixed Disk	TDM	Sata Drive
MASP	GPSM/TDM	E5-MCAP
Removable media	Removable cartridge	Removable media
RMD	MO	Thumb Drive
Upgrade media	MO	Credit Card 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 designated ports 17 and above.
2. It is recommended that measurement collection be retrieved prior to upgrade execution because, if the MCPM feature is not enabled, the data collected is not 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 TDM.
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 **thres** parameter equal to 75. The threshold parameter is specified at 75 to ensure that 75% of same type of links remains in service during the network conversion of the upgrade execution. The following command is issued in Procedure 8, **Step 1**:

ACT-UPGRADE:ACTION=CONVERTSTP:THRES=75

Based on a system's configuration and customer objectives, the thres parameter may be adjusted or the parameter may be applied to the total number of links configured on the system. If the network conversion phase of the upgrade is pushing the execution of the upgrade outside the maintenance window applying the threshold value on a system basis will help expedite the upgrade execution. Please contact Tekelec Customer Care Center 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 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

```

2. GENERAL DESCRIPTION

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

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

Contact Tekelec Customer Care Center at 1-888-FOR-TKLC (1-888-367-8552); or 1-919-460-2150 (international) for time estimates for each portion of the upgrade process.

Figure 1 - Upgrade Process

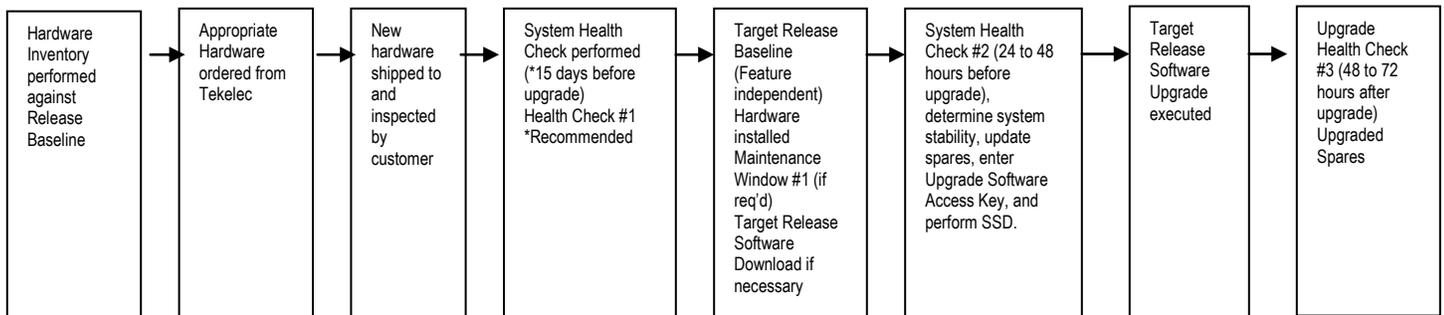


Table 4 contains a checklist of the steps required to successfully complete the upgrade process.

Upgrade Process Task	Date completed
Hardware Inventory	
Hardware Ordered	
New Hardware received	
System Health Check #1 performed	
System Health Check #1 output verified	
Target Release Baseline Hardware installed	
New Software Release downloaded if necessary (E5-MASP) or capability available (Electronic software Distribution).	
System Health Check #2 performed	
Enter Upgrade Software Access Key	
System Health Check #2 verified	
Software Upgrade Session 1 completed	
Health Check #3 performed	
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 9. 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 ²	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

² Over the evolution of the upgrade process, Phase 1 is considered an error state.

3. UPGRADE OVERVIEW

This section provides a brief overview of the recommended method for upgrading the source release software that is installed and running on an EAGLE® STP to the Target Release software. The basic upgrade process and approximate time frame is outlined in Table 6: Upgrade Readiness Activities, Table 7: Pre-Upgrade Execution Activities, Table 8: Upgrade Execution Overview and Table 9: Post Upgrade Overview with the backout procedure shown in Table 10: Backout Procedure Overview.

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

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

3.1 Required Materials

1. One (1) source release system removable media.
2. One (1) target-release upgrade media at database level 1 for MSD.
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 Tekelec Customer Care Center personnel.
6. List of GPLs from section 1.3 should be kept on hand for reference throughout the upgrade. Or refer to Appendix F to locate the Release Notice / Feature Notice on the Customer Support Center web site
7. The Software Access Key (SAK) must be available and entered (this activity should be done during the same maintenance window as the upgrade health check #2.)

3.2 Upgrade Preparation Overview

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

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	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 executed 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 TDM	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 executed 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 ³	Hhour	Network Conversion	Intrusive

Table 8: Upgrade Execution Overview

³ See EAGLE System Health Check Appendix-A Reference [1] to calculate time estimate for Network Conversion phase

The procedures shown in Table 9: Post Upgrade Overview are executed in the maintenance window.

Session / Phase	Time Frame	Activity	Impact
Phase 3	Hhour + 3	Force the Download of the TDMs	Non-intrusive
Phase 3	Hhour + 3	Completing Upgrade/Return to Full Function Mode.	Non-intrusive
Post-upgrade	Hhour + 3	Backing Up Converted Database	Non-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 executed 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 Customer Care Center 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.
- 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 (TDMs \ Sata fixed drives) and at least one source-release removable media (two if using SSD). If MSD, two target-release upgrade media drives (MO cartridges for legacy systems or credit card drives for E5-OAM systems) are shipped to site 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 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 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

Before upgrade execution, the customer will need to perform a few steps based upon the OAM platform installed on the system. Starting with release 39.2 it is necessary for the customer to obtain a Software access Key (SAK) from Tekelec to perform the upgrade; the SAK should be entered during System Health Check #2 (see 6.4Appendix C). The SAK is used in the validation of the target release software. Also, the target release software may need to be loaded onto the inactive partition of the TDMS (see 6.4Appendix B). This is required for the E5-MASP platform and optional for the Legacy OAM. The release can either be downloaded from the E5-MASP upgrade media (credit card USB) or via an FTP server. In order to utilize this software download capability via an FTP server, the EAGLE must be running (source upgrade release) release 39.2 or above and an E5-IPSM installed in the system. See General Description section for general steps and timeline associated with the upgrade process.

Table 15. Software Upgrade Preparation

Action	Legacy OAM Platform	E5-MASP Platform
Target Release Software Download	Optional	Required
SAK entry	Required	required

5. SOFTWARE UPGRADE PROCEDURE

Call the Tekelec Customer Care Center at 1-888-FOR-TKLC (1-888-367-8552); or 1-919-460-2150 (international) 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 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 Tekelec Customer Care Center. If any card cannot be brought in-service or out-of-service, isolated, the card should be inhibited in Phase 2 (procedure 8). If any GLS card is in OOS-MT or IS-ANR state, none of the SCCP or LIM cards will load. If any LIM card is in OOS-MT state, this will prohibit the STPLAN cards from loading. The sequence of upgrade is such that cards providing support services to other cards will be upgraded first.

***** WARNING *****

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

Please read the following notes on upgrade procedures:

1. Procedure completion times shown here are estimates. Times may vary due to differences in database size, user experience, and user preparation.
2. Command steps that require user entry are indicated with white-on-black step numbers.
3. The shaded area within response steps must be verified in order to successfully complete that step.
4. Where possible, EXACT command response outputs are shown. EXCEPTIONS are as follows:
 - Banner information is displayed in a format form only.
 - System-specific configuration information such as **card location, terminal port # assignments, and system features.**
 - ANY information marked with "XXXX" or "YYYY." Where appropriate, instructions are provided to determine what output should be expected in place of "XXXX or YYYY"
5. After completing each step and at each point where data is recorded from the screen, a check box should be provided.
6. Captured data is required for future support reference if Tekelec Customer Care Center is not present during the upgrade.
7. Each procedural step is numbered chronologically within each procedure. Some steps are split into an 'A' version and 'B' version (i.e. 3A and 3B.) If upgrading a legacy system use the 'A' steps. If upgrading an E5-OAM system, user the 'B' steps.

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 TEKELEC Customer Care Center AND ASK FOR UPGRADE ASSISTANCE.	
1 <input type="checkbox"/>	Complete pre-upgrade tasks	All tasks in Table 16 must be completed before continuing.

Table 16. 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 Tekelec for upgrade Or Target-Release software has been downloaded to the EAGLE (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 Tekelec Customer Care Center.
	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]

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

<p>2</p> <p><input type="checkbox"/></p>	<p>Issue the command to display terminal status.</p>	<pre>rtrv-trm</pre>
<p>3</p> <p><input type="checkbox"/></p> <p>Record the terminals in the TRM column that have TYPE of PRINTER⁴. Also record any terminals being used to enter commands (the user terminal)⁵ 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.</p> <p><input type="checkbox"/> Capture _____⁶</p> <p><input type="checkbox"/> USER _____⁷</p> <p><input type="checkbox"/> Ext. Application: _____⁶</p> <p><input type="checkbox"/> See recommendation #1 & #6 in section 1.6</p> <p><input type="checkbox"/> If not echoing to the printer or KSR, go to step 8.</p> <p><input type="checkbox"/> Record the initial output group configuration for the user's and capture terminals. Also, record the user's TMOUT value.</p>	<p>Response to retrieve terminal command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y rtrv-trm Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 _____</pre>
<p>4</p> <p><input type="checkbox"/></p>	<p>Echo command input to capture terminal.</p> <p>If the capture terminal is the user terminal go to step 8.</p>	<pre>act-echo:trm=P (Where the value for P is one of the printer/KSR terminal port numbers recorded in Step 3)</pre>
<p>5</p> <p><input type="checkbox"/></p>	<p>Response to activate command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y act-echo:trm=P Command entered at terminal #10. ;</pre>
<p>6</p> <p><input type="checkbox"/></p>	<p>If capture terminal's output groups are not all set to YES, issue the change terminal command.</p>	<pre>chg-trm:trm=P:all=yes⁷ (P is the terminal port that is specified in step 4)</pre>

⁴ Record terminal that has type of KSR in addition to printers that are configured. Terminal being used to capture cannot be a Telnet terminal, see recommendation #6 in section 1.6

⁵ The user terminal cannot be a Telnet terminal, see recommendation #6 in section 1.6.

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

⁷ 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

7 <input type="checkbox"/>	Response to change terminal command is displayed.	tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y chg-trm:trm=P:all=yes Command entered at terminal #10. ;
8 <input type="checkbox"/>	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:sa=yes:sys=yes:db=yes:tmout=0 (Where the value of <i>USER</i> is the user terminal number shown in Step3)
9 <input type="checkbox"/>	Response to change terminal command is displayed.	tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y chg-trm:trm=USER:sa=yes:sys=yes:db=yes:tmout=0 Command entered at terminal #10. ;
10 <input type="checkbox"/>	Issue the command to display the system features	rtrv-feat
11 <input type="checkbox"/>	Response to retrieve features command is displayed.	tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y EAGLE FEATURE LIST GTT = off GWS = off NRT = off X25G = off LAN = off CRMD = off SEAS = off LFS = off MTPRS = off FAN = off DSTN5000 = off WNP = off CNCF = off TLNP = off SCCPCNV = off TCAPCNV = off IPISUP = off X252000 = off PLNP = off NCR = off ITUMTPRS = off SLSOCB = off EGTG = off VGTT = off MPC = off ITUDUPPC = off MEASPLAT = off TSCSYNC = off E5IS = off RSET = off ;
12 <input type="checkbox"/>	Issue the command to display the FAK features.	rtrv-ctrl-feat
13 <input type="checkbox"/>	Response to retrieve command is displayed.	tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 XXXXXXXXXX on ---- FEATURE_B XXXXXXXXXX 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 <input type="checkbox"/>	Issue the command to display the system serial number.	rtrv-serial-num
15 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	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. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y System serial number = nt00009999 System serial number is locked .

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

16 <input type="checkbox"/>	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 <i>YYMMDD</i> is today's date and <i>HHMMSS</i> is one hour ago.) (Where <i>XXXX</i> , <i>YYYY</i> , and <i>NNN</i> are the values listed in Table 17.)
17 <input type="checkbox"/> <input type="checkbox"/>	Response to retrieve command is displayed. Determine if the report termination reason meets the pass/fail criteria in Table 18.	tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Card 1113; SYS REL= 35.1.0-56.31.0; STP CLLI= tk1c1190601; 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 <input type="checkbox"/>	Repeat steps 16-17 for all sets of UAMs listed in Table 17.	

Table 17: DDL-Hunt-related UAM ranges.

	SNUM	ENUM	NUM	UAM Text*
	<i>Start UAM</i>	<i>End UAM</i>	<i>Maximum Events</i>	
<input type="checkbox"/>	200	200	15	RCVRY-LFK: link available
<input type="checkbox"/>	236	236	15	REPT-LFK: not aligned
<input type="checkbox"/>	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
<input type="checkbox"/>	311	313	50	DPC is prohibited DPC is restricted DPC is allowed
<input type="checkbox"/>	314	316	50	Route is prohibited Route is restricted Route is allowed

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

Table 18: Retrieve Log Termination Pass/Fail Criteria:

Termination Reason	Pass/Fail	
- no records found within specified range	Pass	
- X records displayed (where X is less than NUM.)	Pass	
- max. or num= count reached	<i>Further Analysis Required</i>	See Appendix, D.3

Procedure 2: Backing Up the Database

<p>S T E P #</p>	<p>This procedure backs up the 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.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>
<p>1 <input type="checkbox"/></p>	<p>Issue the command to display database status.</p> <p>rept-stat-db</p>
<p>2A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response from the command is displayed.</p> <p>Look in the columns labeled 'C' and 'LEVEL' output by this command.</p> <p>Verify entries in column 'C' show 'Y' which indicates coherence.</p> <p>Verify both 'FD CRNT' Levels are equal.</p> <pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y rept-stat-db Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (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 MDAL 1117 RD BKUP Y ----- ----- -:--:-- ----- ; </pre>
<p>2B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response from the command is displayed.</p> <p>Look in the columns labeled 'C' and 'LEVEL' output by this command.</p> <p>Verify entries in column 'C' show 'Y' which indicates coherence.</p> <p>Verify both 'FD CRNT' Levels are equal.</p> <pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (STDBY) 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 MCAP 1113 RD BKUP Y XXXX YY-MM-DD HH:MM:SS TTTT Y XXXX YY-MM-DD HH:MM:SS TTTT USB BKP - - - - - - - - - - - - ; </pre>
<p>3 <input type="checkbox"/></p>	<p>Issue the command to back up the database.</p> <p>chg-db:action=backup</p>
<p>4 <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response to backup command is displayed.</p> <p>Command execution time: approximately 4 – 20 minutes, longer for large databases.</p> <pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 5042.1114 CARD 1115 Database BACKUP started Report Date:YY-MM-DD Time:hh:mm:ss ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y BACKUP (FIXED): MASP B - Backup starts on active MASP. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y BACKUP (FIXED): MASP B - Backup on active MASP to fixed disk complete. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y BACKUP (FIXED): MASP B - Backup starts on standby MASP. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 5045.1116 CARD 1115 Database action ended - OK Report Date:YY-MM-DD Time:hh:mm:ss ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y BACKUP (FIXED): MASP B - Backup on standby MASP to fixed disk complete. ; </pre>
<p>5 <input type="checkbox"/></p>	<p>Visually inspect the RMD to verify that it is labeled with the source release.</p>

Procedure 2: Backing Up the Database

6 <input type="checkbox"/>	Insert the source-release RMD into the drive slot.	Wait for the RMD to spin up.
7 <input checked="" type="checkbox"/>	Issue the Change-Database command to back up the database to RMD.	chg-db:action=backup:dest=remove
8 <input type="checkbox"/>	Response to backup command is displayed. Note that this command requires about 4 - 20 minutes, longer for large databases.	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y chg-db:action=backup:dest=remove Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y BACKUP (REMOVABLE): MASP A - Backup starts on active MASP ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y BACKUP (REMOVABLE): MASP A - Backup to removable cartridge complete ; </pre>
9 <input checked="" type="checkbox"/>	Issue the command to copy the GPLs to RMD.	copy-gpl
10 <input type="checkbox"/>	Response to copy command is displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y copy-gpl Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y COPY GPL: MASP A - COPY STARTS ON ACTIVE MASP COPY GPL: MASP A - COPY TO REMOVABLE CARTRIDGE COMPLETE ; </pre>
11 <input type="checkbox"/>	Eject the Source-Release RMD.	The RMD should be stored in a safe location.

Procedure 3: Updating the Source-Release Spare Fixed Disk

S T E P #	<p>This procedure backs up the database to the spare fixed disk to ensure that a valid recovery spare is available.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
1 <input type="checkbox"/>	<p>Issue the report card status command.</p>	<p>rept-stat-card:appl=oam</p>
2 <input type="checkbox"/> <input type="checkbox"/>	<p>Response to the card status command is displayed.</p> <p>Record the card locations of both sets of MASPs and fixed disks as well as the part number of the E5-MASP or TDM:</p> <p>Act MASP _____</p> <p>Act Fixed Disk _____</p> <p>p/n _____</p> <p>Stby MASP _____</p> <p>Stby Fixed Disk _____</p> <p>p/n _____</p>	<p><u>Legacy:</u></p> <pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1113 XXX-XXX-XXX GPSP EOAM IS-NR Active ----- 1115 XXX-XXX-XXX GPSP EOAM IS-NR Standby -----</pre> <p>Command Completed.</p> <p>;</p> <p>OR</p> <p><u>E5OAM:</u></p> <pre>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 -----</pre> <p>Command Completed.</p> <p>;</p>
3A <input type="checkbox"/>	<p>Place spare TDM in system.⁸</p> <p>Record the part number for the spare TDM:</p> <p>p/n _____</p>	<p><input type="checkbox"/> Unseat the standby GPSM card determined in step 2.</p> <p><input type="checkbox"/> Remove the standby TDM card determined in step 2.</p> <p><input type="checkbox"/> Insert the spare TDM card.</p> <p><input type="checkbox"/> Re-seat the standby GPSM card.</p> <p>Note: UAMs are generated during this step. An audible alarm is generated. Wait for the standby MASP/spare TDM to come up in standby mode and system returns to duplex mode.</p>
3B <input type="checkbox"/>	<p>Place spare E5-MASP in system.⁹</p> <p>Record the part number for the spare TDM:</p> <p>p/n _____</p>	<p><input type="checkbox"/> 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).</p> <p><input type="checkbox"/> Remove the standby E5-MASP card determined in step 2.</p> <p><input type="checkbox"/> Insert the spare E5-MASP card.</p> <p><input type="checkbox"/> Slide the MASP H/S switch (SW3) on the 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).</p> <p>Note: UAMs are generated during this step. An audible alarm is generated. Wait for the spare MASP to come up in standby mode and system returns to duplex mode.</p>
4 <input type="checkbox"/>	<p>Issue the report status command for the standby MASP.</p>	<p>rept-stat-card:loc=xxxx:mode=full (Where xxx is the STBY MASP slot from step 2 above)</p>

⁸ The spare TDM should be the one verified by upgrade Health Check #2, see section 1.2.1 ref [1].

⁹ The spare TDM 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

<p>5</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Verify that the backup goes to IS-NR</p> <p>Record the flash GPL type:</p> <p>BPDCM BPDCM2 BLMCAPI</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y rept-stat-card:loc=xxxx Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST xxxx xxx-xxx-xxx GPSM EOAM IS-NR Standby DB-DIFF ALARM STATUS = No Alarms. FFFFF GPL version = XXX-XXX-XXX IMT BUS A = Conn IMT BUS B = Conn Command Completed. ;</pre>
<p>6</p> <p><input type="checkbox"/></p>	<p>Issue the command to retrieve GPL versions.</p>	<pre>rtrv-gpl</pre>
<p>7A</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response from the retrieve command is displayed.</p> <p>Verify correct source release levels.</p> <p>If any of the standby TDM gpls show an ALM indication it is possible that the TDM has not gone through session 2 of the previous upgrade. Stop the procedure and contact Tekelec Customer Care Center.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y GPL Auditing ON APPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL EOAM 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- EOAM 1116 xxx-xxx-xxx xxx-xxx-xxx ALM xxx-xxx-xxx ----- GLS 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- GLS 1116 xxx-xxx-xxx xxx-xxx-xxx ALM xxx-xxx-xxx ----- CDU 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- CDU 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- IMT 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- IMT 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- ATMANSI 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- ATMANSI 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- BPHCAP 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- BPHCAP 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- BPDCM 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- BPDCM 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- BLMCAPI 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- BLMCAPI 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- OAMHC 1114 xxx-xxx-xxx xxx-xxx-xxx ALM xxx-xxx-xxx ----- OAMHC 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- HIPR2 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- HIPR2 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- VXWSLAN 1114 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx ----- VXWSLAN 1116 xxx-xxx-xxx xxx-xxx-xxx xxx-xxx-xxx -----</pre>
<p>7B</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response from the retrieve command is displayed.</p> <p>Verify correct source release levels.</p> <p>If any of the standby E5-MAPS 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 Tekelec Customer Care Center.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL EOAM 1114 xxx-xxx-xxx xxx-xxx-xxx ----- EOAM 1116 xxx-xxx-xxx xxx-xxx-xxx ALM ----- EOAM 1113 ----- 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 -----</pre>

Procedure 3: Updating the Source-Release Spare Fixed Disk

<p>8 <input type="checkbox"/></p>	<p>Issue the command to repair the standby TDM's database.</p>	<p>chg-db:action=repair</p> <p>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.</p>	
<p>9 <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response to the repair command is displayed.</p> <p>Command execution time: between 20 and 41 minutes</p> <p>Wait for the 'repair complete' message to display and the MASP returns to in-service.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y chg-db:action=repair Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y REPAIR: MASP A - Repair starts on standby MASP. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y REPAIR: MASP A - Repair from fixed disk complete. ;</pre>	
<p>10A <input type="checkbox"/></p>	<p>Place original standby TDM back in system.</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>Unseat the standby MASP card determined in step 2.</p> <p>Remove the standby TDM card determined in step 2.</p> <p>Insert the original standby TDM card.</p> <p>Re-seat the standby MASP card.</p> <p>Note: UAMs are generated during this step. An audible alarm is generated.</p> <p>Wait for the standby MASP/TDM to come up in standby mode and system returns to duplex mode.</p>
<p>10B <input type="checkbox"/></p>	<p>Place original standby E5-MASP in system.</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>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).</p> <p>Remove the standby E5-MASP card determined in step 2.</p> <p>Insert the spare E5-MASP card.</p> <p>Slide the MASP H/S switch (SW3) on the 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).</p> <p>Note: UAMs are generated during this step. An audible alarm is generated.</p> <p>Wait for the standby E5-MASP to come up in standby mode and system returns to duplex mode.</p>

Procedure 4: Verifying All Databases

<p>S T E P #</p>	<p>This procedure verifies that all databases are coherent and at the same level, which includes current and backup partitions on both fixed disks.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>
<p>1 <input type="checkbox"/></p>	<p>Issue the command to display database information.</p> <p style="text-align: center;">rept-stat-db:display=all</p>
<p>2 <input type="checkbox"/></p> <p>Response to the command is displayed.</p> <p>Look in the columns labeled 'C', 'T', and 'LEVEL' output by this command.</p> <p><input type="checkbox"/> Verify entries in column 'C' show 'Y', which indicates coherence.</p> <p><input type="checkbox"/> Verify entries in column 'T' show 'N' (backup and RMD may show a dash), which indicates that the database is not in transition.</p> <p><input type="checkbox"/> Verify all entries in the database LEVEL column are the same. LEVEL is a value, which varies depending on the system.</p> <p><input type="checkbox"/> If the STDBY databases are not coherent or at the correct level, repeat Procedure 3, step 8.</p> <p><input type="checkbox"/> Verify that the MPS databases are coherent.</p>	<pre> Legacy: tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y DATABASE STATUS: >> OK << 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 MDAL 1117 RD BKUP Y ----- :--:-- :--:-- CARD/APPL LOC C T LEVEL TIME LAST UPDATE EXCEPTION ----- SS7ML 1101 Y N XXX YY-MM-DD HH:MM:SS - IPLIM 1103 Y N XXX YY-MM-DD HH:MM:SS - GLS 1105 Y N XXX YY-MM-DD HH:MM:SS - MCP 1106 Y N XXX YY-MM-DD HH:MM:SS - VSCCP 1107 Y N XXX YY-MM-DD HH:MM:SS - IPS 1111 Y N XXX YY-MM-DD HH:MM:SS - TDM-CRNT 1114 Y N XXX YY-MM-DD HH:MM:SS - TDM-BKUP 1114 Y - YYY YY-MM-DD HH:MM:SS DIFF LEVEL TDM-CRNT 1116 Y N XXX YY-MM-DD HH:MM:SS - TDM-BKUP 1116 Y - YYY YY-MM-DD HH:MM:SS DIFF LEVEL MDAL 1117 Y - - - - - ; E5OAM: tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y DATABASE STATUS: >> OK << 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 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 - 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 - ; </pre>

Procedure 5: Inserting Target-Release System Removable Media

S T E P #	<p>This procedure ensures that the target-release removable media is inserted into the drive slot. Also, verify that the Upgrade Software Access Key has been entered.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR UPGRADE ASSISTANCE.</p>	
1 <input type="checkbox"/>	<p>If target release is contained on the inactive partition, go to step 6.</p> <p>Otherwise, visually inspect the target-release RMD.</p>	<p>Only continue to next step, if a legacy system is being upgraded that DID NOT use the electronic software delivery method, otherwise go to step 6.</p> <p>The label on the removable media should have the target release printed on it.</p>
2 <input type="checkbox"/>	<p>Insert the target-release RMD into the drive slot.</p>	<p>Allow for the RMD to spin up.</p>
3 <input type="checkbox"/>	<p>Issue the command to retrieve GPL versions¹⁰.</p>	<p>rtrv-gpl</p>
4 <input type="checkbox"/>	<p>Response from the retrieve command is displayed. (If no data is displayed, allow more time for step 2, then repeat step 3.)</p> <p>Verify that the GPL versions that are displayed in the “REMOVE TRIAL” are correct; see Section 1.3</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y GPL Auditing ON APPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL EOAM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- EOAM 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7ANSI 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- SS7ANSI 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SCCP 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- SCCP 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX GLS 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- GLS 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX CDU 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- CDU 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX CCS7ITU 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- CCS7ITU 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7GX25 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- SS7GX25 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX STPLAN 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- STPLAN 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- IMT 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ATMANSI 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- ATMANSI 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHCAP 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- BPHCAP 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPDCM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- BPDCM 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EMDC 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- EMDC 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EBDABLM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- EBDABLM 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX VXWSLAN 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ----- VXWSLAN 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX</pre>
5 <input type="checkbox"/>	<p>If GPLs are not correct, do the following until successful:</p>	<ol style="list-style-type: none"> 1. Eject the RMD and repeat Steps 1-4. 2. Contact Tekelec Customer Care Center. 3. Establish System Status [See recommendation # 7 in Section 1.6]

¹⁰ Due to internal system changes between certain source and target releases, DMS_UTL.C troubles and DMS Errors are generated when this command is issued. This output is expected and has no functional impact; continue with the procedure.

Procedure 5: Inserting Target-Release System Removable Media

<p>6</p> <p><input type="checkbox"/></p>	<p>If the upgrade source release is 39.2 or above, validate the Software Access Key with the upgrade target release. Otherwise, proceed to the next procedure.</p>	<p>ACT-UPGRADE:ACTION=CHKREL:SRC=ZZZZ</p> <p>(Where zzzz is the disk that contains the upgrade target release <i>src=remove</i> if target release on RMD or <i>src=fixed</i> if target release is on the inactive partition)</p>
<p>7</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response from the validation.</p> <p>Verify the Upgrade target release is correct and the Software Access Key is valid.</p> <p>If either the upgrade target release is incorrect or the Software Access Key is invalid STOP the upgrade and contact Tekelec Customer Care Center.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y act-upgrade:action=chkrel:src=zzzz Command entered at terminal #10. ; Upgrade target: EAGLE XX.x.x-YY.y.y Software Access Key valid for target release ; Command Complete : Upgrade action completed successfully</pre>

Procedure 6: Initializing MASP's to Run on Target-Release GPLs

S T E P #	<p>This procedure loads the target-release GPL to both MASP's. This procedure requires that both MASP's be rebooted (one at a time) and verified as running the target-release GPLs.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR UPGRADE ASSISTANCE.</p>
1 <input type="checkbox"/>	<p>If system is running the E5-OAM platform, remove the thumb drives from E5-MASP's.</p>
2 <input type="checkbox"/>	<p>If target-release is contained on the RMD, continue with next step.</p> <p>Otherwise, if target-release is contained on the inactive partition, go to Step 7.</p> <p>Note: the target-release should be downloaded to the inactive partition prior to the execution of this procedure (see section 4.2.)</p>
3 <input type="checkbox"/>	<p>Issue command to retrieve the flash version from the RMD.</p> <p>RTRV-GPL : GPL=FFFF</p> <p>(Where FFFF is BPDCM on the first time executing this step or BPDCM2 on the second time)</p>
4 <input type="checkbox"/> <input type="checkbox"/>	<p>Response to retrieve command is displayed.</p> <p>Record the "REMOVE TRIAL" version:</p> <p>_____</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL FFFF 1114 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY ----- FFFF 1116 YYY-YYY-YYY YYY-YYY-YYY YYY-YYY-YYY XXX-XXX-XXX</pre>
5 <input type="checkbox"/>	<p>Issue the command to change the GPL.</p> <p>CHG-GPL : GPL=FFFF:VER=XXX-XXX-XXX</p> <p>(Where xxx-xxx-xxx is the GPL version recorded in the previous step & FFFFF is the flash type used in step 3 above.)</p>
6 <input type="checkbox"/> <input type="checkbox"/>	<p>Response to change GPL command is displayed.</p> <p>Repeat steps 3 – 6 for BPDCM2.</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y chg-gpl:gpl=FFFF:ver=XXX-XXX-XXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FFFF upload to 1116 completed FFFF upload to 1114 completed System Release ID table uploaded to 1116 completed System Release ID table uploaded to 1114 completed ;</pre>
7 <input type="checkbox"/>	<p>Inhibit the standby MASP</p> <p>INH-CARD : LOC=XXXX</p> <p>(Where XXXX is the location of the standby MASP slot recorded in Procedure 3, Step 2)</p>
8 <input type="checkbox"/>	<p>Response to the inhibit command is displayed</p> <pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Card is inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x ** 5045.0514 ** CARD XXXX EOAM Standby MASP is inhibited ;</pre> <p>Note: wait for the card to boot and return to the IMT bus.</p>

Procedure 6: Initializing MASP to Run on Target-Release GPLs

<p>9 <input type="checkbox"/></p>	<p>Download target-release flash to the standby MASP.</p>	<p>INIT-FLASH:LOC=XXXX:CODE=TRIAL or INIT-FLASH:LOC=XXXX:CODE=TRIAL:INITCLK=YES (Procedure 3, step 2 part number is equal to 870-0774-15 or 870-0774-18) (Where <i>XXXX</i> is the location used in the previous command)</p>
<p>10 <input type="checkbox"/></p>	<p>Response to flash initialization is shown.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx started. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx completed. ;</pre> <p>Note: Wait for card to boot and return to the IMT bus.</p>
<p>11 <input type="checkbox"/></p>	<p>Retrieve the GPLs running on the card location.</p>	<p>REPT-STAT-GPL:LOC=XXXX (Where <i>XXXX</i> is the location used in the previous command)</p>
<p>12 <input type="checkbox"/></p>	<p>Response to the card status command is displayed. Repeat previous step if valid version of BPDCM, BPDCM2, or BLMCAP not displayed.</p> <p>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.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y GPL CARD RUNNING APPROVED TRIAL EOAM 1113 ----- ----- ----- FFFFF YYY-YYY-YYY ALM XXX-XXX-XXX YYY-YYY-YYY</pre> <p>Command Completed.</p>
<p>13a <input type="checkbox"/></p>	<p>If source release is 40.1, 41.0 or higher, run the target-release GPL on the standby MASP</p>	<p>ALW-CARD:LOC=XXXX (target release on RMD) or ALW-CARD:LOC=XXXX:CODE=INACTIVEPRTN (target release on the inactive partition) (Where <i>XXXX</i> is the location of the standby MASP used in the previous command)</p>
<p>13b <input type="checkbox"/></p>	<p>If source release is 40.4, 40.0 or lower, issue the allow-card command on standby MASP</p>	<p>ALW-CARD:LOC=XXXX (Where <i>XXXX</i> is the location of the standby MASP used in the previous command)</p>
<p>14a <input type="checkbox"/></p>	<p>Response to allow-card command is shown.</p> <p>Continue to Step 17.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Card has been allowed. ;</pre>
<p>14b <input type="checkbox"/></p>	<p>Response to allow-card command is shown.</p> <p>If target release is on the inactive partition, immediately continue on to the next step. Otherwise, continue to Step 17.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Card has been allowed. ;</pre>
<p>15 <input type="checkbox"/></p>	<p>If source release is 40.4, 40.0 or prior, initialize the standby MASP to run target-release GPL.</p> <p>If target release is on RMD, continue to Step 17.</p>	<p>INIT-CARD:LOC=XXXX:CODE=INACTIVEPRTN (target release on the inactive partition) (Where <i>XXXX</i> is the location of the standby MASP used in the previous command)</p>

Procedure 6: Initializing MASP to Run on Target-Release GPLs

<p><input type="checkbox"/> 16</p>	<p>Response to initialize card command is shown.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Init Card command issued to card XXXX ;</pre>
<p><input type="checkbox"/> 17</p>	<p>Retrieve status of the MASPs</p>	<p>REPT-STAT-GPL:GPL=EOAM (for a legacy system.) Or REPT-STAT-GPL:GPL=OAMHC (for a E5-OAM system.)</p>
<p><input type="checkbox"/> 18</p>	<p>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.</p> <p><input type="checkbox"/> Record the system date, time and time zone in the response header:</p> <p>Time: _____</p> <p>Date: _____</p> <p>Timezone: _____</p> <p><input type="checkbox"/> Record the local time:</p> <p>Pre-upgrade Local Time: _____</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 ALM XXX-XXX-XXX Command Completed. ;</pre>
<p><input type="checkbox"/> 19</p>	<p>Perform an OAM role change by booting the active MASP.</p>	<p>INIT-CARD:LOC=XXXX (Where XXXX is the location of the active MASP recorded in Procedure 3, Step 2)</p>
<p><input type="checkbox"/> 20</p>	<p>Response to card initialization is shown.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y init-card:loc=xxxx Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Init Card command issued to card xxxx ;</pre>
<p><input type="checkbox"/> 21</p>	<p>Issue the command to log back in to the system.</p>	<p>LOGIN:UID=XXXXXX (Where XXXXXX is a valid login ID)</p>

Procedure 6: Initializing MASPs to Run on Target-Release GPLs

<p><input type="checkbox"/> 22</p>	<p>Response to login command is displayed.</p> <p>Ignore any login failure message.</p> <p>Verify the Upgrade Phase in Banner¹¹.</p> <p>If the system time, date or time zone has changed¹², record the current values:</p> <p>Time: _____</p> <p>Date: _____</p> <p>Timezone: _____</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 ??-??-?? @ ??:??:??</pre>
<p><input type="checkbox"/> 23</p>	<p>Echo command input to capture terminal.</p> <p>If the capture terminal is the user terminal go to step 25.</p>	<p>ACT-ECHO:TRM=<i>P</i> (Where <i>P</i> is the terminal port number specified in Procedure 1, Step 3)</p>
<p><input type="checkbox"/> 24</p>	<p>Response to print capture command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Upg Phase x Scroll Area Output will be echoed to Port P. ;</pre>
<p><input type="checkbox"/> 25</p>	<p>Issue the card status to verify the location of the active MASP slot</p>	<p>REPT-STAT-CARD:APPL=OAM</p>
<p><input type="checkbox"/> 26</p>	<p>Response to the card status command is displayed.</p> <p>Circle the status of both MCAPs:</p> <p>1113: Active or Standby</p> <p>1115: Active or Standby</p> <p>For this sample output, 1113 is active and 1115 is standby.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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. ;</pre>
<p><input type="checkbox"/> 27</p>	<p>Inhibit the standby MASP</p>	<p>INH-CARD:LOC=XXXX (Where <i>XXXX</i> is the location of the standby MCAP used in the previous command)</p>

¹¹ Phase number is not displayed at this point for incremental upgrades. See section 0 for a definition of incremental upgrade and section 1.4 for a definition of database versioning. Database versioning between releases is determined in Procedure 7, step 2.

¹² System date, time and time zone may change due to PR 157613, time needs to be reset at the conclusion of the upgrade.

Procedure 6: Initializing MASP's to Run on Target-Release GPLs

<p>28 <input type="checkbox"/></p>	<p>Response to the inhibit command is displayed¹³</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Card is inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x ** 5045.0514 ** CARD XXXX EOAM Standby MASP is inhibited ; Note: wait for the card to boot and return to the IMT bus.</pre>
<p>29 <input type="checkbox"/></p>	<p>Download target release flash to the standby MASP.</p>	<p>INIT-FLASH:LOC=XXXX:CODE=TRIAL or INIT-FLASH:LOC=XXXX:CODE=TRIAL:INITCLK=YES (Procedure 3, step 2 part number is equal to 870-0774-15 or 870-0774-18) (Where XXXX is the location of the standby MASP used in the previous command)</p>
<p>30 <input type="checkbox"/></p>	<p>Response to init-flash command is shown.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx started. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx completed. ;</pre>
<p>31 <input type="checkbox"/></p>	<p>Retrieve the GPLs running on the card location.</p>	<p>REPT-STAT-GPL:LOC=XXXX (Where XXXX is the location of the standby MASP slot used in the previous command)</p>
<p>32 <input type="checkbox"/></p>	<p>Response to the card status command is displayed. Repeat step 29 if valid version of BPDCM, BPDCM2, or BLMCAP not displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y GPL CARD RUNNING APPROVED TRIAL OAMHC 1113 ----- ----- ----- FFFFFF YYY-YYY-YYY ALM XXX-XXX-XXX XXX-XXX-XXX ; Command Completed.</pre>
<p>33 <input type="checkbox"/></p>	<p>Run the target release GPL on the standby MASP</p>	<p>ALW-CARD:LOC=XXXX (target release on the RMD) or 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)</p>
<p>34 <input type="checkbox"/></p>	<p>Response to allow card command is shown.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Card has been allowed. ;</pre>
<p>35 <input type="checkbox"/></p>	<p>Issue the command to display the status of the MASP's GPL</p>	<p>REPT-STAT-GPL:GPL=EOAM (for a legacy system.) Or REPT-STAT-GPL:GPL=OAMHC (for a E5-OAM system.)</p>
<p>36 <input type="checkbox"/> <input type="checkbox"/></p>	<p>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</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL EOAM 1113 XXX-XXX-XXX ALM YYY-YYY-YYY XXX-XXX-XXX * EOAM 1115 XXX-XXX-XXX ALM YYY-YYY-YYY XXX-XXX-XXX * ; Command Completed.</pre>

¹³ Software trouble for Module UPLO_MGR.C may be generated in response to this command. This output is expected and has no functional impact; continue with the procedure.

Procedure 6: Initializing MASPs to Run on Target-Release GPLs

<p>37 <input type="checkbox"/></p>	<p>If GPLs are not correct, do the following until successful:</p>	<p>If target release is on the RMD: 1. Eject RMD, re-insert RMD, and repeat Steps 7 - 36. 2. Contact Tekelec Customer Care Center.</p> <p>If the target release is contained on the inactive partition: 1. Repeat Step 7 - 36. 2. Contact Tekelec Customer Care Center.</p>
<p>38 <input type="checkbox"/></p>	<p>Issue the command to display the version of the Flash GPL running on card 1113.</p>	<p>REPT-STAT-CARD:LOC=1113:MODE=FULL</p>
<p>39 <input type="checkbox"/></p> <p>Record version of BPDCM, BPDCM2, or BLMCAP running on card 1113.</p> <p>GPL Version: _____</p>	<p>Response from the retrieve command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 1113 XXX-XXX-XXX GSM EOAM IS-NR Standby ----- ALARM STATUS = No Alarms. FFFFFF GPL version = YY-YY-YY IMT BUS A = Conn IMT BUS B = Conn CLOCK A = Active CLOCK B = Idle CLOCK I = Idle MBD BIP STATUS = Valid MOTHER BOARD ID = GSM2 DBD STATUS = Valid DBD TYPE = MEM DBD MEMORY SIZE = 1024M HW VERIFICATION CODE = ---- TROUBLE TEXT VER. = ---- Command Completed.</pre>
<p>40 <input type="checkbox"/></p>	<p>Repeat steps 38 – 39, for location 1115.</p>	<p>;</p>

5.2 OAM Conversion

Procedure 7: Verifying all Databases

<p>S T E P #</p>	<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.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>
<p>1 <input type="checkbox"/></p>	<p>Issue the command to display database status during upgrades.</p> <p style="text-align: center;">ACT-UPGRADE:ACTION=DBSTATUS</p>
<p>2 <input type="checkbox"/></p> <p>Response to the command is displayed.</p> <p>Look in the columns labeled 'C', 'T', and 'LEVEL' output by this command.</p> <p><input type="checkbox"/> Verify entries in column 'C' show 'Y', which indicates coherence or '-'. <input type="checkbox"/> Verify column 'T' shows 'N' for both CRNT databases, which indicates that those databases are not in transition <input type="checkbox"/> If legacy system and target release is on RMD, verify the MDAL database level is "1." <input type="checkbox"/> Or if target release is on the inactive partition, the database level is "1". <input type="checkbox"/> Verify all entries in the database 'Level' column marked as 'XXX' are the same. . <input type="checkbox"/> Verify that the version numbers displayed are correct;¹⁴</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Upg Phase 0 DATABASE STATUS: >> OK << TDM 1114 (ACTV) C LEVEL TIME LAST BACKUP TDM 1116 (STDBY) 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 MDAL 1117 ----- RD BKUP Y 1 - - ----- CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS ----- 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 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 MDAL 1117 Y - 1 - - ZZZ-ZZZ-ZZZ NORMAL ----- INACTIVE PARTITION GROUP CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS ----- TDM-CRNT 1114 Y - YYY YY-MM-DD hh:mm:ss YYY-YYY-YYY NORMAL TDM-BKUP 1114 Y - YYY YY-MM-DD hh:mm:ss YYY-YYY-YYY NORMAL TDM-CRNT 1116 Y - YYY YY-MM-DD hh:mm:ss YYY-YYY-YYY NORMAL TDM-BKUP 1116 Y - YYY YY-MM-DD hh:mm:ss YYY-YYY-YYY NORMAL ----- ; DATABASE STATUS: >> OK << TDM 1114 (STDBY) C LEVEL TIME LAST BACKUP TDM 1116 (ACTV) 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 ----- 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 - - - - - - - - - TDM-BKUP 1116 - - - - - - - - - ----- ; </pre>

¹⁴ See section 1.4 to verify the database versions. If the database versions are the same for the TDMs as well as the MDAL, the phase indicator is not displayed until after Procedure 8, step 1.

Procedure 8: STP Conversion

S T E P #	<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.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>If the upgrade execute terminates before successfully completing, see recommendation #7 in 1.6</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>		
1	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%; padding: 5px;"> <p>Issue the command to begin database conversion.</p> <p>Note that the duration of this command is dependent on the size of the database and the size of the network configuration.</p> <p>Table 19. Act Upgrade Command Actions lists the actions completed by the command.</p> <p>Appendix D contains messages illustrative of the output of upgrade during this series of operations.</p> </td> <td style="padding: 5px;"> <p>ACT-UPGRADE: ACTION=CONVERTSTP: THRES=75 (target release on RMD)</p> <p>OR</p> <p>ACT-UPGRADE: ACTION=CONVERTSTP: SRC=FIXED: THRES=75 (target release is contained on the inactive partition)</p> <p>(If another thres value is to be used see recommendation #5 in section 1.6)</p> </td> </tr> </table>	<p>Issue the command to begin database conversion.</p> <p>Note that the duration of this command is dependent on the size of the database and the size of the network configuration.</p> <p>Table 19. Act Upgrade Command Actions lists the actions completed by the command.</p> <p>Appendix D contains messages illustrative of the output of upgrade during this series of operations.</p>	<p>ACT-UPGRADE: ACTION=CONVERTSTP: THRES=75 (target release on RMD)</p> <p>OR</p> <p>ACT-UPGRADE: ACTION=CONVERTSTP: SRC=FIXED: THRES=75 (target release is contained on the inactive partition)</p> <p>(If another thres value is to be used see recommendation #5 in section 1.6)</p>
<p>Issue the command to begin database conversion.</p> <p>Note that the duration of this command is dependent on the size of the database and the size of the network configuration.</p> <p>Table 19. Act Upgrade Command Actions lists the actions completed by the command.</p> <p>Appendix D contains messages illustrative of the output of upgrade during this series of operations.</p>	<p>ACT-UPGRADE: ACTION=CONVERTSTP: THRES=75 (target release on RMD)</p> <p>OR</p> <p>ACT-UPGRADE: ACTION=CONVERTSTP: SRC=FIXED: THRES=75 (target release is contained on the inactive partition)</p> <p>(If another thres value is to be used see recommendation #5 in section 1.6)</p>		

Table 19. 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. ¹⁵
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.

¹⁵ Proceed to step 3 to log back into the system and restart output capture.

Procedure 8: STP Conversion

<p>2</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Command is displayed.</p> <p>Note the banners transitions from Phase 0 to Phase 3¹⁶.</p> <p>For incremental upgrade, see footnote ¹⁷</p> <p>Completion notice of successful upgrade. If upgrade does not complete successfully, see recommendation # 7 in section 1.6</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST Re1 XX.x.x-XX.x.x Upg Phase 0 act-upgrade:action=convertstp:thres=XX Command entered at terminal #10. ;</pre> <p>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:</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST Re1 XX.x.x-XX.x.x Upg Phase 0 Using inactive standby partitions for OAM conversion (disk=ddd) ;</pre> <p>(Where <i>ddd</i> defines conversion workspace)</p> <p>NOTICE: See Appendix D (D.1) for samples of output messages.</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase 3 Command Complete : Upgrade action completed successfully ;</pre> <p>NOTE: If upgrade terminates abnormally in phase 3 due to cards being in IS-ANR DDL Hunt, contact Tekelec Customer Care Center for assistance in executing Appendix D (D.3).</p>
<p>3</p> <p><input type="checkbox"/></p>	<p>After item G in step 1, issue the command to log back in to the system.</p>	<p>LOGIN:UID=XXXXXX</p> <p>(Where <i>XXXXXX</i> is a valid login ID)</p>
<p>4</p> <p><input type="checkbox"/></p>	<p>Response to login command is displayed.</p> <p>Ignore any login failure message.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x User logged in on terminal 10. ;</pre> <p>? Login failures since last successful LOGIN Last successful LOGIN was on port ? on ??-??-?? @ ??:?:??</p>
<p>5</p> <p><input type="checkbox"/></p>	<p>Issue the command to reactivate printer capture of upgrade process.</p>	<p>ACT-ECHO:TRM=P</p> <p>(Where <i>P</i> is the terminal port number specified in Procedure 1, Step 3)</p>
<p>6</p> <p><input type="checkbox"/></p>	<p>Response to print capture command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x Scroll Area Output will be echoed to Port P. ;</pre>

¹⁶ For upgrades from source release 43.0 and earlier to target release 44.0 and later, after the MUX cards have been upgraded during phase 3, trouble MFC_MSG class 01BB may be generated by the network cards. These software troubles have no impact on the upgrade execution and are not service affecting.

¹⁷ 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

<p><input type="checkbox"/> 7</p> <p>Issue the command to display database status during upgrades.</p>	<p>ACT-UPGRADE:ACTION=DBSTATUS</p>
<p><input type="checkbox"/> 8A</p> <p>Response from the command is displayed.</p> <p>Look in the columns labeled 'C', 'LEVEL' and 'VERSION STATUS' output by this command.</p> <p><input type="checkbox"/> Verify entries in column 'C' show 'Y' which indicates coherence or '-'.</p> <p><input type="checkbox"/> Verify both 'FD CRNT' Levels are equal.</p> <p><input type="checkbox"/> Verify 'VERSION STATUS' shows NORMAL in the active partition group. NOTE: this will not occur until step 2 above is completed.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 - - - - - Y XXX - - - - - FD CRNT Y XXX - - - - - Y XXX - - - - - MDAL 1117 RD BKUP Y 1 - - - - - ----- CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS ----- 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 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 MDAL 1117 Y - 1 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 </pre>
<p><input type="checkbox"/> 8B</p> <p>Response from the command is displayed.</p> <p>Look in the columns labeled 'C', 'LEVEL' and 'VERSION STATUS' output by this command.</p> <p><input type="checkbox"/> Verify entries in column 'C' show 'Y' which indicates coherence or '-'.</p> <p><input type="checkbox"/> Verify both 'FD CRNT' Levels are equal.</p> <p><input type="checkbox"/> Verify 'VERSION STATUS' shows NORMAL in the active partition group. NOTE: this will not occur until step 2 above is completed.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 MCAPI 1113 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 </pre>
<p><input type="checkbox"/> 9</p> <p>Issue the report card status command to verify network cards.</p>	<p>REPT-STAT-CARD</p>

Procedure 8: STP Conversion

<p><input type="checkbox"/> 10</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the card status command is displayed.</p> <p>Verify that the cards are IS-NR, OOS-MT Isolated or OOS-MT-DSBLD.</p> <p>Verify that the GPL versions that are displayed in the "VERSION" column are correct; see Section 1.3.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x CARD VERSION TYPE APPL PST SST AST 1101 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1102 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1103 XXX-XXX-XXX TSM GLS IS-NR Active ----- 1104 XXX-XXX-XXX TSM GLS IS-NR Active ----- 1105 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ----- 1111 XXX-XXX-XXX ACMENET STPLAN OOS-MT Isolated ----- 1113 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- 1114 ----- TDM ----- IS-NR Active ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Standby ----- 1116 ----- TDM ----- IS-NR Active ----- 1117 ----- MDAL ----- IS-NR Active ----- 1201 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1202 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1203 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1204 XXX-XXX-XXX LIMDS0 SS7ANSI 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 CCS7ITU IS-NR Active ----- 1215 xxx-xxx-xxx DSM VS CCP IS-NR Active ----- 1217 xxx-xxx-xxx DSM VS CCP IS-NR Active ----- 3101 xxx-xxx-xxx LIMATM ATMANSI IS-NR Active ----- 3102 xxx-xxx-xxx LIMATM ATMANSI IS-NR Active ----- Command Completed.</pre>
<p><input type="checkbox"/> 11</p>	<p>Issue the command to display GPL status.</p>	<p>RTRV-GPL</p>
<p><input type="checkbox"/> 12A</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to GPL status command is displayed.</p> <p>Verify that the GPL versions that are displayed in the "RELEASE" column are correct; see Section 1.3.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON APPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL EOAM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EOAM 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX GLS 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX GLS 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX CDU 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX CDU 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ATMANSI 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX ATMANSI 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHCAP 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHCAP 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPDCM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPDCM 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EMDC 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EMDC 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EBDABLM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EBDABLM 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EBDADCM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EBDADCM 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX VXWSLAN 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX VXWSLAN 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IPLIM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IPLIM 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IPLIMI 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IPLIMI 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7IPGW 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7IPGW 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX VS CCP 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX VS CCP 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX VXUTIL 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX VXUTIL 1116 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX</pre>

Procedure 8: STP Conversion

12B	Response from the retrieve command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y GPL Auditing ON</pre>
<input type="checkbox"/>		<pre> GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL EOAM 1114 XXX-XXX-XXX XXX-XXX-XXX ----- EOAM 1116 XXX-XXX-XXX XXX-XXX-XXX ----- EOAM 1113 ----- 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 ----- </pre>
<input type="checkbox"/>	Verify that the GPL versions that are displayed in the "RELEASE" column are correct; see Section 1.3	;

5.3 Completion of Session 1

Procedure 9: Force Download of Fixed Disks

S T E P #	<p>This procedure reseats the TDMs. Only execute this procedure if the MASP's in slots 1113 and 1115 were flashed in Procedure 8, step 2.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
1 <input type="checkbox"/>	<p>For a legacy system, if the target release is on the RMD, eject the RMD; otherwise go to the next step.</p> <p>Otherwise, for an E5-OAM system, go to next procedure</p>	
2 <input type="checkbox"/>	<p>Compare TDM part numbers recorded in procedure 3, steps 2 & 3. If recorded part numbers are equal to 870-0774-15 or 870-0774-18, go to the next procedure.</p> <p>Otherwise continue to the next step.</p>	<p>If the system is running TDM-GTI (p/n 870-0774-15 or 870-0774-18) this procedure is not applicable.</p>
3 <input type="checkbox"/>	<p>Issue the command to display version of BPDCM GPL running on CARD 1113.</p>	<p>REPT-STAT-CARD:LOC=1113:MODE=FULL</p>
4 <input type="checkbox"/> <input type="checkbox"/>	<p>Response from the retrieve command is displayed.</p> <p>If slot 1113 is alarmed then stop upgrade and contact Tekelec Customer Care Center.</p> <p>Compare version of BPDCM / BPDCM2 running on 1113 with version recorded in Procedure 6 Step 37, if version numbers match then go to the next procedure.</p> <p>Otherwise continue to the next step.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Upg Phase x rept-stat-card:loc=1113:mode=full Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 1113 XXX-XXX-XXX GPSP EOAM IS-NR Standby ----- ALARM STATUS = No Alarms. FFFF 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 = GPSP2 DBD STATUS = Valid DBD TYPE = MEM DBD MEMORY SIZE = 1024M HW VERIFICATION CODE = ---- TROUBLE TEXT VER. = ---- ; Command Completed.</pre>
5 <input type="checkbox"/>	<p>Issue command to inhibit standby MASP</p>	<p>INH-CARD:LOC=XXXX</p> <p>(Where XXXX is the location of the Standby MASP)</p>
6 <input type="checkbox"/>	<p>Response to inhibit card command is displayed</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x ** 5045.0514 ** CARD XXXX EOAM Standby MASP is inhibited ;</pre>

Procedure 9: Force Download of Fixed Disks

<p>7 <input type="checkbox"/></p>	<p>Unseat and re-insert the standby MASP.</p>	<p><input type="checkbox"/> Unseat the standby MASP <input type="checkbox"/> Unseat the card in the standby TDM slot. <input type="checkbox"/> Re-seat the card in the TDM slot. <input type="checkbox"/> Re-seat the standby MASP. Note: UAMs are generated during this step. An audible alarm is generated.</p>
<p>8 <input type="checkbox"/></p>	<p>Issue the command to allow the standby OAM.</p>	<p>ALW-CARD:LOC=XXXX (Where XXXX is the location of the Standby MASP)</p>
<p>9 <input type="checkbox"/></p>	<p>Response to allow card command is displayed. If this is the second time performing this step, go to Procedure 10, Step 7. Otherwise continue.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x Command Completed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x 5046.0515 CARD XXXX EOAM Standby MASP is allowed ; Note: wait for the standby MASP to come up in standby mode and system returns to duplex mode.</pre>
<p>10 <input type="checkbox"/></p>	<p>Issue the command to initialize the active OAM.</p>	<p>INIT-CARD:LOC=YYYY (Where YYYY is the location of the ACTIVE MASP)</p>
<p>11 <input type="checkbox"/></p>	<p>Response to initialize card command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase x ** 5001.0008 ** CARD YYYY EOAM Active MASP has become isolated ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 5003.0009 CARD XXXX EOAM MASP became active</pre>
<p>12 <input type="checkbox"/></p>	<p>Issue the command to log back in to the system.</p>	<p>LOGIN:UID=XXXXXX (Where XXXXXX is a valid login ID)</p>
<p>13 <input type="checkbox"/></p>	<p>Response to login command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y User logged in on terminal 10. ;</pre>
<p>14 <input type="checkbox"/></p>	<p>Issue the command to reactivate printer capture.</p>	<p>ACT-ECHO:TRM=P (Where P is the terminal port number specified in Procedure 1, Step 4)</p>
<p>15 <input type="checkbox"/></p>	<p>Response to printer capture command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y act-echo:trm=P Command entered at terminal #10. ;</pre>
<p>16 <input type="checkbox"/></p>	<p>Repeat steps 5 through 9. Otherwise, if this is the second MASP, go to Procedure 10, Step 7.</p>	<p>Perform Step 5 through Step 9 on TDM of the other MASP.</p>

Procedure 10: Completing Upgrade/Return to Full-Function Mode

S T E P #	<p>This procedure completes the upgrade and returns the system to full-function mode. Verification of the GPL distribution is also performed. If Procedure 9 has been executed, go to step 7.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR UPGRADE ASSISTANCE.</p>	
1 <input type="checkbox"/>	Issue the command to initialize both MASPs.	INIT-CARD:APPL=OAM
2 <input type="checkbox"/>	Response to the init command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upgrade Phase x init-card:appl=oam Command entered at terminal #10. ;
<input type="checkbox"/>	Verify the banner display full-function mode after the MASPs boot.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 0002.0009 CARD 1113 EOAM MASP became active ;
3 <input type="checkbox"/>	Issue the command to log back in to the system.	LOGIN:UID=XXXXXX (Where XXXXXX is a valid login ID)
4 <input type="checkbox"/>	Response to login command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y User logged in on terminal 10. ;
5 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to printer capture command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y act-echo:trm=x Command entered at terminal #10. ;
7 <input type="checkbox"/>	Issue the command to display card status.	REPT-STAT-GPL:DISPLAY=ALL
8 <input type="checkbox"/>	Response to GPL status command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON
<input type="checkbox"/>	Verify that no "ALM" indicator is displayed.	<pre> GPL CARD RUNNING APPROVED TRIAL EOAM 1113 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX * FFFFFF XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EOAM 1115 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX * FFFFFF XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7ANSI 1201 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SS7ANSI 1202 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SCCP 1111 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX GLS 1213 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX GLS 1214 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX CCS7ITU 1301 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX CCS7ITU 1302 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX IMT XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX VSCCP 1107 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPDCM XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX SS7ML 1205 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPMPML XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX 1109 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX 1110 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX 1209 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX 1210 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR 1309 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX HIPR 1310 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed. </pre>
	Record the current local time and calculate the duration of the upgrade (subtract the pre-upgrade local time recorded in procedure 6, step 16 from the present local time:	
	Post-upgrade Local Time: _____	
	Upgrade duration: _____	

Procedure 10: Completing Upgrade/Return to Full-Function Mode

<p>9</p> <input type="checkbox"/>	<p>Reset the system time zone if necessary.</p> <p>If either the system time or time zone recorded in procedure 6, step 20 is different from the values recorded in procedure 6, step 16 perform this step.</p>	<p>set-time:time=HHMM:tz=zzzz</p> <p>(where HHMM is hour and minute recorded in procedure 6, step 16 plus the upgrade duration time recorded in the previous step) (where zzzz is the time zone recorded in procedure 6, step 16)</p>
<p>10</p> <input type="checkbox"/>	<p>Response to set-time command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y set-time:time=HHMM:tz=zzzz Command entered at terminal #10. ;</pre>
<p>11</p> <input type="checkbox"/>	<p>Reset the system date if necessary.</p> <p>If system date is not the same as that recorded in Procedure 6 step 16 change it now.</p>	<p>set-date:date=yymmdd</p> <p>(where yymmdd is the value recorded in Procedure 6 step 16, account for date change if execution spans a time rollover)</p>
<p>12</p> <input type="checkbox"/>	<p>Response to set-date command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y set-date:date=yymmdd Command entered at terminal #10. ;</pre>
<p>13</p> <input type="checkbox"/>	<p>Establish system status</p>	<p>See recommendation # 7 in Section 1.6</p>

Procedure 11: Backing up Converted Database

<p>S T E P #</p>	<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.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
<p>1</p> <p><input type="checkbox"/></p>	<p>If the target release was on the RMD, insert the target-release RMD. Then go to step 10</p> <p>If a source-release RMD is available and the target release was on the inactive partition, insert the RMD¹⁸, and continue</p> <p>Otherwise go to step 21.</p>	<p>Once inserted, allow time for the RMD to be detected by the system.</p> <p>For E5-OAM systems, RMD is inserted in the latched USB port on the active E5-MASP.</p>
<p>2</p> <p><input type="checkbox"/></p>	<p>Issue the command to retrieve measurement status.</p>	<p>rtrv-meas-sched</p>
<p>3</p> <p><input type="checkbox"/></p>	<p>Response to retrieve command is displayed.</p> <p>Record if collection is on or off: _____</p> <p>Record if system configuration requires measurements to be on or off: _____</p> <p>If COLLECT=ON, continue to next step. Otherwise, go to Step 6.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y COLLECT = off SYSTOT-STP = (off) SYSTOT-TT = (off) SYSTOT-STPLAN = (off) COMP-LNKSET = (off) COMP-LINK = (off) MTCO-STP = (on) MTCO-LINK = (on) MTCO-STPLAN = (on) MTCO-LNKSET = (on) ;</pre>
<p>4</p> <p><input type="checkbox"/></p>	<p>Issue the command to turn off measurement collection.</p>	<p>chg-meas:collect=off</p>
<p>5</p> <p><input type="checkbox"/></p>	<p>Response to the change command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss zzzz PPP XX.x.x-YY.y.y chg-meas:collect=off Command entered at terminal #XX. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CHG-MEAS: MASP A - COMPLTD ;</pre>
<p>6</p> <p><input type="checkbox"/></p>	<p>Issue the command to format the RMD.</p>	<p>FORMAT-DISK:TYPE=SYSTEM:FORCE=YES</p>

¹⁸ DO NOT use the source release RMD created in Procedure 2.

Procedure 11: Backing up Converted Database

<p>7 <input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to format command is displayed.</p> <p>If the format fails, first repeat the previous step, and then contact Tekelec Customer Care Center.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FORMAT-DISK:TYPE=SYSTEM:FORCE=YES Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Format-disk of system removable cartridge started. Extended processing required, please wait. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Format-disk of system removable cartridge completed. ;</pre>
<p>8 <input type="checkbox"/></p>	<p>Issue the command to copy the GPLs to the RMD.</p>	<p>COPY-GPL</p>
<p>9 <input type="checkbox"/></p>	<p>Response to copy command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y COPY-GPL Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y COPY-GPL: MASP A - COPY STARTS ON ACTIVE MASP ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y COPY-GPL: MASP A - COPY COMPLETED ON ACTIVE MASP ;</pre>
<p>10 <input type="checkbox"/></p>	<p>Issue the command to report database status.</p>	<p>REPT-STAT-DB</p>
<p>11A <input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to database status command is displayed.</p> <p>Check entries in 'C' should be coherent, which is indicated by a 'Y'.</p> <p>If all entries in column 'LEVEL' are the same value, go to step 21.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 - - - - - Y XXXX - - - - - FD CRNT Y XXXX - - - - - Y XXXX - - - - - MDAL 1117 RD BKUP Y 1 - - - - -</pre>
<p>11B <input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to database status command is displayed.</p> <p>Check entries in 'C' should be coherent, which is indicated by a 'Y'.</p> <p>If all FD BKUP & FD CRNT entries in column 'LEVEL' are the same, go to step 16.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 YY-MM-DD hh:mm:ss TTTT Y XXXX YY-MM-DD hh:mm:ss TTTT MCAP 1113 MCAP 1115 - - - - - - - - - - RD BKUP - - - - - - - N 1 - - - - - USB BKP - - - - - - - - - - - - - -</pre>
<p>12 <input type="checkbox"/></p>	<p>Issue the database command to backup the fixed disks.</p>	<p>CHG-DB:ACTION=BACKUP</p>
<p>13 <input type="checkbox"/></p>	<p>Response and progress of back up command are displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 5028.1114 CARD 1115 Database BACKUP started Report Date:YY-MM-DD Time:hh:mm:ss</pre>

Procedure 11: Backing up Converted Database

		<pre> ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BACKUP (FIXED): MASP A - Backup starts on active MASP. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BACKUP (FIXED): MASP A - Backup starts on standby MASP. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 5031.1116 CARD 1115 Database action ended - OK Report Date:YY-MM-DD Time:hh:mm:ss ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete ; </pre>
<p>14</p> <p><input type="checkbox"/></p>	<p>Issue the command to report database status.</p>	<p>rept-stat-db</p>
<p>15</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to database status command is displayed.</p> <p>Check: entries in 'C' should be coherent, which is indicated by a 'Y'.</p> <p>Verify both 'FD CRNT' and 'FD BKUP' Levels are equal.</p>	<pre> Legacy: tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (ACTV) C LEVEL TIME LAST BACKUP ----- FD BKUP Y XXX YY-MM-DD hh:mm:ss TTTT FD CRNT Y XXX YY-MM-DD hh:mm:ss TTTT MDAL 1117 ----- RD BKUP Y 1 - - E5OAM: tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (STDBY) C LEVEL TIME LAST BACKUP ----- FD BKUP Y XXX YY-MM-DD hh:mm:ss TTTT FD CRNT Y XXX YY-MM-DD hh:mm:ss TTTT MCAP 1113 ----- RD BKUP - - - - USB BKP - - - - TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP ----- FD BKUP Y XXX - - FD CRNT Y XXX - - MCAP 1115 ----- RD BKUP Y 1 - - </pre>
<p>16</p> <p><input type="checkbox"/></p>	<p>Issue the database command to back up to the target-release RMD.</p>	<p>chg-db:action=backup:dest=remove</p>
<p>17</p> <p><input type="checkbox"/></p>	<p>Response to backup command is displayed.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 5035.1114 CARD 1115 Database BACKUP started Report Date:YY-MM-DD Time:hh:mm:ss ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BACKUP (REMOVABLE): MASP B - Backup starts on active MASP. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BACKUP (REMOVABLE): MASP B - Backup to removable cartridge complete. ; </pre>
<p>18</p> <p><input type="checkbox"/></p>	<p>Issue the command to report database status.</p>	<p>rept-stat-db</p>
<p>19A</p> <p><input type="checkbox"/></p>	<p>Response to database status command is displayed.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-db Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y </pre>

5.4 Upgrade Session 2

Procedure 12. Verifying Upgrade Session 2 Requirements

S T E P #	<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.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND <u>ASK FOR UPGRADE ASSISTANCE.</u></p>	
1 <input type="checkbox"/>	Complete pre-upgrade session 2 tasks	All tasks in Table 20 must be completed before continuing.

Table 20. 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 13: Upgrading Removable medias

S T E P #	<p>This procedure describes how to update source-release removable media to the target release. See recommendation #2 in section 1.6.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
1 <input type="checkbox"/>	<p>Echo command input to capture terminal.</p> <p>See recommendation #1 & #6 in section 1.6</p>	<p>act-echo:trm=P (Where the value for <i>P</i> is one of the printer/KSR terminal port numbers recorded in Procedure 1, Step 3)</p>
2 <input type="checkbox"/>	<p>Response to activate command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y act-echo:trm=P Command entered at terminal #XX. ;</pre>
3 <input type="checkbox"/>	<p>If capture terminal's output groups are not all set to YES, issue the change terminal command.</p>	<p>chg-trm:trm=P:all=yes (<i>P</i> is the terminal port that is specified in step 1)</p>
4 <input type="checkbox"/>	<p>Response to change terminal command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y chg-trm:trm=P:all=yes Command entered at terminal #XX. ;</pre>
5 <input type="checkbox"/>	<p>If the measurements platform is enabled go to step 9. Otherwise, issue the command to retrieve measurement status.</p>	<p>rtrv-meas-sched</p>
6 <input type="checkbox"/>	<p>Response to retrieve command is displayed.</p> <p>Record if collection is on or off: _____</p> <p>Record if system configuration requires measurements to be on or off: _____</p> <p>If COLLECT=ON, continue to next step. Otherwise, go to Step 9.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y COLLECT = off SYSTOT-STP = (off) SYSTOT-TT = (off) SYSTOT-STPLAN = (off) COMP-LNKSET = (off) COMP-LINK = (off) MTCD-STP = (on) MTCD-LINK = (on) MTCD-STPLAN = (on) MTCD-LNKSET = (on) ;</pre>
7 <input type="checkbox"/>	<p>Issue the command to turn off measurement collection.</p>	<p>chg-meas:collect=off</p>
8 <input type="checkbox"/>	<p>Response to the change command is displayed.</p> <p>If no source cartridges need upgrading, go to next procedure.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss zzzz PPP XX.x.x-YY.y.y chg-meas:collect=off Command entered at terminal #XX. ;</pre> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CHG-MEAS: MASP A - COMPLTD ;</pre>

Procedure 13: Upgrading Removable medias

9 <input type="checkbox"/>	Issue measurement report command.	rept-meas:type=systot:enttype=stp
10 <input type="checkbox"/> <input type="checkbox"/>	Response to the command is displayed. If command fails, reattempt in five minutes until it completes, See Table 21.	E2278 Cmd Rej: 30-minute measurement collection in progress tekelecstp YY-MM-DD hh:mm:ss zzzz PPP XX.x.x-YY.y.y rept-meas:type=systot:enttype=stp Command entered at terminal #XX. ;
11 <input type="checkbox"/>	If LNP feature on, issue measurement report command..	rept-meas:type=mtcd:enttype=lnp
12 <input type="checkbox"/> <input type="checkbox"/>	Response to the command is displayed. If command fails, reattempt in five minutes until it completes, See Table 21.	E2277 Cmd Rej: Daily measurement collection in progress tekelecstp YY-MM-DD hh:mm:ss zzzz PPP XX.x.x-YY.y.y rept-meas:type=mtcd:enttype=lnp Command entered at terminal #XX. ;
13 <input type="checkbox"/>	Issue measurement report command.	rept-meas:type=mtcdth:enttype=stp
14 <input type="checkbox"/> <input type="checkbox"/>	Response to the command is displayed. If command fails, reattempt in five minutes until it completes, See Table 21.	E2276 Cmd Rej: Day-to-hour measurement collection in progress tekelecstp YY-MM-DD hh:mm:ss zzzz PPP XX.x.x-YY.y.y rept-meas:type=mtcdth:enttype=stp Command entered at terminal #XX. ;
15 <input type="checkbox"/>	Insert the source-release RMD to be upgraded into the drive slot.	Once inserted, allow time for the RMD to be detected by the system. For E5-OAM systems, RMD is inserted in the latched USB port on the active E5-MASP.
16 <input type="checkbox"/>	Issue the command to format the cartridge.	format-disk:type=system:force=yes
17 <input type="checkbox"/>	Response to format command is displayed. If the format should fail, first repeat Step 16, then contact Tekelec Customer Care Center.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y format-disk:type=system:force=yes Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Format-disk of system removable cartridge started. Extended processing required, please wait. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Format-disk of system removable cartridge completed. ;

Table 21. 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 13: Upgrading Removable medias

18 <input type="checkbox"/>	Issue the command to copy the GPLs to the target-release RMD.	copy-gpl
19 <input type="checkbox"/>	Response to copy command is displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y copy-gpl Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y COPY-GPL: MASP A - COPY STARTS ON ACTIVE MASP ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y COPY-GPL: MASP A - COPY COMPLETED ON ACTIVE MASP ; </pre>
20 <input type="checkbox"/>	Issue the command to backup the target-release database to the RMD.	chg-db:action=backup:dest=remove
21 <input type="checkbox"/>	Response to backup command is displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 5035.1114 CARD 1115 Database BACKUP started Report Date:YY-MM-DD Time:hh:mm:ss ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BACKUP (REMOVABLE): MASP B - Backup starts on active MASP. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BACKUP (REMOVABLE): MASP B - Backup to removable cartridge complete. ; </pre>
22 <input type="checkbox"/>	Eject the target-release RMD from the drive slot and store it in a safe place.	
23 <input type="checkbox"/>	If upgrading more RMDs, repeat step 15-22.	

Procedure 14: Backing Up Fixed Disk

S T E P #	<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.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
1 <input type="checkbox"/>	Issue the command to backup the database to the fixed disks.	chg-db:action=backup
2 <input type="checkbox"/>	Response and progress of the backup command are displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 5028.1114 CARD 1115 Database BACKUP started Report Date:YY-MM-DD Time:hh:mm:ss ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y BACKUP (FIXED): MASP A - Backup starts on active MASP. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y BACKUP (FIXED): MASP A - Backup on active MASP to fixed disk complete. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y BACKUP (FIXED): MASP A - Backup starts on standby MASP. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 5031.1116 CARD 1115 Database action ended - OK Report Date:YY-MM-DD Time:hh:mm:ss ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y BACKUP (FIXED): MASP A - Backup on standby MASP to fixed disk complete. ; </pre>

Procedure 15: Upgrading Spare Fixed Disks

S T E P #	<p>This procedure describes how to upgrade your spare fixed disks to the target release.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR UPGRADE ASSISTANCE.</p>	
1 <input type="checkbox"/>	Issue the command to display card status.	rept-stat-card:apl=oam
2 <input type="checkbox"/>	Response to the card status command is displayed.	<p><u>Legacy:</u></p> <pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1113 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Standby -----</pre> <p>Command Completed.</p>
<input type="checkbox"/>	<p>Determine MASP activity.</p> <p>Act MASP _____</p> <p>Act Fixed Disk _____</p> <p>Stby MASP _____</p> <p>Stby Fixed Disk _____</p>	<p><u>E5OAM:</u></p> <pre>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 -----</pre> <p>Command Completed.</p>
3 <input type="checkbox"/>	Insert target-release RMD into the drive slot on the MDAL (Legacy) or on the Active E5OAM.	Once inserted, allow time for the RMD to be detected by the system.
4 <input type="checkbox"/>	Issue the command to inhibit standby MASP.	<p>inh-card:loc=XXXX</p> <p>Where XXXX is the location for the Standby MASP in Step 2.</p>
5 <input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited.</pre> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</pre>
6A <input type="checkbox"/>	For a Legacy system, place spare TDM in system.	<p><input type="checkbox"/> Unseat the standby GPSM card determined in step 2.</p> <p><input type="checkbox"/> Remove the standby TDM card determined in step 2.</p> <p><input type="checkbox"/> Insert the spare TDM card.</p> <p><input type="checkbox"/> Re-seat the standby GPSM card.</p> <p>Note: UAMs are generated during this step. An audible alarm is generated. Wait for the standby GPSM/spare TDM to come up in standby mode and system returns to duplex mode.</p>

Procedure 15: Upgrading Spare Fixed Disks

<p>6B</p> <p><input type="checkbox"/></p>	<p>For an E5-OAM system, place spare E5-MASP in system.⁷</p>	<p><input type="checkbox"/> 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).</p> <p><input type="checkbox"/> Remove the standby E5-MASP card determined in step 2.</p> <p><input type="checkbox"/> Insert the spare E5-MASP card.</p> <p><input type="checkbox"/> Slide the MASP H/S switch (SW3) on the 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).</p> <p>Note: UAMs are generated during this step. An audible alarm is generated. Wait for the spare MASP to come up in standby mode and system returns to duplex mode.</p>
<p>7</p> <p><input type="checkbox"/></p>	<p>Retrieve the GPLs running on the card location.</p>	<p>REPT-STAT-GPL:LOC=XXXX</p> <p>Where XXXX is the location for the Standby MASP in Step 2.</p>
<p>8</p> <p><input type="checkbox"/></p>	<p>Response to the card status command is displayed. If ALM is displayed after the running version of the flash GPL, continue to next step. Otherwise, continue to step 11</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.X.X-YY.Y.Y GPL CARD RUNNING APPROVED TRIAL GGGGG XXXX ----- ----- ----- FFFFF YYY-YYY-YYY ALM XXX-XXX-XXX YYY-YYY-YYY</pre> <p>Command Completed.</p>
<p>9</p> <p><input type="checkbox"/></p>	<p>Issue the command to initialize the flash memory.</p>	<p>flash-card:code=appr:loc=XXXX</p> <p>Where XXXX is the location for the Standby MASP in Step 2.</p> <p>NOTE: this command causes the card to boot.</p>
<p>10</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the flash card command is displayed.</p> <p>Wait for command complete to indicate that the card is finished loading before proceeding.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y flash-card:code=appr:loc=XXXX Command entered at terminal #nn.</pre> <p>;</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed.</pre>
<p>11</p> <p><input type="checkbox"/></p>	<p>If system is E5-OAM, insert target-release USB into the drive slot on the standby E5OAM. Otherwise, go to next step.</p>	<p>Once inserted, allow time for the RMD to be detected by the system.</p>
<p>12</p> <p><input type="checkbox"/></p>	<p>Issue the command to allow card.</p>	<p>alw-card:loc=XXXX</p> <p>where XXXX is the location for the standby MASP.</p>
<p>13</p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Card has been allowed.</pre> <p>;</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed.</pre>
<p>14</p> <p><input type="checkbox"/></p>	<p>Issue the command to display MASP status.</p>	<p>rept-stat-card:appl=eoam</p>
<p>15</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the card status command is displayed.</p> <p>Verify the MASP cards are running the same version of the OAM application GPL.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.X.X-YY.Y.Y CARD VERSION TYPE GPL PST SST AST 1113 XXX-XXX-XXX TTTT GGGG IS-NR ACTIVE ---- 1115 XXX-XXX-XXX TTTT GGGG IS-NR STANDBY ----</pre> <p>Command Completed.</p>

Procedure 15: Upgrading Spare Fixed Disks

16 <input type="checkbox"/>	Issue the command to display security log status.	rept-stat-secu log
17 <input type="checkbox"/> <input type="checkbox"/>	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 25.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-secu log Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; </pre>
18 <input type="checkbox"/>	Issue the command to copy the security log from the standby disk.	copy-secu log:s log=stb:dfile=upgp15.spr
19 <input type="checkbox"/> <input type="checkbox"/>	Response to copy secu log command is displayed. If this command fails, proceed to next step. Otherwise, go to step 17.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Security log on TDM 111X copied to file upgp15.spr on TDM 111Y ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 0468.0177 SECULOG 111X Security log exception cleared ; </pre>
20 <input type="checkbox"/>	Issue the command to display the FTA directory.	disp-fta-dir
21 <input type="checkbox"/> <input type="checkbox"/>	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. If this is necessary, contact TEKELEC Customer Care Center for further information.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; </pre>
22 <input type="checkbox"/>	Issue the command to delete ALL files in the transfer area.	dlt-fta:all=yes
23 <input type="checkbox"/>	Response to the delete command is displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y dlt-fta:all=yes Command entered at terminal #nn. ; </pre>
24 <input type="checkbox"/>	Repeat Steps 18 – 19.	
25 <input type="checkbox"/>	Issue the command to copy to the standby disk.	copy-disk:dloc=XXX:force=yes:format=yes (Where XXXX is the location of the STANDBY TDM recorded in Step 2)
26 <input type="checkbox"/>	Response to the copy-disk command is displayed. Note: user terminal port may be automatically logged out. Wait for the card reload to complete.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Copy-disk (fixed): from active (YYYY) to standby (XXXX) started. Extended processing required, please wait. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Copy-disk (fixed): from active (XXXX) to standby (XXXX) complete. Measurements may be allowed now if desired. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 0485.0014 CARD 1115 EOAM Card is present ; </pre>
27 <input type="checkbox"/>	If the disk copy fails repeat steps 24 - 25.	<ol style="list-style-type: none"> Repeat Steps 25-26. If second attempt fails, contact Tekelec Customer Care Center.

Procedure 16: Upgrading Spare MUX cards

<p>S T E P #</p>	<p>This procedure describes how to upgrade your spare HMUX cards.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p> <p>Spare HMUX cards need to be downloaded with latest flash gpl. Due to changes incorporated in the new flash gpl if an HMUX card running a down level flash version is inserted into the system the card will steam errors to the screen.</p>	
<p>1</p> <p><input type="checkbox"/></p>	<p>Issue the command to display imt bus status.</p>	<p>rept-stat-mux</p>
<p>2</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the MUX status command is displayed.</p> <p>Record the types of MUX cards present:</p> <p><u>HMUX / HIPR / HIPR2</u></p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-mux Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD TYPE PST SST AST 1109 HMUX IS-NR Active ----- 1110 HMUX IS-NR Active ----- 1209 HIPR2 IS-NR Active ----- 1210 HIPR2 IS-NR Active ----- 1309 HIPR IS-NR Active ----- 1310 HIPR IS-NR Active ----- Command Completed. ;</pre>
<p>3</p> <p><input type="checkbox"/></p>	<p>Issue the command to display imt bus status.</p>	<p>rept-stat-imt</p>
<p>4</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the card status command is displayed.</p> <p>Verify that both imt buses are IS-NR.</p> <p>If either bus is not IS-NR Stop this procedure and call Tekelec Customer Care Center.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-imt Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ;</pre>
<p>5</p> <p><input type="checkbox"/></p>	<p>Issue the command to inhibit IMT bus-A.</p>	<p>inh-imt:bus=a</p>
<p>6</p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Inhibit IMT Bus A command issued ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 8687.0098 IMT BUS A IMT inhibited ;</pre>
<p>7</p> <p><input type="checkbox"/></p>	<p>Swap spare MUX cards with those on the IMT A-bus. (i.e. location 1109, 1209)</p>	<p>Note: swap cards of like types (using the output from step 2, a HMUX can be placed in 1109, while a HIPR can be placed in 1309.)</p>

Procedure 16: Upgrading Spare MUX cards

<p>8 <input type="checkbox"/></p>	<p>Issue the command to allow IMT bus-A.</p>	<p>alw-imt:bus=a</p>
<p>9 <input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Allow IMT Bus A command issued ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 8712.0097 IMT BUS A IMT allowed ;</pre>
<p>10 <input type="checkbox"/></p>	<p>Issue the card status command to identify the HMUX cards in the system.</p>	<p>rept-stat-gpl:gpl=xxxx (Where XXXX = is bphmux for HMUX, hipr for HIPR, or hipr2 for HIPR2 cards.)</p>
<p>11 <input type="checkbox"/></p> <p>Record the CARD locations for all MUX cards in the system not running the APPROVED version of the GPL.</p>		<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON ; APPL CARD RUNNING APPROVED TRIAL BPHMUX XX09 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX09 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX10 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed. ;</pre>
<p>12 <input type="checkbox"/></p>	<p>Enter the command to initialize the FLASH on a MUX card on the A-bus that is not running the APPROVED version of the GPL.</p>	<p>init-flash:loc=xx09:code=appr (Where XX = is a shelf number.)</p>
<p>13 <input type="checkbox"/></p>	<p>Response to the flash initialization is shown.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y init-flash:loc=xx09:code=appr Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Memory Download for card xx09 Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Memory Download for card xx09 Completed. ;</pre>
<p>14 <input type="checkbox"/></p>	<p>Repeat steps 12-13 for each card recorded in step 11.</p>	
<p>15 <input type="checkbox"/></p>	<p>Enter the command to initialize the current bus.</p>	<p>init-mux:bus=a</p>
<p>16 <input type="checkbox"/></p>	<p>Response to the initialization command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 5080.0014 CARD XX09 BPHMUX Card is present ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 5081.0014 CARD YY09 BPHMUX Card is present ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y * 5082.0004 * GPL SYSTEM BPHMUX Card is running non-activated GPL</pre>
<p>17 <input type="checkbox"/></p>	<p>Issue the command to activate the flash on a MUX card flashed in step 12.</p>	<p>act-flash:loc=xx09 (Where XX = is a shelf number.)</p>
<p>18 <input type="checkbox"/></p>	<p>Response to the activate command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Memory Activation for card 1209 Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Activation for card 1209 Completed. ;</pre>
<p>19 <input type="checkbox"/></p>	<p>Repeat steps 17-18 for each MUX card recorded in step 11.</p>	

Procedure 16: Upgrading Spare MUX cards

<p>20 <input type="checkbox"/></p>	<p>Issue the command to display the MUX card GPL status.</p>	<p>rept-stat-gpl:gp1==XXXX (Where XXXX = is bphmux for HMUX cards, hipr for HIPR cards, or hipr2 for HIPR2 cards.)</p>
<p>21 <input type="checkbox"/></p>	<p>Verify that all MUX cards are running the approved GPL.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL BPHMUX XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX09 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX BPHMUX XX10 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed.</pre>
<p>22 <input type="checkbox"/></p>	<p>Repeat steps 10-21 for all MUX card types.</p>	<p>;</p>
<p>23 <input type="checkbox"/></p>	<p>Repeat steps 3-22 until all spare MUX cards have been flashed.</p>	

Procedure 17: Verifying All Databases

<p>S T E P #</p>	<p>This procedure verifies the databases on the fixed disk and the removable media.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>Should THIS PROCEDURE FAIL, Contact TEKELEC Customer Care Center for assistance AND ASK FOR UPGRADE ASSISTANCE.</p>	
<p>1 <input type="checkbox"/></p>	<p>Issue the command to display database information.</p>	<p>rept-stat-db:display=all</p>
<p>2 <input type="checkbox"/></p> <p>Response to the command is displayed.</p> <p>Look in the columns labeled 'C,' 'T,' and 'LEVEL' output by this command.</p> <p><input type="checkbox"/> Verify entries in column 'C' show 'Y', which indicates coherence.</p> <p><input type="checkbox"/> Verify entries in column 'T' show 'N' (except the MDAL), which indicates that the database is not in transition.</p> <p><input type="checkbox"/> Verify all entries in the database LEVEL column are the same. LEVEL is a value, which varies depending on the system.</p> <p><input type="checkbox"/> If the STDBY databases are not coherent or at the correct level, repeat Procedure 3, step 8.</p> <p><input type="checkbox"/> Verify that the MPS databases are coherent.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 MDAL 1117 RD BKUP Y YYY YY-MM-DD hh:mm:ss TTTT 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 - 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 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 MDAL 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 ; </pre>	
<p>3 <input type="checkbox"/></p>	<p>When the command completes, remove the target-release RMD from the drive slot.</p>	<p>The RMD should be stored in a safe location.</p>

Procedure 18: Session 2 Completion

S T E P #	<p>This procedure resumes measurement collection.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR UPGRADE ASSISTANCE.</p>	
1 <input type="checkbox"/>	<p>If the measurements platform is enabled then go to step 3. Otherwise, if Procedure 13 Steps 3 & 4 were executed, issue the command to turn the measurements collection on.</p>	<p>chg-meas:collect=on</p>
2 <input type="checkbox"/>	<p>Response to change measurement command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y chg-meas:collect=on Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CHG-MEAS: MASP A - COMPLTD ;</pre>
3 <input type="checkbox"/>	<p>Issue status command for troubles.</p>	<p>rept-stat-trbl</p>
4 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<p>Response to command is displayed.</p> <p>If UAM 0002 is present where XXXX is a boot-prom GPL (i.e. BPHCAP or BPDCM), record it below:</p> <p>_____</p> <p>_____</p> <p>If any GPL is recorded contact Tekelec Customer Care Center and report the GPL alarm.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ;</pre>

→ This concludes SESSION TWO ←

6. RECOVERY PROCEDURES

Upgrade procedure recovery issues should be directed to the Tekelec Customer Care Center. Before executing any of these procedures, contact the Tekelec Customer Care Center at 1-888-FOR-TKLC (1-888-367-8552); or 1-919-460-2150 (international). In the event that other platforms are being upgraded in parallel, a determination whether recovery action is required on those platforms is required. Persons performing the upgrade should be familiar with these upgrade documents.

6.1 Backout Setup Procedures

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

Warning

Do not attempt to perform these backout procedures without first contacting the Tekelec Customer Care Center at 1-888-FOR-TKLC (1-888-367-8552); or 1-919-460-2150 (international)

6.2 Recovery Procedure A

Procedure 19: Load and Run Source OAM

S T E P #	Perform this Recovery Procedure if upgrading with removable media and a failure occurs in Procedure 6 through Procedure 8, Step 1. This procedure ensures that the source EOAM GPL is loaded from the fixed disk by removing the target-release media from the MDAL and rebooting the MASPs. Note: This procedure also needs to be executed in order to copy the IMT, BPDCM, and BPDCM2 GPLs from the source after performing procedures 20, 22, or 23 when upgrading with the fixed workspace. Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u> .	
	When directed to by Tekelec Customer Care Center, execute this procedure: If failure occurred between Procedure 6 and Procedure 8, Step 1, Table 19, Item B. Or if after the completion of Procedure 21, 22, and 23 (but not 24).	
1	<input type="checkbox"/> If MSD software delivery method used and target release media not yet removed, remove it now.	
2	<input type="checkbox"/> Insert source release media.	Once inserted, allow time for the source-release RMD to be detected by the system.
3	<input type="checkbox"/> Issue the command to retrieve BPDCM application data.	rtrv-gpl:gpl=bpdcn
4	<input type="checkbox"/> Response to rtrv-gpl command is displayed. Record the "REMOVE TRIAL" version: _____	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y rtrv-gpl:gpl=bpdcn Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL BPDCM 1114 XXX-XXX-XXX XXX-XXX-XXX yyy-yyy-yyy ----- BPDCM 1116 XXX-XXX-XXX XXX-XXX-XXX yyy-yyy-yyy XXX-XXX-XXX </pre>

Procedure 19: Load and Run Source OAM

5 <input type="checkbox"/>	Issue the command to change the gpl.	chg-gpl:gp1=bpdc:ver=xxx-xxx-xxx <i>(Where xxx-xxx-xxx is the GPL version recorded in the previous step)</i>																		
6 <input type="checkbox"/>	Response to chg-gpl command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y chg-gpl:gp1=bpdc:ver=xxx-xxx-xxx Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BPDCM upload to 1116 completed BPDCM upload to 1114 completed System Release ID table upload to 1116 completed System Release ID table upload to 1114 completed ;																		
7 <input type="checkbox"/>	If source release is 38.0 or higher, issue the command to retrieve BPDCM2 application data. ¹⁹	rtrv-gpl:gp1=bpdc2																		
8 <input type="checkbox"/>	Response to rtrv-gpl command is displayed. Record the "REMOVE TRIAL" version:	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON <table border="0"> <tr> <td>GPL</td> <td>CARD</td> <td>RELEASE</td> <td>APPROVED</td> <td>TRIAL</td> <td>REMOVE TRIAL</td> </tr> <tr> <td>BPDCM2</td> <td>1114</td> <td>xxx-xxx-xxx</td> <td>xxx-xxx-xxx</td> <td>yyy-yyy-yyy</td> <td>-----</td> </tr> <tr> <td>BPDCM2</td> <td>1116</td> <td>xxx-xxx-xxx</td> <td>xxx-xxx-xxx</td> <td>yyy-yyy-yyy</td> <td>xxx-xxx-xxx</td> </tr> </table> ;	GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE TRIAL	BPDCM2	1114	xxx-xxx-xxx	xxx-xxx-xxx	yyy-yyy-yyy	-----	BPDCM2	1116	xxx-xxx-xxx	xxx-xxx-xxx	yyy-yyy-yyy	xxx-xxx-xxx
GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE TRIAL															
BPDCM2	1114	xxx-xxx-xxx	xxx-xxx-xxx	yyy-yyy-yyy	-----															
BPDCM2	1116	xxx-xxx-xxx	xxx-xxx-xxx	yyy-yyy-yyy	xxx-xxx-xxx															
9 <input type="checkbox"/>	Issue the command to change the gpl.	chg-gpl:gp1=bpdc2:ver=xxx-xxx-xxx <i>(Where xxx-xxx-xxx is the GPL version recorded in the previous step)</i>																		
10 <input type="checkbox"/>	Response to chg-gpl command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y BPDCM2 upload to 1116 completed BPDCM2 upload to 1114 completed System Release ID table upload to 1116 completed System Release ID table upload to 1114 completed ;																		
11 <input type="checkbox"/>	If source release is 40.1 or higher, issue the command to retrieve BLMCAP application data. ²⁰	rtrv-gpl:gp1=blmcap																		
12 <input type="checkbox"/>	Response to rtrv-gpl command is displayed. Record the "REMOVE TRIAL" version:	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON <table border="0"> <tr> <td>GPL</td> <td>CARD</td> <td>RELEASE</td> <td>APPROVED</td> <td>TRIAL</td> <td>REMOVE TRIAL</td> </tr> <tr> <td>BLMCAP</td> <td>1114</td> <td>xxx-xxx-xxx</td> <td>xxx-xxx-xxx</td> <td>yyy-yyy-yyy</td> <td>-----</td> </tr> <tr> <td>BLMCAP</td> <td>1116</td> <td>xxx-xxx-xxx</td> <td>xxx-xxx-xxx</td> <td>yyy-yyy-yyy</td> <td>xxx-xxx-xxx</td> </tr> </table> ;	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
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															
13 <input type="checkbox"/>	Issue the command to change the gpl.	chg-gpl:gp1=blmcap:ver=xxx-xxx-xxx <i>(Where xxx-xxx-xxx is the GPL version recorded in the previous step)</i>																		
14 <input type="checkbox"/>	Response to chg-gpl command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ;																		
15 <input type="checkbox"/>	Issue the report card status command.	rept-stat-card:app1=oam																		

¹⁹ If unsure whether to execute this step, issue the command and if MTT "E2238 Cmd Rej: The GPL type entered is not currently supported" is displayed, go to Step 15.

²⁰ If unsure whether to execute this step, issue the command and if MTT "E2238 Cmd Rej: The GPL type entered is not currently supported" is displayed, go to Step 15.

Procedure 19: Load and Run Source OAM

<p><input type="checkbox"/> 16</p> <p><input type="checkbox"/></p>	<p>Response to the card status command is displayed.</p> <p>Record which MASP is Active and Standby.</p> <p>Record the card locations of the MASPs:</p> <p>Act MASP _____</p> <p>Stby MASP _____²¹</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1113 XXX-XXX-XXX GSM EOAM IS-NR Active ----- 1115 XXX-XXX-XXX GSM EOAM IS-NR Standby ----- Command Completed.</pre>
<p><input type="checkbox"/> 17</p>	<p>Issue the command to inhibit standby MASP.</p>	<p>inh-card:loc=XXXX</p> <p>Where XXXX is the location for the Standby MASP.</p>
<p><input type="checkbox"/> 18</p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited.</pre> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</pre>
<p><input type="checkbox"/> 19A</p>	<p>Unplug and re-insert the standby MASP.</p>	<p><input type="checkbox"/> Unseat the standby GSM card recorded in step 16.</p> <p><input type="checkbox"/> Unseat the standby TDM card determined in step 16.</p> <p><input type="checkbox"/> Re-seat the standby TDM card.</p> <p><input type="checkbox"/> Re-seat the standby GSM card.</p> <p>Note: UAMs are generated during this step. An audible alarm is generated.</p>
<p><input type="checkbox"/> 19B</p>	<p>Unplug and re-insert the standby E5-MASP.</p>	<p><input type="checkbox"/> 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).</p> <p><input type="checkbox"/> Unseat the standby E5-MASP card determined in step 16.</p> <p><input type="checkbox"/> Re-seat the standby E5-MASP card.</p> <p><input type="checkbox"/> Slide the MASP H/S switch (SW3) on the 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).</p> <p>Note: UAMs are generated during this step. An audible alarm is generated.</p>
<p><input type="checkbox"/> 20</p>	<p>Issue the command to allow card.</p>	<p>alw-card:loc=XXXX</p> <p>Where XXXX is the location for the Standby MASP.</p>
<p><input type="checkbox"/> 21</p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been allowed.</pre> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</pre>
<p><input type="checkbox"/> 22</p>	<p>Issue the report card status command.</p>	<p>rept-stat-card:appl=oam</p>

²¹ The Standby MASP may report IS-ANR (and the Standby TDM may report 00S-MT[Isolated.]) If so, check LEDs on the card. If LEDs are green, it is OK to proceed. This condition will clear after step 27.

Procedure 20: Full Fallback using Spare TDM/E5-MASP

<p>5B <input type="checkbox"/></p>	<p>Place spare E5-MASP in system.</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>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).</p> <p>Remove the standby E5-MASP card determined in step 2.</p> <p>Insert the standby E5-MASP card.</p> <p>Slide the MASP H/S switch (SW3) on the 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).</p> <p>Note: UAMs are generated during this step. An audible alarm is generated. Wait for the spare MASP to come up in standby mode and system returns to duplex mode.</p>
<p>6 <input type="checkbox"/></p>	<p>Insert the source-release media into the system.</p>	<p>For legacy, the MO in the MDAL; For E5-OAM, an USB drive in the active E5-MCAPs.</p> <p>Wait for the cartridge to spin up</p>	
<p>7 <input type="checkbox"/></p>	<p>After the standby MASP is available, issue the command to initialize the active MASP.</p>	<p>init-card:loc=XXXX (Where XXXX is the location of the ACTIVE MASP slot)</p>	
<p>8 <input type="checkbox"/></p>	<p>Response to command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y init-card:loc=XXXX Command entered at terminal #10. ; tekelecstp 99-01-02 08:28:34 EST Re1 XX.x.x-XX.x.x * 0261.0013 * CARD XXXX EOAM Card is isolated from the system ASSY SN: xxxxxxxx ; 5038.0014 CARD XXXX EOAM Card is present ASSY SN: xxxxxxxx ;</pre>	
<p>9 <input type="checkbox"/></p>	<p>Issue the command to log in to the system.</p>	<p>login:uid=XXXXXX (Where XXXXXX is a valid login ID)</p>	
<p>10 <input type="checkbox"/></p>	<p>Response to login command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y User logged in on terminal X</pre>	
<p>11 <input type="checkbox"/></p>	<p>Inhibit the standby MASP.</p>	<p>inh-card:loc=XXXX (Where XXXX is location of standby MASP)</p>	
<p>12 <input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>	
<p>13A <input type="checkbox"/></p>	<p>Put legacy MASP in simplex mode.</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>Unseat the card in the standby MASP slot (upgraded TDM)</p> <p>Init-card:loc=XXXX (Where XXXX is the location of the ACTIVE MASP slot)</p> <p>Wait for the active OAM to return to service and enter simplex mode.</p>
<p>13B <input type="checkbox"/></p>	<p>Put the E5-MASP system in simplex mode.</p>	<p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>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).</p> <p>Init-card:loc=XXXX (Where XXXX is the location of the ACTIVE MASP slot)</p> <p>Wait for the active OAM to return to service and enter simplex mode.</p>

Procedure 20: Full Fallback using Spare TDM/E5-MASP

<p>14 <input type="checkbox"/></p>	<p>Issue the retrieve GPL command to verify source-release GPLs.</p>	<p>rtrv-gpl</p>
<p>15 <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response to the retrieve command is displayed.</p> <p>Verify that the GPL versions in REMOVE TRIAL column and RELEASE column match those in Section 1.3 for “Source- Release GPLs.”</p> <p>Example here has location 1114 as the Active MASP slot.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y GPL Auditing OFF APPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL EOAM 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX EOAM 1116 ----- CDU 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX CDU 1116 ----- GLS 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX GLS 1116 ----- SCCP 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX SCCP 1116 ----- 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 ----- STPLAN 1114 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX STPLAN 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 -----</pre>
<p>16 <input type="checkbox"/></p>	<p>Issue the command to retrieve measurement setup.</p>	<p>rtrv-meas-sched</p>
<p>17 <input type="checkbox"/></p>	<p>Response to retrieve command is displayed.</p> <p>Record if collection is on or off: _____</p> <p>If COLLECT=ON, continue to next step. Otherwise, go to Step 20.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y COLLECT = off SYSTOT-STP = (off) SYSTOT-TT = (off) SYSTOT-STPLAN = (off) COMP-LNKSET = (off) COMP-LINK = (off) MTCd-STP = (on) MTCd-LINK = (on) MTCd-STPLAN = (on) MTCd-LNKSET = (on)</pre>
<p>18 <input type="checkbox"/></p>	<p>Issue the command to turn off measurement collection.²⁴</p>	<p>chg-meas:collect=off</p>
<p>19 <input type="checkbox"/></p>	<p>Response to the change command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y chg-meas:collect=off Command entered at terminal #10. tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CHG-MEAS: MASP A - COMPLTD</pre>
<p>20 <input type="checkbox"/></p>	<p>Inhibit the standby MASP.</p>	<p>inh-card:loc=XXXX (Where XXXX is location of standby MASP)</p>
<p>21 <input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited. tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</pre>
<p>22A <input type="checkbox"/></p>	<p>Re-seat the GPSM card in the standby MASP slot.</p>	<p>Allow the card time to initialize.</p>

²⁴ If executed, this step causes the database level to increment.

Procedure 20: Full Fallback using Spare TDM/E5-MASP

<p>22B <input type="checkbox"/></p>	<p>Slide the E5-MASP H/S switch (SW3) on the standby MASP down to the locked position (Wait for the MASP H/S LED to transition from blinking blue to off and the card to return to the IMT bus).</p>	<p>Allow the card time to initialize.</p>
<p>23 <input type="checkbox"/></p>	<p>Issue the command to initialize the flash memory.</p>	<p>init-flash:code=appr:loc=XXXX Where XXXX is the location for the Standby MASP.</p>
<p>24 <input type="checkbox"/></p>	<p>Response to the init flash command is displayed. Wait for the downloading to complete.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx started. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx completed. ;</pre>
<p>25 <input type="checkbox"/></p>	<p>Issue the command to allow card.</p>	<p>alw-card:loc=XXXX where XXXX is the location for the Standby MASP.</p>
<p>26 <input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>
<p>27 <input type="checkbox"/></p>	<p>Issue the report card status command.</p>	<p>rept-stat-card:appl=oam</p>
<p>28 <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response from the retrieve command is displayed. Verify that the standby MASP is running the upgrade source release GPL.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1113 XXX-XXX-XXX GPSP EOAM IS-NR Active ----- 1115 XXX-XXX-XXX GPSP EOAM IS-NR Standby ----- Command Completed. ;</pre>
<p>29 <input type="checkbox"/></p>	<p>Issue the command to activate the flash on the standby MASP.</p>	<p>act-flash:loc=XXXX (Where XXXX is the location for the Standby MASP.)</p>
<p>30 <input type="checkbox"/></p>	<p>Response to the activate command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y act-flash:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Memory Activation for card XXXX Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Activation for card XXXX Completed. ;</pre>
<p>31 <input type="checkbox"/></p>	<p>Issue the command to display security log status.</p>	<p>rept-stat-secu log</p>
<p>32 <input type="checkbox"/> <input type="checkbox"/></p>	<p>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</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y rept-stat-secu log Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 ;</pre>

Procedure 20: Full Fallback using Spare TDM/E5-MASP

33 <input type="checkbox"/>	Issue the command to copy the security log from the standby disk.	copy-secu log:slog=stb:dfile=upg.procc
34 <input type="checkbox"/> <input type="checkbox"/>	Response to the copy security log command is displayed. If this command fails, proceed to next step. Otherwise, go to Step 40.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Security log on TDM 111X copied to file upg28.procc on TDM 111Y ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 0468.0177 SECULOG 111X Security log exception cleared ;</pre>
35 <input type="checkbox"/>	Issue the command to display the FTA directory.	disp-fta-dir
36 <input type="checkbox"/> <input type="checkbox"/>	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. If this is necessary, contact Tekelec Customer Care Center for further information.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 ;</pre>
37 <input type="checkbox"/>	Issue the command to delete ALL files in the transfer area.	dlt-fta:all=yes
38 <input type="checkbox"/>	Response to the delete command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y dlt-fta:all=yes:loc=XXXX Command entered at terminal #nn. ;</pre>
39 <input type="checkbox"/>	Repeat Steps 31-34	
40 <input type="checkbox"/>	Issue the command to copy to the standby disk.	copy-disk:dloc=XXX:force=yes:format=yes (Where XXXX is the location of the STANDBY TDM)
41 <input type="checkbox"/> <input type="checkbox"/>	Response to the copy-disk command is displayed. Note: This command may require between 35 and 120 minutes to produce a response. As a result, the user terminal port may automatically log out. Wait for the card reload to complete. If this is the second time performing this step, go to Step 49. Otherwise continue.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Copy-disk (fixed): from active (YYYY) to standby (XXXX) started. Extended processing required, please wait. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Copy-disk (fixed): from active (XXXX) to standby (XXXX) complete. Measurements may be allowed now if desired. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 0485.0014 CARD 1115 EOAM Card is present ;</pre>
42 <input type="checkbox"/>	Issue the command to display card status.	rept-stat-card

Procedure 20: Full Fallback using Spare TDM/E5-MASP

<p>43 <input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the card status command is displayed.</p> <p>Verify that the GPL versions that are displayed in the "VERSION" column are correct; see Section 1.3.</p> <p>Record the Standby MASP and TDM: MASP: _____ TDM: _____</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y rept-stat-card Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL EST SST AST 1101 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1102 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1103 XXX-XXX-XXX TSM GLS IS-NR Active ----- 1104 XXX-XXX-XXX TSM GLS IS-NR Active ----- 1105 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ----- 1111 XXX-XXX-XXX ACMENET STPLAN IS-NR Active ----- 1113 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- 1114 ----- TDM ----- IS-NR Active ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Standby ----- 1116 ----- TDM ----- IS-NR Active ----- 1117 ----- MDAL ----- IS-NR Active ----- 1201 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1202 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1203 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1204 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1211 XXX-XXX-XXX LIMDS0 CCS7ITU IS-NR Active ----- 1218 XXX-XXX-XXX TSM GLS IS-NR Active ----- Command Completed. ;</pre>
<p>44 <input type="checkbox"/></p>	<p>Inhibit the standby MASP.</p>	<pre>inh-card:loc=XXXX (Where XXXX is location of standby MASP)</pre>
<p>45 <input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>
<p>46A <input type="checkbox"/></p>	<p>Replace the standby TDM with the TDM removed in Step 5.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Unseat the card in the standby MASP slot. <input type="checkbox"/> Remove the standby TDM card. <input type="checkbox"/> Insert the spare TDM card. <input type="checkbox"/> Re-seat the card in the MASP slot. Note: UAMs are generated during this step. An audible alarm is generated. Wait for the standby MASP/spare TDM to come up in standby mode.
<p>46B <input type="checkbox"/></p>	<p>Replace the standby E5-MASP with the E5-MASP removed in step 5.</p>	<ul style="list-style-type: none"> <input type="checkbox"/> 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). <input type="checkbox"/> Remove the standby E5-MASP card. <input type="checkbox"/> Insert the spare E5-MASP card. <input type="checkbox"/> Slide the MASP H/S switch (SW3) on the 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). <p>Note: UAMs are generated during this step. An audible alarm is generated. Wait for the spare MASP to come up in standby mode and system returns to duplex mode.</p>
<p>47 <input type="checkbox"/></p>	<p>If an E5-OAM system, insert the source-release media into the system.</p> <p>Otherwise, continue to next step.</p>	<p>Insert an USB drive in the standby E5-MCAPs.</p> <p>Wait for the cartridge to spin up</p>
<p>48 <input type="checkbox"/></p>	<p>Repeat steps 23 - 41.</p>	<p>After completing Step 41 the second time, continue to Step 49.</p>
<p>49 <input type="checkbox"/></p>	<p>If steps 18 & 19 were executed, issue the command to turn the measurements collection on.</p>	<pre>chg-meas:collect=on</pre>

Procedure 20: Full Fallback using Spare TDM/E5-MASP

<p>50 <input type="checkbox"/></p>	<p>Response to change measurement command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y chg-meas:collect=on Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CHG-MEAS: MASP A - COMPLTD ;</pre>
<p>51 <input type="checkbox"/></p>	<p>Execute Procedure 19.</p>	
<p>52 <input type="checkbox"/></p>	<p>If this completes the recovery as directed by the Tekelec Customer Care Center, verify the system with the EAGLE health check [1]. Otherwise continue with Recovery Procedure C</p>	<p>If failure occurred prior to entering Phase 3, recovery is complete.</p>

Procedure 21: Full Fallback using Fixed Disk as OAM conversion workspace – Case 1

S T E P #	<p>Perform the recovery procedure if directed to do so by TEKELEC CUSTOMER CARE CENTER when failure occurs in Procedure 6 through Procedure 8, Step 1. Note, this procedure is done in lieu of Procedure 19 for the case where a removable disk was NOT used as the workspace for the OAM conversion.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
	<p>When directed to by Tekelec Customer Care Center, execute this procedure: If failure occurred between Procedure 6 and Procedure 8, Step 1, Table 19, Item E.</p>	
1 <input type="checkbox"/>	Only perform this procedure if directed by Tekelec Customer Care Center.	
2 <input type="checkbox"/>	If present, remove the target-release media from the system.	
3 <input type="checkbox"/>	If an E5-MCAP system with source release is 41.4 or prior and the target release is 42.x; issue the command to set memory. Otherwise, go to Step 5	<p>set-mem:paddr=h' YYYYYY:byte=1:loc=XXXX</p> <p>(Where XXXX is the location for the Standby MASP & YYYYYY is the address specified in Table 22.)</p>
4 <input type="checkbox"/>	Response to the command is displayed. Repeat steps 3 – 4 for active MASP.	<p>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</p> <p>;</p>

Eagle (target) Release ²⁵	BLMCAP version	Address (YYYY)
42.0.0	133.38.17	h'915550
42.0.1		
42.0.2		
42.0.3		
42.0.4		
42.0.5		
42.1.0		
43.0.0	133.57.0	h' 91add0
43.0.1	133.62.0	h' 91ae50
43.0.2		

Table 22: Memory Address of g_cold_start by Eagle release.

5 <input type="checkbox"/>	Issue the command to initialize both MASP cards.	init-card:appl=oam
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²⁵ If specific target release is not listed, check if the BLMCAP GPL Version is the same as listed in column 2 and use corresponding Address.

Procedure 21: Full Fallback using Fixed Disk as OAM conversion workspace – Case 1

6 <input type="checkbox"/>	Response to initialize command is displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y * 0261.0013 * CARD 111X EOAM Card is isolated from the system ASSY SN: xxxxxxxxx ; </pre>
6 <input type="checkbox"/>	Ensure that the release shown in the banner is the source release after the MASP becomes active again.	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 5001.0009 CARD 111X EOAM MASP became active ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 5038.0014 CARD XXXX EOAM Card is present ASSY SN: xxxxxxxxx ; </pre>
7 <input type="checkbox"/>	Execute Procedure 19.	Proceed to Procedure 19 to complete the recovery.

Procedure 22: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

S T E P #	<p>Perform the recovery procedure if directed to do so by TEKELEC CUSTOMER CARE CENTER when failure occurs in Procedure 8, Step 1, Item F through Item I.</p> <p>This procedure makes the partition with the source GPLs active on the Standby TDM.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
	<p>When directed to by Tekelec Customer Care Center, execute this procedure: If failure occurred between Procedure 8, Step 1, Table 19, Item F and Procedure 8, Step 1, Table 19, Item I.</p>	
1 <input type="checkbox"/>	Eject target release media from system if MSD software delivery method used.	
2 <input type="checkbox"/>	Issue the command to display database status during upgrades.	act-upgrade:action=dbstatus
3 <input type="checkbox"/>	<p>Response to the command is displayed.</p> <p>Look at the status field and determine the loc of the TDM marked "UPG 2".</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Upg Phase X 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 Y XXX MDAL 1117 RD BKUP Y 1 - - CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS ----- 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 TDM-CRNT 1116 Y N XXX YY-MM-DD hh:mm:ss XXX-XXX-XXX UPG 2 TDM-BKUP 1116 Y - XXX YY-MM-DD hh:mm:ss XXX-XXX-XXX UPG 2 MDAL 1117 Y - 1 - - YYY-YYY-YYY 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 NORMAL TDM-BKUP 1114 Y - ZZZ YY-MM-DD hh:mm:ss ZZZ-ZZZ-ZZZ NORMAL TDM-CRNT 1116 Y - ZZZ YY-MM-DD hh:mm:ss ZZZ-ZZZ-ZZZ NORMAL TDM-BKUP 1116 Y - ZZZ YY-MM-DD hh:mm:ss ZZZ-ZZZ-ZZZ NORMAL ; </pre>
4 <input type="checkbox"/>	<p>If the TDM marked in "UPG 2" is the active MASP continue. Otherwise go to step 20.</p>	<p>inh-card:loc=XXXX</p> <p>(Where XXXX is the location for the Standby MASP.)</p>

Procedure 22: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

5 <input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed. ;</pre> <p>Note: wait for card to boot and return to the IMT bus.</p>
6 <input type="checkbox"/>	If an E5-MCAP system with source release is 41.4 or prior and the target release is 42.x; issue the command to set memory.	<p>set-mem:paddr=h' YYYYYY:byte=1:loc=XXXX</p> <p>(Where XXXX is the location for the Standby MASP & YYYYYY is the address specified inError! Reference source not found.)</p>
7 <input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed. ;</pre>

Eagle (target) Release ²⁶	BLMCAP version	Address (YYYY)
42.0.0	133.38.17	h'915550
42.0.1		
42.0.2		
42.0.3		
42.0.4		
42.0.5		
42.1.0	133.57.0	h' 91add0
43.0.0		
43.0.1		
43.0.2	133.62.0	h' 91ae50

Table 23: Memory Address of g_cold_start by Eagle release.

8 <input type="checkbox"/>	Issue the command to initialize the flash memory on the standby MASP.	<p>init-flash:code=trial:loc=XXXX</p> <p>(Where XXXX is the location for the Standby MASP.)</p>
9 <input type="checkbox"/>	Response to the init flash command is displayed. Wait for the downloading to complete	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.X.X-YY.Y.Y FLASH Memory Download for card xxxx started. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.X.X-YY.Y.Y FLASH Memory Download for card xxxx completed. ;</pre>
10 <input type="checkbox"/>	Issue the command to allow card.	<p>alw-card:loc=XXXX</p> <p>(Where XXXX is the location for the Standby MASP.)</p>
11 <input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed. ;</pre>
12 <input type="checkbox"/>	Issue the report card status command.	<p>rept-stat-card:appl=oam</p>

²⁶ If specific target release is not listed, check if the BLMCAP GPL Version is the same as listed in column 2 and use corresponding Address.

Procedure 22: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

<input type="checkbox"/> <input type="checkbox"/>	<p>Response from the retrieve command is displayed.</p> <p>Verify that the standby MASP is running the upgrade source release GPL.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1113 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Standby ----- Command Completed.</pre>
<input type="checkbox"/>	<p>Issue the command to activate the flash on the standby MASP.</p>	<p>act-flash:loc=XXXX</p> <p>(Where XXXX is the location for the Standby MASP.)</p>
<input type="checkbox"/>	<p>Response to the activate command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y act-flash:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Memory Activation for card XXXX Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Activation for card XXXX Completed. ;</pre>
<input type="checkbox"/>	<p>Issue the command to init active location.</p>	<p>init-card:loc=YYYY</p> <p>(Where YYYY is location of active MASP)</p>
<input type="checkbox"/>	<p>Response to initialize command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y * 0261.0013 * CARD XXXX EOAM Card is isolated from the system ASSY SN: xxxxxxxx ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 5038.0014 CARD XXXX EOAM Card is present ASSY SN: xxxxxxxx ;</pre>
<input type="checkbox"/>	<p>Issue the command to log back in to the system.</p>	<p>login:uid=XXXXXX</p> <p>(Where XXXXXX is a valid login ID)</p>
<input type="checkbox"/>	<p>Response to login command is displayed.</p> <p>Ignore any login failure message.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y User logged in on terminal 10. ; ? Login failures since last successful LOGIN Last successful LOGIN was on port ? on ??-??-?? @ ??:?:??</pre>
<input type="checkbox"/>	<p>Issue the command to display active/inactive disk partitions.</p>	<p>send-msg:ds=1:da=h'5d:f=h'47:loc=YYYY</p> <p>(Where YYYY is location of newly active MASP)</p>
<input type="checkbox"/>	<p>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)</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 Orig Appl ID = H'0030 Func ID = H'0047 Violation Ind = H'0000 Dest Subsys = H'0001 Dest Appl ID = H'005d Bus/Ret/Sut = H'0002 User Message sent to location YYYY. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ;</pre>

Procedure 22: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

22 <input type="checkbox"/>	Issue the command to swap active/inactive disk partitions.	<pre>send-msg:ds=1:da=h'5d:f=h'48:loc=YYYY</pre> <p>(Where YYYY is location of active MASP)</p>
23 <input type="checkbox"/> <input type="checkbox"/>	<p>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)</p> <p>Compare the values for the active_partitions and inactive_partitions with those in step 21. For the STANDBY OAM, the values for the active_partitions shown should equal those for the inactive_partitions shown in step 21, and vice-versa. For the ACTIVE OAM, both sets of values should be identical.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y System Buffer sent has following attributes : Msg Length = H'0010 Dest Card = H'00fb Orig Subsys = H'0001 Orig Appl ID = H'0030 Func ID = H'0048 Violation Ind = H'0000 Dest Subsys = H'0001 Dest Appl ID = H'005d Bus/Ret/Sut = H'0002 User Message sent to location YYYY. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Partition switch PASSED ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ;</pre>
24 <input type="checkbox"/>	Inhibit the standby MASP.	<pre>inh-card:loc=XXXX</pre> <p>(Where XXXX is the location for the Standby MASP.)</p>
25 <input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ; Note: wait for card to boot and return to the IMT bus.</pre>
26 <input type="checkbox"/>	If an E5-MCAP system with source release is 41.4 or prior and the target release is 42.x; issue the command to set memory.	<pre>set-mem:paddr=h'YYYYYY:byte=1:loc=XXXX</pre> <p>(Where XXXX is the location for the Standby MASP & YYYYYY is the address specified in Error! Reference source not found.)</p>
27 <input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>
28 <input type="checkbox"/>	Issue the command to initialize the flash memory on the standby MASP.	<pre>init-flash:code=trial:loc=XXXX</pre> <p>(Where XXXX is the location for the Standby MASP.)</p>
29 <input type="checkbox"/>	<p>Response to the init flash command is displayed.</p> <p>Wait for the downloading to complete.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx started. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx completed. ;</pre>
30 <input type="checkbox"/>	Issue the command to allow card.	<pre>alw-card:loc=XXXX</pre> <p>(Where XXXX is the location for the Standby MASP.)</p>

Procedure 22: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

31 <input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed. ;</pre>
32 <input type="checkbox"/>	Issue the report card status command.	rept-stat-card:appl=oam
33 <input type="checkbox"/> <input type="checkbox"/>	Response from the retrieve command is displayed. Verify that the standby MASP is running the upgrade source release GPL.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.X.X-YY.Y.Y CARD VERSION TYPE APPL PST SST AST 1113 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Standby ----- Command Completed. ;</pre>
34 <input type="checkbox"/>	Issue the command to activate the flash on the standby MASP.	act-flash:loc=XXXX (Where XXXX is the location for the Standby MASP.)
35 <input type="checkbox"/>	Response to the activate command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y act-flash:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y FLASH Memory Activation for card XXXX Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y FLASH Activation for card XXXX Completed. ;</pre>
36 <input type="checkbox"/>	If the active MASP is not running the upgrade source release gpl continue. Otherwise go to step 52.	init-card:loc=XXXX (Where XXXX is location of active MASP)
37 <input type="checkbox"/>	Response to initialize command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.X.X-YY.Y.Y * 0261.0013 * CARD XXXX EOAM Card is isolated from the system ASSY SN: xxxxxxxx ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.X.X-YY.Y.Y 5038.0014 CARD XXXX EOAM Card is present ASSY SN: xxxxxxxx ;</pre>
38 <input type="checkbox"/>	Issue the command to log back in to the system.	login:uid=XXXXXX (Where XXXXXX is a valid login ID)
39 <input type="checkbox"/>	Response to login command is displayed. Ignore any login failure message.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.X.X-YY.Y.Y User logged in on terminal 10. ; ? Login failures since last successful LOGIN Last successful LOGIN was on port ? on ??-??-?? @ ??:?:??</pre>
40 <input type="checkbox"/>	Inhibit the standby MASP.	inh-card:loc=XXXX (Where XXXX is the location for the Standby MASP.)
41 <input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed. ;</pre> <p>Note: wait for card to boot and return to the IMT bus.</p>
42 <input type="checkbox"/>	If an E5-MCAP system with source release is 41.4 or prior and the target release is 42.x; issue the command to set memory.	set-mem:paddr=h' YYYYYY:byte=1:loc=XXXX (Where XXXX is the location for the Standby MASP & YYYYYY is the address specified in Error! Reference source not found.)

Procedure 22: Full Fallback using Fixed Disk as OAM conversion workspace – Case 2

<input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>
<input type="checkbox"/>	Issue the command to initialize the flash memory on the standby MASP.	<pre>init-flash:loc=XXXX (Where XXXX is the location for the Standby MASP.)</pre>
<input type="checkbox"/>	Response to the init flash command is displayed. Wait for the downloading to complete.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx started. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx completed. ;</pre>
<input type="checkbox"/>	Issue the command to allow card.	<pre>allow-card:loc=XXXX (Where XXXX is the location for the Standby MASP.)</pre>
<input type="checkbox"/>	Response to the command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>
<input type="checkbox"/>	Issue the command to display the status of the MASP's GPL	<pre>rept-stat-card:appl=oam</pre>
<input type="checkbox"/> <input type="checkbox"/>	Response from the retrieve command is displayed. Verify that the standby MASP is running the upgrade source release GPL.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1113 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Standby ----- Command Completed. ;</pre>
<input type="checkbox"/>	Issue the command to activate the flash on the standby MASP.	<pre>act-flash:loc=XXXX (Where XXXX is the location for the Standby MASP.)</pre>
<input type="checkbox"/>	Response to the activate command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y act-flash:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Memory Activation for card XXXX Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Activation for card XXXX Completed. ;</pre>
<input type="checkbox"/>	Execute Procedure 19.	<p>Proceed to Procedure 19 to complete the recovery.</p>

Procedure 23: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

<p>S T E P #</p>	<p>Perform the recovery procedure if directed to do so by TEKELEC CUSTOMER CARE CENTER when failure occurs at Procedure 8, Step 1 or after. This procedure makes the partition with the source GPLs active on both TDMs.</p> <p>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 TEKELEC CUSTOMER CARE CENTER.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR UPGRADE ASSISTANCE.</p>
	<p>When directed to by Tekelec Customer Care Center, execute this procedure: If failure occurred between Procedure 8, Step 1, Table 19, Item J and Procedure 11 [End of Session 1].</p>
<p>1 <input type="checkbox"/></p>	<p>*** ATTENTION *** If this is an incremental upgrade (i.e. the SOURCE release equals the TARGET release, go to Procedure 4, Step 1.</p> <p><input type="checkbox"/> Is a level-1 cartridge available for the SOURCE release? ____ YES NO ____ <u>If yes, go to Procedure 4.</u> <u>If no, contact Tekelec Customer Care Center.</u> *****</p>
<p>2 <input type="checkbox"/></p>	<p>Remove the target-release media from the system if MSD software delivery method used.</p>
<p>3 <input type="checkbox"/></p>	<p>Issue the command to display active/inactive disk partitions.</p> <p>send-msg: ds=1:da=h'5d:f=h'47:l=cccc (Where cccc is location of active MASP)</p>
<p>4 <input type="checkbox"/></p>	<p>Response to command.</p> <p>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)</p> <pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; </pre>
<p>5 <input type="checkbox"/></p>	<p>Issue the command to swap active/inactive disk partitions.</p> <p>send-msg: ds=1:da=h'5d:f=h'48:l=cccc (Where cccc is location of active MASP)</p>

Procedure 23: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

<p>6</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to command.</p> <p>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)</p> <p>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.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Partition switch PASSED ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ;</pre>
<p>7</p> <p><input type="checkbox"/></p>	<p>Inhibit the standby MASP.</p>	<p>inh-card:loc=XXXX</p> <p>(Where XXXX is the location for the Standby MASP.)</p>
<p>8</p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ; Note: Wait for card to boot and return to the IMT bus.</pre>
<p>9</p> <p><input type="checkbox"/></p>	<p>If an E5-MCAP system with source release is 41.4 or prior and the target release is 42.x, issue the command to set memory.</p>	<p>set-mem:paddr=h'ZZZZZZ:byte=1:loc=XXXX</p> <p>(Where XXXX is the location for the Standby MASP & ZZZZZZ is the address specified in Error! Reference source not found.)</p>
<p>10</p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>

Eagle (target) Release ²⁷	BLMCAP version	Address (YYYY)
42.0.0	133.38.17	h'915550
42.0.1		
42.0.2		
42.0.3		
42.0.4		
42.0.5	133.57.0	h' 91add0
42.1.0		
43.0.0		
43.0.1	133.62.0	h' 91ae50
43.0.2		

Table 24: Memory Address of g_cold_start by Eagle release.

²⁷ If specific target release is not listed, check if the BLMCAP GPL Version is the same as listed in column 2 and use corresponding Address.

Procedure 23: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

11 <input type="checkbox"/>	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.)
12 <input type="checkbox"/>	Response to the init flash command is displayed. Wait for the downloading to complete.	tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx started. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx completed. ;
13 <input type="checkbox"/>	Issue the command to allow card.	alw-card:loc=XXXX (Where XXXX is the location for the Standby MASP.)
14 <input type="checkbox"/>	Response to the command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;
15 <input type="checkbox"/>	Issue the command to display the status of the MASP's GPL	rept-stat-card:appl=oam
16 <input type="checkbox"/> <input type="checkbox"/>	Response from the retrieve command is displayed. Verify that the standby MASP is running the upgrade source release GPL.	tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1113 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Standby ----- Command Completed. ;
17 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to the activate command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y act-flash:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Memory Activation for card XXXX Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Activation for card XXXX Completed. ;
19 <input type="checkbox"/>	If the SOURCE release is 42.0 or less and the TARGET release is 43.0 or greater, issue send-message command to initiate the rollback. Otherwise, go to step 21.	send-msg:ds=1:da=h'1d:oa=h'4d:f=h'cf:loc=YYYY (Where YYYY is the location of the Active MASP.)
20 <input type="checkbox"/>	Response to SEND-MSG command is displayed.	tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y send-msg:ds=1:da=h'1d:oa=h'4d:f=h'cf:loc=XXXX Command entered at terminal #nn. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y System Buffer sent has following attributes : Msg Length = H'0010 Dest Card = H'00fb Orig Subsys = H'0001 Orig Appl ID = H'004d Func ID = H'00cf Violation Ind = H'0000 Dest Subsys = H'0001 Dest Appl ID = H'001d Bus/Ret/Sut = H'0002 User Message sent to location XXXX. ;

Procedure 23: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

<p>21 <input type="checkbox"/></p>	<p>Issue the command to init active location.</p>	<p>init-card:loc=YYYY (Where YYYY is location of active MASP)</p>
<p>22 <input type="checkbox"/></p>	<p>Response to initialize command is displayed.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y * 0261.0013 * CARD XXXX EOAM Card is isolated from the system ASSY SN: xxxxxxxx ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y 5038.0014 CARD XXXX EOAM Card is present ASSY SN: xxxxxxxx ; </pre>
<p>23 <input type="checkbox"/></p>	<p>Issue the command to log back in to the system.</p>	<p>login:uid=XXXXXX (Where XXXXXX is a valid login ID)</p>
<p>24 <input type="checkbox"/></p>	<p>Response to login command is displayed. Ignore any login failure message.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y user logged in on terminal nn. ; ? Login failures since last successful LOGIN Last successful LOGIN was on port ? on ??-??-?? @ ??:?:?? </pre>
<p>25 <input type="checkbox"/></p>	<p>Issue the command to display active/inactive disk partitions.</p>	<p>send-msg:ds=1:da=h'5d:f=h'47:loc=XXXX (Where XXXX is location of newly active MASP)</p>
<p>26 <input type="checkbox"/></p>	<p>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)</p>	<pre> Command Accepted - Processing tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; </pre>
<p>27 <input type="checkbox"/></p>	<p>Issue the command to swap active/inactive disk partitions.</p>	<p>send-msg:ds=1:da=h'5d:f=h'48:loc=XXXX (Where XXXX is location of active MASP)</p>

Procedure 23: Full Fallback using Fixed Disk as OAM conversion workspace – Case 3

<p>28</p> <p><input type="checkbox"/></p> <p>Response to command.</p> <p>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)</p> <p><input type="checkbox"/></p> <p>Compare the values for the active_partitions and inactive_partitions with those in step 26. For the STANDBY OAM, the values for the active_partitions shown should equal those for the inactive_partitions shown in step 26, and vice-versa. For the ACTIVE OAM, both sets of values should be identical.</p>		<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Partition switch PASSED ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 ;</pre>
<p>29</p> <p><input type="checkbox"/></p>	<p>Inhibit the standby MASP.</p>	<p>inh-card:loc=YYYY</p> <p>(Where YYYY is the location for the Standby MASP.)</p>
<p>30</p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ; Note: wait for card to boot and return to the IMT bus.</pre>
<p>31</p> <p><input type="checkbox"/></p>	<p>If an E5-MCAP system with source release is 41.4 or prior and the target release is 42.x, issue the command to set memory.</p>	<p>set-mem:paddr=h'ZZZZZ:byte=1:loc=YYYY</p> <p>(Where YYYY is the location for the Standby MASP & ZZZZZ is the address specified in Error! Reference source not found.)</p>
<p>32</p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>
<p>33</p> <p><input type="checkbox"/></p>	<p>Issue the command to initialize the flash memory on the standby MASP.</p>	<p>init-flash:code=appr:loc=YYYY</p> <p>(Where YYYY is the location for the Standby MASP.)</p>
<p>34</p> <p><input type="checkbox"/></p>	<p>Response to the init flash command is displayed.</p> <p>Wait for the downloading to complete.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx started. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y FLASH Memory Download for card xxxx completed. ;</pre>
<p>35</p> <p><input type="checkbox"/></p>	<p>Issue the command to allow card.</p>	<p>alw-card:loc=YYYY</p> <p>(Where YYYY is the location for the Standby MASP.)</p>
<p>36</p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>

6.4 Recovery Procedure C

Procedure 24: 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 <input type="checkbox"/>	Issue the command to report card status.	rept-stat-card
2 <input type="checkbox"/>	Response to the card status command is displayed. <input type="checkbox"/> Record all network card applications present for future reference within the procedure.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL EST SST AST 1101 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1103 XXX-XXX-XXX TSM GLS IS-NR Fault ----- 1105 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ----- 1109 XXX-XXX-XXX HMUX BPHMUX IS-NR Active ----- 1110 XXX-XXX-XXX HMUX BPHMUX IS-NR Active ----- 1111 XXX-XXX-XXX ACMENET STPLAN IS-ANR Active ----- 1113 XXX-XXX-XXX GPSP EOAM IS-NR Active ----- 1114 ----- TDM ----- IS-NR Active ----- 1115 XXX-XXX-XXX GPSP EOAM IS-NR Standby ----- 1116 ----- TDM ----- IS-NR Active ----- 1117 ----- MDAL ----- IS-NR Active ----- 1201 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1202 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1209 XXX-XXX-XXX HMUX BPHMUX IS-NR Active ----- 1210 XXX-XXX-XXX HMUX BPHMUX IS-NR Active ----- 1211 XXX-XXX-XXX LIMDS0 CCS7ITU IS-NR Active ----- 1218 XXX-XXX-XXX TSM GLS IS-NR Active ----- Command Completed. ; </pre>
3 <input type="checkbox"/>	Issue the card status command.	rept-stat-card:appl=mcp
4 <input type="checkbox"/>	Response to the card status command is displayed. <input type="checkbox"/> If any MCPM cards are displayed, continue to next step. Otherwise, go to Step 8.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1108 128-020-051 EDSP MCP IS-NR Active ----- 5313 128-020-051 EDSP MCP IS-NR Active ----- Command Completed. ; </pre>
5 <input type="checkbox"/>	Issue the send message command. <input type="checkbox"/> Repeat for each MCPM card.	<p>send-msg:ds=8:da=h'17:f=22:loc=XXXX (Where XXXX is location of the MCPM cards display in previous step.)</p> <p>NOTE: This command causes the MCP 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.</p>
6 <input type="checkbox"/>	Response to the send message command is displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y System Buffer sent has following attributes : Msg Length = H'0010 Dest Card = H'00f7 Orig Subsys = H'0001 Orig Appl ID = H'004d Func ID = H'0016 Violation Ind = H'0000 User Message sent to location XXXX. Command Completed. ; </pre>

Procedure 24: Fall Back Procedure for Network Cards

<p>7</p> <p><input type="checkbox"/></p>	<p>*** ATTENTION ***</p> <p>If the SOURCE release is 41.0 or less, issue send-message command to initiate the rollback.²⁸ Otherwise, go to step 9.</p> <p>*****</p>	<p>send-msg:ds=1:da=h'e2:f=14:d0=h'4c:d1=h'1f:loc=XXXX</p> <p>(Where XXXX is the location of any LIM/SCCP card in the system.)</p>
<p>8</p> <p><input type="checkbox"/></p>	<p>Response to SEND-MSG command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y send-msg:ds=1:da=h'e2:f=14:d0=h'4c:d1=h'1f:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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'004d Dest Appl ID = H'00e2 Func ID = H'000e Bus/Ret/Sut = H'0002 Violation Ind = H'0000 User Message sent to location XXXX. ;</pre>
<p>9</p> <p><input type="checkbox"/></p>	<p>Issue the upgrade activation command.</p>	<p>ACT-UPGRADE:ACTION=CONVERTSTP:THRES=75 (target release on RMD)</p> <p>or</p> <p>ACT-UPGRADE:ACTION=CONVERTSTP:SRC=FIXED:THRES=75 (target release is contained on the inactive partition)</p> <p>(If another thres value is to be used see recommendation #5 in section 1.6)</p>
<p>10</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the upgrade command is displayed.</p> <p>Completion notice of successful upgrade. If upgrade does not complete successfully, see recommendation # 7 in section 1.6</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase 3 Starting network conversion... ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase 3 Upgrading MUX card 1109 ; Output continues until the following is displayed: tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Upg Phase 3 Command Complete : Upgrade action completed successfully ;</pre>
<p>11</p> <p><input type="checkbox"/></p>	<p>Go to Procedure 8, Step 7.</p>	<p>Complete all steps from Procedure 8, Step 7 to the end of Procedure 10.</p>

²⁸ The command needs to be sent to only one card. That card broadcasts to all other MTP cards in the system.

Procedure 25: Restoring Prom-Based Service Cards

S T E P #	<p>This procedure restores Service Cards that are prom-based. This group includes GLS and SCCP cards. This procedure updates each card with the source release GPLs.</p> <p>Note that Steps 3 - 4 are to be repeated for EACH service card group in the system.</p>	
1 <input type="checkbox"/>	Issue the command to display the GPL status.	<pre>rept-stat-gpl:gpl=YYYY (Where YYYY is one of the service card types listed above.)</pre>
2 <input type="checkbox"/>	<p>Response to the command is displayed.</p> <p>Record the CARD locations for all cards that have alarms:</p> <p>_____</p> <p>_____</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y rept-stat-gpl:gpl=YYYY Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ;</pre>
3 <input type="checkbox"/>	Issue the command to initialize the service cards.	<pre>init-card:appl=YYYY:serial=yes (Where YYYY is one of the service card types listed above.)</pre>
4 <input type="checkbox"/>	Command response.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Initializing 1 of 3 YYYY cards [1201] ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y ** 0092.0013 ** CARD 1201 YYYY Card is isolated from the system ASSY SN: 6050434 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 0093.0014 CARD 1201 YYYY Card is present ASSY SN: 6050434 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 0095.0096 CARD 1201 YYYY Card has been reloaded ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Initializing 2 of 3 YYYY cards [1202] ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y ** 0096.0013 ** CARD 1202 YYYY Card is isolated from the system ASSY SN: 10200011236 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 0100.0014 CARD 1202 YYYY Card is present ASSY SN: 10200011236 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 0104.0096 CARD 1202 YYYY Card has been reloaded ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Initializing 3 of 3 YYYY cards [1203] ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y ** 0105.0013 ** CARD 1203 YYYY Card is isolated from the system ASSY SN: 97012662 ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 0106.0014 CARD 1203 YYYY Card is present ASSY SN: 97012662 ;</pre>

Procedure 25: Restoring Prom-Based Service Cards

5 <input type="checkbox"/>	Repeat steps 1-4 for each of the application types in this group.	
6 <input type="checkbox"/>	Issue the command to display card status.	rept-stat-card
7 <input type="checkbox"/>	Response to the card status command is displayed. <input type="checkbox"/> Verify all Prom-Based service cards are in IS-NR state and running the Source-Release service GPLs; see Section 1.3	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL EST SST AST 1101 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1102 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1103 XXX-XXX-XXX TSM GLS IS-NR Active ----- 1104 XXX-XXX-XXX TSM EBDABLM IS-NR Active ----- 1105 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ----- 1111 XXX-XXX-XXX ACMENET STPLAN IS-NR Active ----- 1113 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- 1114 ----- TDM ----- IS-NR Active ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Standby ----- 1116 ----- TDM ----- IS-NR Active ----- 1117 ----- MDAL ----- IS-NR Active ----- 1201 XXX-XXX-XXX LIMDS0 YYYYY IS-NR Active ----- 1202 XXX-XXX-XXX LIMDS0 YYYYY IS-NR Active ----- 1203 XXX-XXX-XXX LIMDS0 YYYYY IS-NR Active ----- 1204 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- Command Completed. ; </pre>

Procedure 26: Restoring Flash-Based Service Cards

S T E P #	This procedure restores Service Cards that are flash based. This group includes IPS, MCP, EROUTE, VSCCP, SCCPHC, IPSHC and ERTHC cards. This procedure updates each card with the source release GPLs.	
1 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to the command is displayed. Record the CARD locations for all cards that have alarms:	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y rept-stat-gpl:gpl=YYYY Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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. ; </pre>
3 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to the inhibit command is displayed. Wait for the "Command completed" response before proceeding.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed. ; </pre>
5 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to the flash card command is displayed. Wait for command complete to indicate that the card is finished loading before proceeding.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y flash-card:code=appr:force=yes:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed. ; </pre>
7 <input type="checkbox"/>	Issue the command to allow the card ²⁹ 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)
8 <input type="checkbox"/>	Response to the allow command is displayed. ³⁰ Wait for the card to finish loading before proceeding (approximately 30 seconds).	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y alw-card:loc=1201 Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y Command Completed. ; </pre>

²⁹ Specifying the DATA=PERSIST parameter for SCCP application cards allows for warm restart if possible.

Procedure 26: Restoring Flash-Based Service Cards

<p>9 <input type="checkbox"/></p>	<p>Repeat Steps 3 – 8 for each card in the current group that has an alarm.</p>	
<p>10 <input type="checkbox"/></p>	<p>Repeat steps 1-9 for each group of cards (VSCCP, ISP, MCP, EROUTE, SCCPHC, IPSHC and ERTHC)</p>	
<p>11 <input type="checkbox"/></p>	<p>Issue the command to display the card status.</p>	<p>rept-stat-card</p>
<p>12 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response to the command is displayed.</p> <p>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</p> <p>For any such card that is not IS-NR or running the correct GPL, repeat Steps 3-4.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-card Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL EST SST AST 1101 XXX-XXX-XXX TSM VSCCP IS-NR Active ----- 1102 XXX-XXX-XXX TSM VSCCP IS-NR Active ----- 1103 XXX-XXX-XXX TSM EMDC IS-NR Active ----- 1104 XXX-XXX-XXX TSM EBDADCM IS-NR Active ----- 1105 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ----- 1111 XXX-XXX-XXX ACMENET STPLAN IS-NR Active ----- 1113 XXX-XXX-XXX GPSP EOAM IS-NR Active ----- 1114 ----- TDM ----- IS-NR Active ----- 1115 XXX-XXX-XXX GPSP EOAM IS-NR Standby ----- 1116 ----- TDM ----- IS-NR Active ----- 1117 ----- MDAL ----- IS-NR Active ----- 1201 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1202 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1203 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1204 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- Command Completed. ; </pre>

³⁰ 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 27: Restoring Prom-Based Link Cards

<p>S T E P #</p>	<p>This procedure updates the Prom-based Link cards with the source release GPLs. Cards in this group include SS7ANSI, CCS7ITU, SS7GX25, and STPLAN cards. This procedure updates each card with the source release GPLs.</p> <p>Note: Steps 3 through 16 are to be repeated for EACH low speed link card in the system.</p>
<p>1</p>	<p>Issue the command to display the GPL status.</p> <pre>rept-stat-gp1:gp1=YYYY</pre> <p>(Where YYYY is one of the PROM-based link card types listed above.)</p>
<p>2</p>	<p>Response to the command is displayed.</p> <p>Record the CARD locations for all cards which have alarms:</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-gp1:gp1=YYYY Command entered at terminal #10. ; 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 1203 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXX 1204 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX Command Completed. ;</pre>
<p>3</p>	<p>Issue command to display provisioned links.</p> <pre>rept-stat-card:loc=XXXX</pre> <p>(Where XXXX is a card in alarm from Step 2.)</p>
<p>4</p>	<p>Response displayed.</p> <p>Note whether links A and B are IS-NR for the current card.</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-card:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 CLI=----- SLK B PST = OOS-MT LS=XXXX CLI=----- Command Completed. ;</pre>
<p>5</p>	<p>Issue the command to cancel the port A link to the low speed link card if the link is IS-NR.</p> <pre>canc-slk:loc=XXXX:port=a</pre> <p>(Where XXXX is the card location of a Low Speed Link card determined in, Step 2) NOTE: Use canc-dlk:loc=XXXX for STPLAN cards</p>
<p>6</p>	<p>Response to cancel link command is displayed.</p> <p>Wait for the "Command completed" response before proceeding.</p> <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y canc-slk:loc=XXXX:port=a Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Deactivate Link message sent to card ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>

Procedure 27: Restoring Prom-Based Link Cards

<p>7 <input type="checkbox"/></p>	<p>For cards with signaling links, repeat steps 5-6 for port B of the same card if it is IS-NR.</p>	<p>(Port B status was noted in Step4 above.)</p>
<p>8 <input type="checkbox"/></p>	<p>Issue the command to inhibit the card.</p>	<p>inh-card:loc=XXXX (Where XXXX is the card location of the cards determined in Step 2)</p>
<p>9 <input type="checkbox"/></p>	<p>Response to the inhibit command is displayed. Wait for the “Command completed” response before proceeding.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y inh-card:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</pre>
<p>10 <input type="checkbox"/></p>	<p>Issue the command to allow the card.</p>	<p>alw-card:loc=XXXX (Where XXXX is the card location of the cards determined in Step2)</p>
<p>11 <input type="checkbox"/></p>	<p>Response to the allow command is displayed. Wait for the card to finish loading before proceeding (approximately 30 seconds).</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y alw-card:loc=1201 Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</pre>
<p>12 <input type="checkbox"/></p>	<p>Issue the command to activate the card’s link if it was IS-NR in Step 4.</p>	<p>act-slk:loc=XXXX:port=a (Where XXXX is the card location of the cards determined in Step2) NOTE: Use act-dlk:loc=XXXX for STPLAN cards.</p>
<p>13 <input type="checkbox"/></p>	<p>Response to the activate-link command is displayed. Wait for the “Command completed” response before proceeding.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y act-slk:loc=XXXX:port=a Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Activate Link message sent to card ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</pre>
<p>14 <input type="checkbox"/></p>	<p>Repeat Step 12 – 13 for port B of the same card if it was IS-NR in Step 4. Otherwise, go to step 15.</p>	
<p>15 <input type="checkbox"/></p>	<p>Issue command to display provisioned links.</p>	<p>rept-stat-card:loc=XXXX</p>
<p>16 <input type="checkbox"/></p>	<p>Response displayed. Verify that the links that were IS-NR in Step 4 are IS-NR now.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-card:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 CLI=----- SLK B PST = OOS-MT LS=XXXX CLI=----- Command Completed.</pre>

Procedure 27: Restoring Prom-Based Link Cards

<p>17 <input type="checkbox"/></p>	<p>Repeat Steps 3 - 16 for each card in the group from Step 2 that has an alarm.</p>	
<p>18 <input type="checkbox"/></p>	<p>Repeat Steps 1-17 for each Prom-Based Link card group (SS7ANSI, CCS7ITU, SS7GX25, STPLAN.)</p>	
<p>19 <input type="checkbox"/></p>	<p>Issue the command to display the GPL status.</p>	<p>rept-stat-card</p>
<p>20 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response to the command is displayed.</p> <p>Verify that all Prom-Based Link cards are IS-NR and are running the Source-Release GPL versions, as per your reference list of GPLs</p> <p>For any card that is not IS-NR or running the correct GPL, repeat Steps 3-16.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y rept-stat-card Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y CARD VERSION TYPE APPL EST SST AST 1101 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1102 XXX-XXX-XXX TSM SCCP IS-NR Active ----- 1103 XXX-XXX-XXX TSM GLS IS-NR Active ----- 1104 XXX-XXX-XXX TSM GLS IS-NR Active ----- 1105 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ----- 1111 XXX-XXX-XXX ACMENET STPLAN IS-NR Active ----- 1113 XXX-XXX-XXX GPSPM EOAM IS-NR Active ----- 1114 ----- TDM ----- IS-NR Active ----- 1115 XXX-XXX-XXX GPSPM EOAM IS-NR Standby ----- 1116 ----- TDM ----- IS-NR Active ----- 1117 ----- MDAL ----- IS-NR Active ----- 1201 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ----- 1202 XXX-XXX-XXX LIMDS0 CCS7ITU IS-NR Active ----- 1203 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ----- 1204 XXX-XXX-XXX LIMDS0 STPLAN IS-NR Active ----- Command Completed. ; </pre>

Procedure 28: Restoring Flash-Based Link Cards

<p>S T E P #</p>	<p>Link cards include ATMANSI, IPLIM, IPLIMI, SS7IPGW, SS7ML (MPL/MIM/MPLT), IPGWI, ATMITU, VXWSLAN, SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC and SLANHC cards.</p> <p>This procedure updates each card with the source release GPLs.</p> <p>Note: Steps 3 through 8 are to be repeated for EACH Link card in the system.</p>
<p>1 <input type="checkbox"/></p>	<p>Issue the command to display the GPL status.</p> <p>rept-stat-gpl:gpl=YYYY (Where YYYY is one of the Flash-Based Link card types listed above.)</p>
<p>2 <input type="checkbox"/></p> <p>Response to the command is displayed.</p> <p>Record the CARD locations for all cards which have alarms:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-gpl:gpl=YYYY Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON APPL CARD RUNNING APPROVED TRIAL XXXXXXXX 1201 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXXX 1202 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXXX 1205 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXXX 1207 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX XXXXXXXX 1209 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX XXXXXXXX 1211 XXX-XXX-XXX XXX-XXX-XXX XXX-XXX-XXX Command Completed. ;</pre>
<p>3 <input type="checkbox"/></p>	<p>Issue command to display provisioned links.</p> <p>rept-stat-card:loc=XXXX (Where XXXX is a card in alarm from Step 2.)</p>
<p>4 <input type="checkbox"/></p> <p>Response displayed.</p> <p>Note which links are IS-NR for this card.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-card:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 XXXXXXXX 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. ;</pre>
<p>5 <input type="checkbox"/></p>	<p>Issue the command to initialize the flash memory.</p> <p>flash-card:code=appr:force=yes:loc=XXXX</p> <p>NOTE: this command causes the card to boot.</p>

Procedure 28: Restoring Flash-Based Link Cards

<p>6</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the flash card command is displayed.</p> <p>Wait for command complete to indicate that the card is finished loading before proceeding.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y flash-card:code=appr:force=yes:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed.</pre>
<p>7</p> <p><input type="checkbox"/></p>	<p>Issue command to display provisioned links.</p>	<p>rept-stat-card:loc=XXXX</p>
<p>8</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response displayed.</p> <p>Verify that the links that were IS-NR in Step 4 are IS-NR now.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-card:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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.</pre>
<p>9</p> <p><input type="checkbox"/></p>	<p>Repeat Steps 3 - 8 for each card in the group from Step 2 that has an alarm.</p>	
<p>10</p> <p><input type="checkbox"/></p>	<p>Repeat Steps 1-9 for each Flash-Based Link card group (ATMANSI, IPLIM, IPLIMI, SS7IPGW, SS7ML (MPL\MIM\MPLT), IPGWI, VXWSLAN, SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC and SLANHC.)</p>	
<p>11</p> <p><input type="checkbox"/></p>	<p>Issue the command to display the GPL status.</p>	<p>rept-stat-card</p>
<p>12</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p> <p>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</p> <p>For any card that is not IS-NR or running the correct GPL, repeat Steps 3-8.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-card Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL EST SST AST 1101 XXX-XXX-XXX TSM SCCP IS-NR Active ---- 1102 XXX-XXX-XXX TSM SCCP IS-NR Active ---- 1103 XXX-XXX-XXX TSM GLS IS-NR Active ---- 1104 XXX-XXX-XXX TSM GLS IS-NR Active ---- 1105 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ---- 1111 XXX-XXX-XXX ACMENET STPLAN IS-NR Active ---- 1113 XXX-XXX-XXX GPSP EOAM IS-NR Active ---- 1114 ----- TDM ----- IS-NR Active ---- 1115 XXX-XXX-XXX GPSP EOAM IS-NR Standby ---- 1116 ----- TDM ----- IS-NR Active ---- 1117 ----- MDAL ----- IS-NR Active ---- 1201 XXX-XXX-XXX LIMDS0 SS7ANSI IS-NR Active ---- 1202 XXX-XXX-XXX LIMDS0 CCS7ITU IS-NR Active ---- 1203 XXX-XXX-XXX LIMDS0 SS7GX25 IS-NR Active ---- 1204 XXX-XXX-XXX LIMDS0 STPLAN IS-NR Active ---- Command Completed.</pre>

Procedure 29: Restoring Mux Cards

S T E P #	This procedure updates each card with the source release GPLs. Mux cards include HMUX, HIPR, and HIPR2 cards, which run BPHMUX, HIPR, and HIPR2 GPLs respectively.	
1 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to the command is displayed. Record the CARD locations for all Mux cards in the system: _____ _____ _____ _____ _____	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y rept-stat-gpl:gpl=YYYY Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y GPL Auditing ON APPL CARD RUNNING ALM APPROVED TRIAL YYYY XX09 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX YYYY XX10 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 YYYY XX09 XXX-XXX-XXX ALM XXX-XXX-XXX XXX-XXX-XXX YYYY XX10 XXX-XXX-XXX XXX-XXX-XXX Command Completed. ; </pre>
3 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to the flash initialization is shown.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y init-flash:loc=XX09:code=appr Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y FLASH Memory Download for card XXZZ Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y FLASH Memory Download for card XXZZ Completed. ; </pre>
5 <input type="checkbox"/>	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 <input type="checkbox"/>	Enter the command to initialize the current bus.	init-mux:bus=x³¹ (Where x = A or B, depending on current bus: xx09 is bus A; xx10 is bus B.)
7 <input type="checkbox"/>	Response to the initialization command is displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y init-mux:bus=a Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 5080.0014 CARD XXZZ YYYY Card is present ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y 5081.0014 CARD XXZZ YYYY Card is present ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-YY.Y.Y * 5082.0004 * GPL SYSTEM YYYY Card is running non-activated GPL </pre>

³¹ Warning: Do not use the FORCE= parameter. Use of this parameter may result in network outage. Analysis of the alternate bus is required.

Procedure 29: Restoring Mux Cards

8 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to the activate command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y act-flash:loc=XXZZ Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Memory Activation for card XXZZ Started. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y FLASH Activation for card XXZZ Completed. ;																																													
10 <input type="checkbox"/>	Repeat steps 8-9 for each MUX card on the current bus (A or B.)																																														
11 <input type="checkbox"/>	Repeat steps 3-10 for the second bus (A or B.)																																														
12 <input type="checkbox"/>	Issue the command to display the MUX card GPL status.	rept-stat-gpl:gpl=YYYY (Where YYYY is one of the Flash-Based MUX card types listed above.)																																													
13 <input type="checkbox"/>	Verify that all MUX card types are running the approved GPL.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-gpl:gpl=YYYY Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y GPL Auditing ON <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">APPL</th> <th style="text-align: left;">CARD</th> <th style="text-align: left;">RUNNING</th> <th style="text-align: left;">APPROVED</th> <th style="text-align: left;">TRIAL</th> </tr> </thead> <tbody> <tr> <td>YYYY</td> <td>XX09</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> </tr> <tr> <td>YYYY</td> <td>XX10</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> </tr> <tr> <td>YYYY</td> <td>XX09</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> </tr> <tr> <td>YYYY</td> <td>XX10</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> </tr> <tr> <td>YYYY</td> <td>XX09</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> </tr> <tr> <td>YYYY</td> <td>XX10</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> </tr> <tr> <td>YYYY</td> <td>XX09</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> </tr> <tr> <td>YYYY</td> <td>XX10</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> <td>XXX-XXX-XXX</td> </tr> </tbody> </table> Command Completed. ;	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
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Appendix A. Upgrading boot-prom gpl on non-in-service and unprovisioned network cards.

Procedure 30: Flashing Inactive Cards

S T E P #	This procedure determines any BPHCAP, BPHCAPT, BPDCM, BPMPL, BPMPLT, or IMTPCI cards that are inhibited, and updates each card with its target release GPLs. (See section 1.3 for complete list of flash GPLs.)	
1 <input type="checkbox"/>	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 <input type="checkbox"/> <input type="checkbox"/>	Response to the command is displayed. Record any card which shows an alarm: _____	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y rept-stat-gpl:gpl=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.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 <input type="checkbox"/>	Issue the status command for specific card	rept-stat-card:loc=XXXX (Where XXXX is the card location recorded in the previous step.)
4 <input type="checkbox"/>	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 ³² , go to step 7.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1111 ----- DSM VS CCP 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 <input type="checkbox"/>	Issue the command to inhibit card.	inh-card:loc=XXXX
6 <input type="checkbox"/>	Response to the command is displayed.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been inhibited. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;
7 <input type="checkbox"/>	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 <input type="checkbox"/>	Response to the flash command is displayed. Wait for the card to finish loading before proceeding.	tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y flash-card:code=appr:loc=XXXX Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;

³² E2144 Cmd Rej: Location invalid for hardware configuration

Procedure 30: Flashing Inactive Cards

<p>9 <input type="checkbox"/></p>	<p>If steps 5 & 6 were executed, issue the command to allow card.</p>	<p>a1w-card:loc=XXXX</p>
<p>10 <input type="checkbox"/></p>	<p>Response to the command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Command Completed. ;</pre>
<p>11 <input type="checkbox"/></p>	<p>Repeat Steps 3 – 10 for all cards recorded in step 2.</p>	
<p>12 <input type="checkbox"/></p>	<p>Repeat Steps 1 – 11 for each group of Flash-Based cards (see section 1.3.)</p>	

Appendix B. 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 credit card drive containing the upgrade target release for the E5-MASP. This procedure assumes that Tekelec has completed the rollout of the Server Software Delivery (SSD) solution for the Eagle product.

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

- System is running release 39.2 or later
- E5-IPSM card defined, configured, and IS-NR
- DIST application FTP server provisioned
- DIST application FTP server downloaded with target release software

Procedure 31: Download Target Release to Inactive Partition

S T E P	This procedure downloads the target release to inactive partition of the TDMs. The system must currently be running Eagle release 39.2 or higher.	
#	Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.	
#	SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR UPGRADE ASSISTANCE.	
1 <input type="checkbox"/>	If system is running the E5-OAM platform, remove the thumb drives from the E5-MASPs.	
2 <input type="checkbox"/>	If downloading the upgrade target release from an FTP server, continue, otherwise go to step 5.	
3 <input type="checkbox"/>	Issue the command to display the status of the IPSM cards.	rept-stat-card:appl=ips
4 <input type="checkbox"/> <input type="checkbox"/>	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 executed.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CARD VERSION TYPE GPL PST SST AST 1101 XXX-XXX-XXX IPSM IPSHC IS-NR Active -----</pre>
5 <input type="checkbox"/>	Issue the command to display database status of both TDM partitions.	act-upgrade:action=dbstatus

Procedure 31: Download Target Release to Inactive Partition

<p>6</p> <p><input type="checkbox"/></p> <p>Record the card locations of the MASP's:</p> <p>Act MASP _____</p> <p>Stby MASP _____</p> <p><input type="checkbox"/></p> <p>Verify if either of the inactive partitions has not been formatted. Mark below. Example shows that inactive partition of 1116 not formatted.</p> <p>If a database LEVEL, VERSION or STATUS is displayed the inactive partition has been formatted.</p> <p><input type="checkbox"/></p> <p>Disk formatted.</p> <p>1114 _____</p> <p>1116 _____</p>	<p>Response to the command is displayed.</p> <p>Record the card locations of the MASP's:</p> <p>Act MASP _____</p> <p>Stby MASP _____</p> <p>Verify if either of the inactive partitions has not been formatted. Mark below. Example shows that inactive partition of 1116 not formatted.</p> <p>If a database LEVEL, VERSION or STATUS is displayed the inactive partition has been formatted.</p> <p>Disk formatted.</p> <p>1114 _____</p> <p>1116 _____</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 XXX YY-MM-DD hh:mm:ss TTTT Y XXX YY-MM-DD hh:mm:ss TTTT FD CRNT Y XXX MDAL 1117 RD BKUP Y 1 - - CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS ----- 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 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 MDAL 1117 Y - 1 - - YYY-YYY-YYY 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 NORMAL TDM-BKUP 1114 Y - ZZZ YY-MM-DD hh:mm:ss ZZZ-ZZZ-ZZZ NORMAL TDM-CRNT 1116 - - - - - - - - TDM-BKUP 1116 - - - - - - - - ; </pre>
<p>7</p> <p><input type="checkbox"/></p>	<p>If either of the inactive partitions has not been formatted continue, otherwise go to Step 31.</p>	
<p>8</p> <p><input type="checkbox"/></p>	<p>Issue the command to retrieve measurement setup.</p>	<p>rtrv-meas-sched</p>
<p>9</p> <p><input type="checkbox"/></p> <p>Record if collection is on or off:</p> <p>_____</p> <p>If COLLECT=ON, continue to next step. Otherwise, go to Step 12.</p>	<p>Response to retrieve command is displayed.</p> <p>Record if collection is on or off:</p> <p>_____</p> <p>If COLLECT=ON, continue to next step. Otherwise, go to Step 12.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y COLLECT = off SYSTOT-STP = (off) SYSTOT-TT = (off) SYSTOT-STPLAN = (off) COMP-LNKSET = (off) COMP-LINK = (off) MTCB-STP = (on) MTCB-LINK = (on) MTCB-STPLAN = (on) MTCB-LNKSET = (on) ; </pre>
<p>10</p> <p><input type="checkbox"/></p>	<p>Issue the command to turn off measurement collection.³³</p>	<p>chg-meas:collect=off</p>
<p>11</p> <p><input type="checkbox"/></p>	<p>Response to the change command is displayed.</p>	<pre> tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CHG-MEAS: MASP A - COMPLTD ; </pre>
<p>12</p> <p><input type="checkbox"/></p>	<p>If the inactive partition of the standby MASP has not been formatted continue, otherwise go to Step 26.</p>	

³³ If executed, this step causes the database level to increment.

Procedure 31: Download Target Release to Inactive Partition

<p>13 <input type="checkbox"/></p>	<p>Issue the command to display security log status.</p>	<p>rept-stat-secu log</p>
<p>14 <input type="checkbox"/> <input type="checkbox"/></p>	<p>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 21</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y rept-stat-secu log Command entered at terminal #10. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 ;</pre>
<p>15 <input type="checkbox"/></p>	<p>Issue the command to copy the security log from the standby disk.</p>	<p>copy-secu log:slog=stb:dfile=upg.appB</p>
<p>16 <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response to the copy security log command is displayed. If this command fails, proceed to next step. Otherwise, go to Step 21.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Security log on TDM 111X copied to file upg.appB on TDM 111Y ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 0468.0177 SECULOG 111X Security log exception cleared ;</pre>
<p>17 <input type="checkbox"/></p>	<p>Issue the command to display the FTA directory.</p>	<p>disp-fta-dir</p>
<p>18 <input type="checkbox"/> <input type="checkbox"/></p>	<p>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. If this is necessary, contact Tekelec Customer Care Center for further information.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.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 ;</pre>
<p>19 <input type="checkbox"/></p>	<p>Issue the command to delete ALL files in the transfer area.</p>	<p>dlt-fta:all=yes</p>
<p>20 <input type="checkbox"/></p>	<p>Response to the delete command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y dlt-fta:all=yes:loc=XXXX Command entered at terminal #10. ;</pre>
<p>21 <input type="checkbox"/></p>	<p>Issue the command to format the inactive partition of the standby MASP.</p>	<p>format-disk:prtnggrp=inactive:type=fixed:force=yes:low=no</p>
<p>22 <input type="checkbox"/></p>	<p>Response from the format disk command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Format-disk of system fixed disk started. Extended processing required, please wait. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Format-disk of system fixed disk complete. ;</pre>
<p>23 <input type="checkbox"/></p>	<p>Issue the command to display database status of both TDM partitions.</p>	<p>act-upgrade:action=dbstatus</p>

Procedure 31: Download Target Release to Inactive Partition

<p>24</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p> <p>Verify the inactive partition of the standby has been formatted. And the active partition is valid.</p> <p>If a database LEVEL, VERSION or STATUS is displayed the inactive partition has been formatted.</p> <p>If the database LEVEL of the active partition of the active and standby are not the same stop the procedure and contact Tekelec Customer Care Center.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y DATABASE STATUS: >> OK << TDM 1114 (ACTV) 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 MDAL 1117 ----- RD BKUP Y 1 - - CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS ----- 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 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 MDAL 1117 Y - 1 - - YYY-YYY-YYY NORMAL INACTIVE PARTITION GROUP CARD/APPL LOC C T LEVEL TIME LAST UPDATE VERSION STATUS ----- TDM-CRNT 1114 - - - - - TDM-BKUP 1116 - - - - - TDM-CRNT 1116 N - 1 YY-MM-DD hh:mm:ss ZZZ-ZZZ-ZZZ NORMAL TDM-BKUP 1116 N - 1 YY-MM-DD hh:mm:ss ZZZ-ZZZ-ZZZ NORMAL</pre>
<p>25</p> <p><input type="checkbox"/></p>	<p>If the inactive partition of the active MASP has not been formatted continue, otherwise go to Step 31.</p>	
<p>26</p> <p><input type="checkbox"/></p>	<p>Issue the command to boot the Active MASP recorded in Step 6.</p>	<p>init-card:loc=XXXX (Where the XXXX is the location of the active MASP record in a previous)</p>
<p>27</p> <p><input type="checkbox"/></p>	<p>Response to init card command is displayed.</p>	<pre>* tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 0261.0013 * CARD 111X EOAM Card is isolated from the system ASSY SN: xxxxxxxx ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 5001.0009 CARD 111X EOAM MASP became active ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 5038.0014 CARD XXXX EOAM Card is present ASSY SN: xxxxxxxx ;</pre>
<p>28</p> <p><input type="checkbox"/></p>	<p>Issue the command to log back in to the system.</p>	<p>login:uid=XXXXXX (Where XXXXXX is a valid login ID)</p>
<p>29</p> <p><input type="checkbox"/></p>	<p>Response to login command is displayed.</p> <p>Ignore any login failure message.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y User logged in on terminal 10. ; ? Login failures since last successful LOGIN Last successful LOGIN was on port ? on ??-??-?? @ ??:??:??</pre>
<p>30</p> <p><input type="checkbox"/></p>	<p>Repeat step 13 – 25.</p>	
<p>31</p> <p><input type="checkbox"/></p>	<p>If downloading the upgrade target release from an FTP server, continue,</p> <p>Otherwise, insert upgrade media into drive slot and go to step 34.</p>	<p>Once inserted, allow time for the upgrade media to be detected by the system.</p> <p>For E5-OAM systems, the credit card is inserted in the flush mounted USB port on the active E5-MASP.</p>
<p>32</p> <p><input type="checkbox"/></p>	<p>Issue command to retrieve the FTP servers provisioned on the system.</p>	<p>rtrv-ftp-serv</p>

Procedure 31: Download Target Release to Inactive Partition

<p>33</p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p> <p>Verify that a software distribution, DIST, application server has been provisioned.</p> <p>If the DIST has not been provisioned see section 1.2.1 reference [3] for instructions on how to provision it.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y APP IPADDR LOGIN PRIO PATH ----- DIST XXX.XX.X.XX aaaaaa Z aaaaaaaaaaaaaaaaaa No entries found ; ;</pre>
<p>34</p> <p><input type="checkbox"/></p>	<p>Issue command to retrieve the EAGLE target release software.</p>	<pre>act-upgrade:action=getrel:release="xxx-xxxx-4xx_REVxx.tar.gz" :src=server (downloading from the FTP server) (Where xxx-xxxx-4xx_REVxx.tar.gz is the name of the tar file that contains the upgrade target release software) or act-upgrade:action=getrel:release="xx.xx.xx-yy.yy.yy.tar.gz" :src=usb (downloading from credit card USB) (Where the xx.xx.xx-yy.yy.yy is the release-build number of the upgrade target load (ex. 42.0.0-63.11.0.tar.gz).</pre>
<p>35</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p>Response to the command is displayed.</p> <p>Command execution time: approximately 20 – 30 minutes.</p> <p>If the software release has been downloaded from the credit card USB, disconnect the drive from the E5-MASP.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Download release from zzzzzzzz ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Validate database release xx.xx.xx-yy.yy.yy.tar ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Copy database release to inactive partition ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Eagle Release successfully downloaded ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Command Complete : Upgrade action completed successfully ;</pre>
<p>36</p> <p><input type="checkbox"/></p>	<p>If step 10 was executed, issue the command to turn the measurements collection on. Otherwise go to the end of the procedure.</p>	<pre>chg-meas:collect=on</pre>
<p>37</p> <p><input type="checkbox"/></p>	<p>Response to the change command is displayed.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y CHG-MEAS: MASP A - COMPLTD ;</pre>

Appendix C. Entering upgrade software access key

Procedure 32: Validate Upgrade Software Access Key

<p>S T E P #</p>	<p>This procedure will validate the Upgrade Software Access Key against the upgrade target release.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>SHOULD THIS PROCEDURE FAIL, CONTACT TEKELEC CUSTOMER CARE CENTER AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
<p>1 <input type="checkbox"/></p>	<p>The system must be running release 39.2 or greater.</p>	<p>If media software delivery (MSD): Insert target-release RMD in drive slot.</p> <p>If server software delivery (SSD): no RMD in drive slot.</p>
<p>2 <input type="checkbox"/></p>	<p>Issue the command to validate the Upgrade Software Access Key.³⁴</p>	<p>chg-upgrade-config:sak=XXXXXXXXXXXXX:src=ZZZZ (Where XXXXXXXXXXXXXXXX is the Software Access Key and zzzz is the disk that contains the upgrade target release <i>src=remove</i> if MSD or <i>src=fixed</i> if SSD)</p>
<p>3 <input type="checkbox"/> <input type="checkbox"/></p>	<p>Response to command is displayed.</p> <p>Verify the correct Upgrade target release is in the output.</p>	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y chg-upgrade-config:key=XXXXXXXXXXXXX:src=ZZZZ Command entered at terminal #6. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Upgrade target: EAGLE XX.x.x-YY.y.y ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Command Completed. ;</pre>

³⁴ If SAK unavailable, contact Tekelec Customer Care Center.

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 - IMT GPL processing.
;
ACT-UPGRADE: MASP A - GPL uploaded.
;
ACT-UPGRADE: MASP A - BPDCM 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. 35
;
Tables conversion started... 36
;
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.tb1: REBALANCING COMPLETED

```

³⁵ Line of output only displayed in Release 43.0 and later.

³⁶ Line of output only displayed in Release 43.0 and later.

```

;
; 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 Samples of message from convertstp action for act-upgrade command

The following are illustrative of the messages that may be seen on the console during Procedure 8, step 2 of the upgrade procedure if the cards exhibit the behavior of PR 112604 (no CSR #). It may be observed during the upgrade to Eagle release 35.1 until the new gpl versions are downloaded to the card. The upgrade continues unless the card is to remain inhibited. If the upgrade terminates verify if the card needs to be inhibited per the warning in section 5 and reissue the upgrade command.

```

Network Conversion: Inhibiting card 1201.
Network Conversion: Inhibiting card 1203.
;
Network Conversion: Inhibiting card 1201 (Retry).
Network Conversion: Inhibiting card 1203 (Retry).

```

```

;
Card Error: Card 1201 was not inhibited.
Card Error: Card 1203 was not inhibited.
;

Recovery Required: Manually inhibit card 1201
    
```

D.3 Determination and Recovery of DDL Hunt during Upgrade

NOTE: The following section should be completed with the assistance of Tekelec Customer Care Center.

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

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

```

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

Please note this appendix addresses DDL during Upgrade. Refer to external reference [2] 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 25 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  tk|c|set    REPT-LKF: not aligned
1240.0200    SLK 1201,A1                    RCVRY-LKF: link available
    
```

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

Table 25. Recovery from DDL Hunt by UAM.

UAM	Device	Condition	Recovery
0236 0200	SLK	Bouncing Link	A) Issue DDB checksum SEND-MSG per internal Ref. [18] B) Issue CANC-SLK to deactivate the affected link
0264 – 0269	SLK	Link Congestion	A) Issue DDB checksum SEND-MSG per internal Ref. [18] 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. [18] 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. [18] 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. [18] 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.

Appendix E. Customer Sign OFF

Sign-Off Record

*** Please review this entire document. ***

This is to certify that all steps required for the upgrade successfully completed without failure.

Sign your name, showing approval of this procedure, and fax this page and the above completed matrix to Tekelec, FAX # 919-460-3669.

Customer: Company Name: _____ Date: _____

Site: Location: _____

Customer: (Print) _____ Phone: _____

Fax: _____

Start Date: _____

Completion Date: _____

This procedure has been approved by the undersigned. Any deviations from this procedure must be approved by both Tekelec 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.

Tekelec Signature: _____ Date: _____

Customer Signature: _____ Date: _____

Appendix F. Accessing Tekelec's Customer Support Site

Access to Tekelec's Customer Support site is restricted to current Tekelec customers. This section describes how to log into the Tekelec Customer Support site and locate a document. Viewing the document requires Adobe Acrobat Reader, which can be downloaded at www.adobe.com.

1. Log into the Tekelec new Customer Support site at support.tekelec.com.
Note: If you have not registered for this new site, click the **Register Here** link. Have your customer number available. The response time for registration requests is 24 to 48 hours.
2. Click the **Product Support** tab.
3. Use the Search field to locate a document by its part number, release number, document name, or document type. The Search field accepts both full and partial entries.
4. Click a subject folder to browse through a list of related files.
5. To download a file to your location, right-click the file name and select **Save Target As**.