Global Product Solutions

System Healthcheck Procedure

EAGLE 5 ISS Releases 31.6 and later

⚠ **CAUTION: Use only the procedure included in your Upgrade Kit.**

Before upgrading your system, access Tekelec's Customer Support Site and review any Technical Service Bulletins (TSBs) that may be related to the System Health Check or the Upgrade.
Refer to Appendix B for instructions on accessing this site.

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

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CHANGE HISTORY

Date	ENG Version#	ECN Revision #	Author	Description	Approved *(Yes/No)
2/5/07	1.0	---	Robert Kress	New document	No
2/28/07	1.1	---	Robert Kress	Changes per peer review	Yes
3/9//07	1.2	A	Sutcliffe	Prepared for publication	Yes
10/15/07	1.3	---	Farrell	PRs 119787& 120397	No
10/18/07	2.0	---	Farrell	Updates after review	Yes
10/23/07	2.1	B	Sutcliffe	Prepared for publication	Yes
02/02/08	2.2	---	Aricent	TALI support removed from Release 38.0	No
09/02/08	2.3	---	Robert Kress	Document the Software Access Key	No
09/18/08	2.4	---	Robert Kress	Changes per peer review	No
09/29/08	2.5	---	Robert Kress	Changes per peer review	Yes
10/15/08	2.6, 2.7	C	Sutcliffe	Updated instructions on how to access the Customer Support site. Prepared for publication.	Yes
2/12/09	2.8		Robert Kress	PR 132578: 2-port obsolescence	No
3/3/09	2.9		Robert Kress	Changes per peer review	Yes
3/12/09	2.10	D	Griffiths	Prepared for Publication	Yes
3/16/09	2.11		Aricent-Manish Anand	PR 138574 and PR 138712: Modified for Fast Copy.	No
3/23/09	2.12		Aricent-Manish Anand	Updates after review.	No
3/27/09	2.13		Aricent-Manish Anand	PR 126704: Updated the clock status procedure as suggested by Phil.	No
4/06/09	2.14		Aricent-Manish Anand	Changes per formal review	Yes
4/07/09	2.15	E	Terri Boykin	Prepared for Publication	Yes
5/7/09	2.16		Robert Kress	PR140023: need to preflash E5-OAM before running target release GPL.	No
5/22/09	2.17		Aricent- Veenu Rani	Removed references to ESP-1A/ESP-1B IP Addresses and added note for E5-STC Card in Procedure 14.	No
6/15/09	2.18	F	Robert Kress	Changes per peer review	Yes
7/1/09	2.19		Robert Kress	Change for E5OAM	No
8/13/09	2.20		Robert Kress	Changes per peer review	Yes
8/20/09	2.21	G	Terri Boykin	Revision G. Prepared document for external publication.	
8/25/09	2.22		Dunkelberger	PR 135911: NPP SDWC PFX Enhancements	No
8/29/09	2.23		Dunkelberger	Updates	No
9/15/09	2.24		Robert Kress	PR 157613 : system time changed when booting into upgrade mode	No
9/30/09	2.25		Robert Kress	Changes per review	Yes
10/4/09	2.26		Terri Boykin	Edits for publication	No
10/5/09	2.27		Robert Kress	Edits for publication	No
10/6/09	2.28	H	Terri Boykin	Prepared for publication; backed out the step-number shading changes.	Yes
10/15/09	2.29		Robert Kress	PR 157613 update	Yes
10/16/09	2.30	H	Griffiths	Prepared for Publication	Yes
1/27/10	2.31	J	Griffiths	Correct revision; Prepared for Publication	Yes
3/17/10	2.32		Farrell	PR 162488, 162095, & 162983 and Task 81644	No
3/26/10	2.33		Farrell	Updates from review.	No
3/29/10	3.0		Farrell	Final updates for approval.	Yes
4/18/10	3.1	K	Farrell	Publication.	Yes
8/6/10	3.2		Farrell	PRs 164135 & 164448 for Eagle 42.0	No
8/25/10	3.3		Farrell	Updates from review & for publication	Yes
8/27/10	3.4	L	Farrell	Additional updates for publication	Yes.
9/27/10	3.5		Farrell	PR 169043: RamDisk issue booting MASPs	No
9/30/10	4.0	M	Farrell	Updates from review & for publication	Yes
10/10/10	4.1		Farrell	Publication	Yes
3/17/11	4.2		Farrell	PR 195561, 194973, & 197366.	No

4/5/11	4.3		Farrell	Updates from review comments.	No
4/6/11	5.0	N	Farrell	Publication	Yes
8/12/11	5.1		Farrell	PR 203699: Health Check doc modifications	No
8/18/11	5.2		Aricent-Nishesh Rai	PR 165005: Modified Health Check per Rel 44.0.	Yes
11/29/11	5.3		Farrell	PR 203699 & 208529	No
12/06/11	5.4		Farrell	Updates for review comments	No
12/08/11	6.0	O	Farrell	Preparation for Publishing.	Yes
4/24/12	7.0	P	Farrell	Updating for Publishing	Yes

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1. INTRODUCTION

1.1 Purpose and Scope

This document describes Tekelec's recommended methods and procedures to be used to evaluate Site and STP data retrieved from in-service EAGLE STP or any other Tekelec product using the EAGLE hardware platform. This document is intended for use for system running EAGLE release 31.6 or higher. The intended audience for this document is EAGLE® Engineering, Documentation, Customer Service personnel and any craft person who has completed EAGLE® training and is familiar with the EAGLE® interface. The scope of this document is specifically to collect data to determine the health of an in-service EAGLE prior to a software upgrade or an extension shelf installation. In general, this document may be used for an instance where the health determination of the EAGLE is required (i.e. troubleshooting).

The document is written to support all customer configurations. All of the commands specified in the procedures should be executed unless explicitly stated otherwise in the individual procedure. Not doing so may result in a delay in the analysis performed by Tekelec personnel.

Analysis of data captured during this procedure is out of the scope of this document. Analysis of the data is covered in reference [1].

1.2 References

[1] *Health Check Analysis Work Instruction*, WI005139, latest revision, Tekelec

1.3 Acronyms

Table 1. Acronyms

Acronym	Definition
ASM	Application Services Module
AST	Associate State for Maintenance
BITS	Building Integrated Timing System
DPC	Destination Point Code
DSM	Database Services Module
E5-OAM	Eagle 5 Operation, Admission, & Maintenance
E5-MASP	Dual-card HW assembly composed of E5-MCAP and E5-TDM
EUAT	EAGLE Upgrade Automation Tool
FOA	First Office Application
GPL	Generic Program Load
IMT	Interprocessor Message Transport
IS-ANR	In Service - Abnormal
IS-NR	In Service - Normal
KSR terminal	Keyboard Send Receive terminal
Legacy MASP	System using GPSM-II\TDM card set.
MASP	Maintenance and Administration Subsystem Processor
MCP	Measurements Collector/Poller
MO	Magneto Optical (removable disk cartridge)
PST	Primary State for Maintenance
SAK	Software Access Key
SCCP	Signaling Connection Control Part
UHC	Upgrade Health Check

2. GENERAL DESCRIPTION

The System Health Check may be performed on any EAGLE-platform-based STP by any qualified EAGLE® customer or Customer Care Center personnel. The health check is to be performed as directed by software release upgrade procedures or extension shelf installation MOPs. It may also be utilized during FOA, hardware installations, or customer problem analysis. This document outlines a series of commands and procedures to be performed on the switch. With each command, there is a description of the command, expected command output, and what problems may be detected with the command. If the desired goal/output is not obtained by executing the command, the Customer Care Center should be contacted to investigate the deficiencies. The entire set of commands should be executed each time in order to obtain a complete system status and configuration. Some of the commands may not be supported on all EAGLE releases, resulting in a command rejection. These rejected commands will not harm the system in any way and will be verified during the analysis of the captured data. The goal of this health check procedure is to be non-intrusive. Only spare equipment swap-out and the IMT bus testing are intrusive and should be executed during a maintenance window. The procedures that are intrusive are highlighted in the table in Section 2.3.

2.1 Recommendations for Performing Health Check

The commands in this document should be executed during periods of FOA, new software or hardware installations, upgrades, or customer problems.

2.1.1 Frequency of Health Check

The frequency of executing these commands should be determined in upgrade execution procedures, extension shelf installation MOP, and the release FOA plan/strategy developed by Tekelec. For software upgrade, three health checks are executed. The recommended time frames of these checks are the following: two weeks prior (UHC1), forty-eight hours prior (UHC2), and seventy-two hours following an upgrade (UHC3). For extension shelf, one health check is executed prior to installation. The exact time is based on availability of personnel and scheduled maintenance windows.

2.1.2 Data Capture

During the execution of this procedure, some method of data capture is necessary for proper analysis and for future reference. If a terminal emulation application is being used which supports capturing, the application should be enabled. A KSR or printer terminal may be selected as the capture terminal since output from the user terminal can be echoed to those terminal types. If no other method is available, input and output from the user terminal can be echoed to a configured printer. A capture file must be generated so a comparison can be made with other capture files from the same node to determine if any system degradation occurred between the two capture periods. Some of the procedures explicitly identify anomalies to be checked, if present, these occurrences should be noted. **After conclusion of the Health Check procedures the capture file and any notes are to be sent to Tekelec for review. If the Health Check is being performed in preparation for an upgrade, contact the Customer Care Center upon completion to verify that the upgrade can be performed after analysis of the capture file**

2.1.3 Step Check-Off and Recording Configuration

All steps in this Health Check are to be initialed by the person performing the step. Blanks have been provided under each step number for recording the initials. Also certain steps request recording of data, which is specific to the configuration of the switch being checked.

Note that the Health Check may take several hours to complete depending on the size of the system, the version of TDMs in use, and user experience. Estimated execution times of individual procedures are noted throughout the document.

2.2 Health Check Record

Each time the System Health Check has been completed, record the date, the reason for the health check (e.g., upgrade preparation, new installation, post-upgrade verification, etc.) and record which procedure passed/failed in Table 2.

Table 2. Health Check Record

DATE	Reason for running health check	List any procedures that failed (Procedure number and name)	Technician Signature
	Upgrade HC #1		
	Upgrade HC #2		
	Upgrade HC #3		
	Extension Shelf HC		

2.3 Health Check Type

The following table lists the procedures to be executed depending on the type of health check being performed.

Table 3. Health Check Type Procedures

Procedure	Non-Intrusive Upgrade (UHC1, UHC3)	Intrusive Upgrade (UHC2)	Extension Shelf, New Product
3.2 Health Check Preparation	√	√	√
3.3 General System Status	√	√	√
3.4 Report System Troubles	√	√	√
3.5 Verifying Database Status	√	√	n/a
3.6 Verifying GPLs	√	√	n/a
3.7 Retrieving Obituaries	√	√	√
3.8 Verifying STPLAN	√	√	n/a
3.9 Verify SCCP Load	√	√	n/a
3.10 Verifying LNP and LSMS	√	√	n/a
3.11 Verifying SEAS	√	√	n/a
3.12 Verifying optional features	√	√	√
3.13 Verifying IP Signaling Status	√	√	√
3.14 Verifying EROUTE	√	√	√
3.15 Verifying IMT Status	√	√	√
3.16 Retrieving Trouble Data	√	√	√
3.17 Verifying Clock Status	√	√	√
3.18 Verifying MPS (See note 1)	√	√	n/a
3.19 Verify Source Database and Enter Software Access Key	n/a	√	n/a
3.20 Verifying Fixed and Removable Media (Part 1)	n/a	√	n/a
3.21 Testing IMT Status	n/a	√	√
3.22 Verifying Fixed and Removable Media (Part 2)	n/a	√	n/a
3.23 Table Capacity Status	√	√	n/a
3.24 Verification of the IP database	√	√	n/a
Health Check Conclusion	√	√	√
Note 1: Intrusive procedures are shaded.			

3. PROCEDURES

3.1 Pre-Health Check Requirements

Procedure 1. Verifying Pre-Health Check Requirements

S T E P #	This procedure verifies that all pre-healthcheck requirements have been met. Check off (√) each step as it is completed. Boxes have been provided for this purpose under each step number. Should THIS PROCEDURE FAIL, Contact the Customer Care Center AND **ASK FOR <u>HEALTHCHECK ASSISTANCE</u>.** Estimated time for completion: 10 minutes
1 ☐	Complete Pre-Health Check tasks	All applicable tasks in Table 4 must be completed before continuing.

Table 4. Pre-Health Check Requirements

√	Tasks to be completed prior to Health Check execution
	For Health Check #2 - Verify that on-site personnel are available.
	For Health Check #2 – Verify that Upgrade media is on-site, or Upgrade target release has been downloaded to disk.
	Verify that all terminal and modem recourses are available for remote access.

3.2 Health Check Preparation

Procedure 2. Health Check Preparation

S T E P #	This procedure starts capturing all commands and command output to a printer or other terminal configured to capture data. See Section 2.1.2 for recommendation on data capture. Estimated time for completion: 10 minutes
1 ☐	Issue the command to log in to the EAGLE terminal.	`login:uid=XXXXXX` *(Where XXXXXX is your login ID)*

2 ☐	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 X`
		`;`

3 ☐	Issue the command to retrieve terminal status.	`rtrv-trm`

4 ☐ ☐	Response to retrieve terminal command is displayed. Record the numbers that appear in the TRM column below corresponding to the terminal port being used to capture, OAP terminals or SEAS terminals, and user terminal. In this example, terminal 12 is a printer, terminal 10 is the user's terminal, and terminal 1 is the OAP. Refer to Section 2.1.2 for information on how to set up terminals for data capture. CAPTURE _____ OAP\\SEAS _____ _____ USER _____ ☐ If not already activated, start mechanism to capture data. Refer to Section 2.1.2 for recommendation on data capture. ☐ Record the initial output group configuration for the user's and capture terminals. Also record user's TMOUT value ☐ Verify that all terminal groups for the printers show YES. If so, go to step 7. If any groups show 'NO', continue to step 5.	

```
    tekelecstp YY-MM-DD hh:mm:ss EST 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     NONE    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    VT320   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   TYPE    LOC            TMOUT MXINV DURAL      SECURE
    17    SEAS    1108           30    5     00:01:00   no
    18    TELNET  1108           30    5     00:01:00   no
    19    TELNET  1108           30    5     00:01:00   no
    20    TELNET  1108           30    5     00:01:00   no
    21    TELNET  1108           30    5     00:01:00   no
    22    TELNET  1108           30    5     00:01:00   no
    23    TELNET  1108           30    5     00:01:00   no
    24    TELNET  1108           30    5     00:01:00   no

    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 NO  NO
    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
    17   NO   NO   NO  NO  NO  NO
    18   NO   NO   NO  NO  NO  NO
    19   NO   NO   NO  NO  NO  NO
    20   NO   NO   NO  NO  NO  NO
    21   NO   NO   NO  NO  NO  NO
    22   NO   NO   NO  NO  NO  NO
    23   NO   NO   NO  NO  NO  NO
    24   NO   NO   NO  NO  NO  NO
;
    USER   ___  ___  ___ ___ ___ ___ ___ ___ ___ ___

           TMOUT  _____

    CAP    ___  ___  ___ ___ ___ ___ ___ ___ ___ ___
```

Procedure 2. Health Check Preparation

5 ☐	Issue the command to change all terminal groups.	`chg-trm:trm=P:all=yes` *(where P is the location of the capture terminal recorded in step 4)*
6 ☐	Response to change terminal command is displayed.	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y chg-trm:trm=P:all=yes Command entered at terminal #X.; tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CHG-TRM: MASP A – COMPLTD;```
7 ☐	Issue the command to activate capture.	`act-echo:trm=P` *(where P is a capture terminal port that was selected in step 4)*
8 ☐ ☐	Response to activate command is displayed. Verify that the capture terminal is correctly collecting data.	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y Scroll Area Output will be echoed to Terminal X.;``` *(***Caution***: loss of output may occur if too many terminals are echoed)*
9 ☐	If all terminal groups for the user terminal are not set to "NO" and method for capturing output is enabled, issue the command to change all terminal groups to "NO."	`chg-trm:trm=X:all=no:tmout=0:sa=yes:sys=yes:db=yes:card=yes` *(where X is the location of the user's terminal recorded in step 4.)*
10 ☐	Response to change terminal command is displayed.	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y chg-trm:trm=X:all=no Command entered at terminal #X.; tekelecstp 98-03-09 03:01:11 EST Rel XX.X.X-YY.Y.Y CHG-TRM: MASP A – COMPLTD;```
11 ☐	Issue the command to display optional features	`rtrv-feat`
12 ☐ ☐	Response to retrieve feature command is displayed. Record the on/off status of the features in the following table.	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y EAGLE FEATURE LIST GTT = on GWS = on NRT = off X25G = off LAN = on CRMD = off SEAS = off LFS = off MTPRS = off FAN = on DSTN5000 = off WNP = off CNCF = off TLNP = off SCCPCNV = off TCAPCNV = off IPISUP = off X252000 = off PLNP = off NCR = off ITUMTPRS = on SLSOCB = off EGTT = on VGTT = on MPC = on ITUDUPPC = on MEASPLAT = on TSCSYNC = off E5IS = off;```

Note: The following table lists all possible feature bits. Feature bits differ between releases, so one may appear in this table that will not exist on a particular EAGLE.

GTT	ON / OFF	**GWS**	ON / OFF	**NRT**	ON / OFF
X25G	ON / OFF	**LAN**	ON / OFF	**CRMD**	ON / OFF
SEAS	ON / OFF	**LFS**	ON / OFF	**MTPRS**	ON / OFF
FAN	ON / OFF	**DSTN5000**	ON / OFF	**WNP**	ON / OFF
CNCF	ON / OFF	**TLNP**	ON / OFF	**SCCPCNV**	ON / OFF
TCAPCNV	ON / OFF	**IPISUP**	ON / OFF	**DYNRTK**	ON / OFF
X252000	ON / OFF	**INP**	ON / OFF	**PLNP**	ON / OFF
NCR	ON / OFF	**ITUMTPRS**	ON / OFF	**SLSOCB**	ON / OFF
EGTT	ON / OFF	**VGTT**	ON / OFF	**MGTT**	ON / OFF
MPC	ON / OFF	**ITUDUPPC**	ON / OFF	**GFLEX**	ON / OFF
GSMSCRN	ON / OFF	**GPORT**	ON / OFF	**MEASPLAT**	ON / OFF
TSCSYNC	ON / OFF	**E5IS**	ON / OFF		

Procedure 2. Health Check Preparation

13 ☐	Issue the command to display feature keys that have been enabled.	`rtrv-ctrl-feat`

14 ☐
☐
 	
☐
	Response to the command is displayed.
	
	Record if LNP ported TN feature key and LNP ELAP Configuration is on and displayed as well as the current quantity[1]. Also record whether the EIR feature is on:
	
	LNP ported TN: __ON / OFF__
	Quantity: _____
	LNP ELAP Config: ON/OFF
	EIR: ON/OFF
	
	Record if TPS feature key Configuration is on and displayed as well as the current quantity. Also record whether any temporary TPS keys are displayed as enabled. Verify no temporary TPS keys are enabled.
	
	TPS Status: ___ON / OFF___
	Quantity: _____
	Temporary TPS Enabled:
	          YES/NO
		<pre> rtrv-ctrl-feat
		    Command entered at terminal #X.
		;
		
		    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
		    The following features have been permanently enabled:
		    Feature Name Partnum Status Quantity
		    TPS 893000101 on 100
		    EAGLE Product 893007201 on ----
		    LNP ELAP Configuration 893010901 on ----
		    LNP ported TNs 893011012 on 96000000
		    EIR 893012301 on ----
		
		    The following features have been temporarily enabled:
		
		    Feature Name Partnum Status Quantity Trial Period
		    Zero entries found.
		
		    The following features have expired temporary keys:
		
		    Feature Name Partnum
		    Zero entries found.</pre>

15 ☐	Issue the command to retrieve serial number for this node.	`rtrv-serial-num`

16 ☐	Response to retrieve command is displayed.	<pre> tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
		    System serial number = nt00001659
		
		    System serial number is locked.
		;</pre>

17 ☐	All steps in this procedure were completed.	

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[1] If feature access key outputs "off" for status or does not appear in output the feature is OFF.

3.3 General System Status

Procedure 3: Determining General System Status

S T E P #	This procedure examines the general status of all cards in the system by reporting card and system status. Look for unexplained alarms, or other entities listed as 'other'. Any system entities listed as 'other' should be documented, investigated, and explained. Look for unexplained card PST and SST states (i.e. not IS-NR/Active). **Estimated time for completion: 30 minutes**

1 ☐	Issue the command to display IMT errors.	`rept-imt-lvl1:r=summary:sloc=1201:eloc=1115`
2 ☐ ☐	Response to IMT report command is displayed. If UHC2 is being executed, verify that large values are not displayed in any highlighted columns.	```tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
==
SUMMARY REPORT: Totals accumulated from all requested cards

Count   Bus A Value   Bus B Value
-----   -----------   -----------
Transmit Packet   0M   0M
Transmit Byte   0M   0M
Receive Packet   0M   0M
Receive Byte   0M   0M
Receive Packet with CRC Error   0   0
Receive Packet with Format Error   0   0
Receive Packet with Invalid Length   0   0
Primary Control Receive Error   0   0
Primary Control Transmit Error   0   0
Primary Control Sanity Error   0   0
Violation Error   0   0
CPU Receive FIFO Full   0   0
IMT Receive FIFO Half Full   0   0
CPU Receive FIFO Half Full   0   0
DMA Terminal Count Interrupt   0   0
MSU Retransmitted   0   0
MSU Safety Packet   0   0
ASU Safety Packet   0   0
TSU Safety Packet   0   0
IMT Receive FIFO Full   0   0
SSU Safety Packet   0   0

;END OF REPORT
;``` |
| 3 ☐ | Issue the status command for the MUX cards. | `rept-stat-mux` |
| 4 ☐ ☐ ☐ | Response to MUX status command is displayed.

Verify that all cards are IS-NR.

Record the types of MUX cards displayed (circle all that are applicable):

HMUX   HIPR   HIPR2 | ```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   HMUX   IS-NR   Active   -----
1210   HMUX   IS-NR   Active   -----
1309   HIPR   IS-NR   Active   -----
1310   HIPR   IS-NR   Active   -----
2109   HIPR2   IS-NR   Active   -----
2110   HIPR2   IS-NR   Active   -----

Command Completed.
;``` |
| 5 ☐ | Issue the report IMT information command.

Repeat for all MUX types recorded in Step 4. | `rept-imt-info:report=`*XXXX*`err`

(where report=hmuxerr if HMUX cards were detected in step 4;
       report=hiprerr if HIPR cards were detected in step 4;
       report=hipr2err is HIPR2 cards were detected in step 4.) |
| 6 ☐ | Response to report IMT information command is displayed.

Note: Output abridged for brevity, Actual output varies | ```tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
XXXX Summary Report: Summed across all requested cards for each bucket

XXXX Hourly Bucket Statistics

==
Bucket Low Speed Statistic   BUS A Value   BUS B Value
------ -------------------   -----------   -----------
XX   IMT Rx Packet CRC Error   0   0``` |

Procedure 3: Determining General System Status

| | based on software release and card type. | ```
IMT Rx Packet Format Error          0           0
IMT Rx Violation Error               0           0
IMT Rx Command Error                 0           0
IMT Rx FIFO Full                     0           0
IMT Rx FIFO Half Full                0           0
IMT Tx FIFO Full                     0           0
IMT Tx FIFO Half Full                1           0

High Speed Statistic        BUS A Value  BUS B Value
--------------------        -----------  -----------
IMT Rx Packet CRC Error              0           0
IMT Rx Disparity Error               0           0
IMT Rx Sync Lost Error               0           0
IMT Rx Code Word Error               0           0
CPU Rx FIFO Full                     0           0
CPU Rx FIFO Half Full                0           0
CPU Rx FIFO Empty Before SOM         0           0
CPU Rx FIFO Empty Before EOM         0           0
CPU Rx Packet SOM Before EOM         0           0
CPU Rx Packet CRC Error              0           0
DMA terminal count                   0           0
CPU Tx Buffer EOB                    0           0
CPU Tx Buffer Full                   0           0
CPU Tx Buffer Half Full              9           9
IMT Bypass FIFO Full                 0           0
IMT Bypass FIFO Half Full            0           0
IMT Rx FIFO Full                     0           0
IMT Rx FIFO Half Full                0           0

Misc Speed Statistic        BUS A Value  BUS B Value
--------------------        -----------  -----------
Shelf ID UART Framing Error          0           0
Shelf ID UART Overrun Error          0           0

;
``` |
| **7** ☐ | Issue the command to clear IMT errors. | ```
clr-imt-stats:all=yes
``` |
| **8** ☐ | Response to clear IMT stats command is displayed. | ```
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    clr-imt-stats:all=yes
    Command entered at terminal #X.
;
    Tekelecstp 98-03-09 14:09:41 EST Rel XX.X.X-x.x.x
    Clear IMT Statistics command(s) issued...
;
``` |
| **9** ☐ | Issue the command to report system status. | ```
rept-stat-sys
``` |
| **10** ☐ ☐ ☐ ☐ ☐ | Response to system status command is displayed.<br><br>Record the Software Release: REL. _____<br><br>Record any card types that are not IS-NR.<br><br>Investigate and record cards whose status cannot be explained.<br>Card Type: _____<br>Card Type: _____<br><br>Record the number of IS-NR SS7IPGW and IPGWI cards. Verify the IP System is not deploying both SS7IPGW and IPGWI Cards by ensuring either SS7IPGW or IPGWI has 0 cards IS-NR.<br><br>SS7IPGW Cards: _____<br>IPGWI Cards: _____ | ```
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-x.x.x
    MAINTENANCE STATUS REPORT
      Maintenance Baseline established.
      Routing Baseline established.
      SCCP Baseline established.
      ALARMS:      CRIT=    0    MAJR=   X    MINR=  X    INH=     0
      OAM 1113     IS-NR         Standby                 INH=     0
      OAM 1115     IS-NR         Active                  INH=     0
      LIM  CARD    IS-NR=   X    Other=      X           INH=     0
      X25  CARD    IS-NR=   X    Other=      X           INH=     0
      SCCP CARD    IS-NR=   X    Other=      X           INH=     0
      GLS  CARD    IS-NR=   X    Other=      X           INH=     0
      SLAN CARD    IS-NR=   X    Other=      X           INH=     0
      SS7IPGW CARD IS-NR=   X    Other=      X           INH=     0
      IPGWI   CARD IS-NR=   X    Other=      X           INH=     0
      CLOCK        IS-NR=   X    Other=      X           INH=     0
      IMT          IS-NR=   X    Other=      X
      SLK          IS-NR=  XX    Other=      X           INH=     0
      DLK          IS-NR=   X    Other=      X           INH=     0
      LINK SET     IS-NR=  XX    Other=      X           INH=     0
      SS7 DPC      IS-NR=  XX    Other=      X
      X25 DPC      IS-NR=   X    Other=      X
      CLUST DPC    IS-NR=   X    Other=      X
      XLIST DPC    IS-NR=   X    Other=      X
      DPC  SS      Actv =   X    Other=      X
      SEAS SS      IS-NR=   X    Other=      X
      SEAS  X25    IS-NR=   X    Other=      X           INH=     0
      LSMS SS      IS-NR=   X    Other=      X
      LSMS  Q.3    IS-NR=   X    Other=      X           INH=     0
      TERMINAL     IS-NR=   X    Other=     XX           INH=     0
    Command Completed.
;
``` |

Procedure 3: Determining General System Status

11 ☐	Issue the command to report signaling link status.	```rept-stat-slk```
| **12** ☐ | Response to report signaling links status command is displayed. | ```
tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.X.X-x.x.x
SLK      LSN        CLLI        PST        SST      AST
1201,A   ls1        ----------- IS-NR      Avail    -----
1201,B   ls4        ----------- OOS-MT     Unavail  -----
1202,A   ls1        ----------- IS-NR      Avail    -----
1202,B   ls1        ----------- IS-NR      Avail    -----
1203,A   ls1        ----------- IS-NR      Avail    -----
1203,B   ls2        ----------- IS-NR      Avail    -----
1204,A   ls4        ----------- IS-NR      Avail    -----
1204,B   ls3        ----------- IS-NR      Avail    -----
1205,A   ls5        ----------- IS-NR      Avail    -----
1205,A1  ls5        ----------- IS-NR      Avail    -----
1205,A2  ls5        ----------- IS-NR      Avail    -----
1205,A3  ls5        ----------- IS-NR      Avail    -----
1205,B3  ls5        ----------- IS-NR      Avail    -----
1206,A   ls6        ----------- IS-NR      Avail    -----
1206,B   ls6        ----------- IS-NR      Avail    -----
1207,A   ls7        ----------- IS-NR      Avail    -----
1207,B   ls7        ----------- IS-NR      Avail    -----
1211,A   ls11       ----------- IS-NR      Avail    -----
1211,B   ls11       ----------- IS-NR      Avail    -----
1301,A   ls1301i0   ----------- IS-NR      Avail    -----
1301,B   ls1301i0   ----------- IS-NR      Avail    -----
1302,A   ls1302i0   ----------- IS-NR      Avail    -----
1302,B   ls1302i0   ----------- IS-NR      Avail    -----
1303,A   ls1303i0   ----------- IS-NR      Avail    -----
1303,B   ls1303i0   ----------- IS-NR      Avail    -----
1304,A   ls1304i0   ----------- IS-NR      Avail    -----
1304,B   ls1304i0   ----------- IS-NR      Avail    -----
1311,A   ls1311i0   ----------- IS-NR      Avail    -----
1311,B   ls1311i0   ----------- IS-NR      Avail    -----
1311,A1  ls1311i0   ----------- IS-NR      Avail    -----
1311,B1  ls1311i0   ----------- IS-NR      Avail    -----

Command Completed.
;
``` |
| **13** ☐ | Issue the command to retrieve card provisioning. | ```rtrv-card``` |

Procedure 3: Determining General System Status

| 14 ☐ | Response to retrieve command is displayed. | <pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
CARD   TYPE   APPL   LSET NAME   LINK SLC LSET NAME   LINK SLC
1101   ENET   IPSG   stpa220a   A   0   sc4a224a   B   0
                        sc1a221a   A1   0   sc5a225a   B1   0
                        sc2a222a   A2   0   sc6a226a   B2   0
                        sc3a223a   A3   0   sc7a227a   B3   0
                        stpa027i   A4   0   sp1a028i   B4   0
                        sc1a028i   A5   0   sp2a029i   B5   0
                        sc2a029i   A6   0   sp3a030i   B6   0
                        sc3a030i   A7   0   sp4a031i   B7   0
1102   TSM   GLS
1103   DSM   VSCCP
1105   ENET   IPSG   stpa220a   A   1   sc4a224a   B   1
                        sc1a221a   A1   1   sc5a225a   B1   1
                        sc2a222a   A2   1   sc6a226a   B2   1
                        sc3a223a   A3   1   sc7a227a   B3   1
                        stpa027n   A4   1   sp1a028n   B4   1
1106   LIME1   CCS7ITU sc6a033i   A   0
1107   DCM   IPGWI   sc5a032i   A   1
1108   MCPM   MCP
1111   ENET   IPSG   lg1111a00   A   0   lg1111i01   A1   0
                        lg1111n02   A2   0
1112   ENET   IPSG   lg1111a00   A   1   lg1111i01   A1   1
                        lg1111n02   A2   1
1113   E5-MCAP OAM
1114   TDM-A
1115   E5-MCAP OAM
1116   TDM-B
1117   MDAL
1201   ENET   IPSG   stpa220a   A   3   sc4a224a   B   3
                        sc1a221a   A1   3   sc5a225a   B1   3
                        sc2a222a   A2   3   sc6a226a   B2   3
                        sc3a223a   A3   3   sc7a227a   B3   3
                        stpa027i   A4   3   sp1a028i   B4   3
                        sc1a028i   A5   3   sp2a029i   B5   3
                        sc2a029i   A6   3   sp3a030i   B6   3
                        sc3a030i   A7   3   sp4a031i   B7   3
                        stpa027n   A8   3   sp1a028n   B8   3
                        sc1a028n   A9   3   sp2a029n   B9   3
                        sc2a029n   A10 3   sp3a030n   B10 3
                        sc3a030n   A11 3   sp4a031n   B11 3
1202   DCM   STPLAN
1203   LIMT1   SS7ANSI ls3307a00   A   0   ls3307a04   B   0
                        ls3307a00   A1   1   ls3307a04   B1   1
                        ls3307a00   A2   2   ls3307a04   B2   2
                        ls3307a00   A3   3   ls3307a04   B3   3
                        ls3307a08   A4   0   ls3307a12   B4   0
                        ls3307a08   A5   1   ls3307a12   B5   1
                        ls3307a08   A6   2   ls3307a12   B6   2
                        ls3307a08   A7   3   ls3307a12   B7   3
                        ls3307a16   A8   0   ls3307a20   B8   0
                        ls3307a16   A9   1   ls3307a20   B9   1
                        ls3307a16   A10 2   ls3307a20   B10 2
                        ls3307a16   A11 3   ls3307a20   B11 3
                        ls3307a24   A12 0   ls3307a28   B12 0
                        ls3307a24   A13 1   ls3307a28   B13 1
                        ls3307a24   A14 2   ls3307a28   B14 2
                        ls3307a24   A15 3   ls3307a28   B15 3
1205   DCM   IPLIMI   sc4a031i   A   0   sc4a031n   B   0
                        sc4a031i   A1   1   sc4a031n   B1   1
1206   DCM   IPLIMI   sc4a031i   A   8   sc4a031n   B   8
                        sc4a031i   A1   9   sc4a031n   B1   9
1207   LIMATM ATMANSI sc8a228a   A   1   sc9a229a   B   1
1208   ENET   IPSG   lg2305a00   A   7   gr2305i01   A1   7
                        gr2305n02   A2   7
1211   ENET   IPSG   stpa220a   A   4   sc4a224a   B   4
1212   MCPM   MCP
1213   LIME1   CCS7ITU ls1213i00   A   0   lr1213i04   B   0
                        ls1213i01   A1   0   lr1213i05   B1   0
1215   ENET   IPSG   lg1111a00   A   2   lg1111i01   A1   2
                        lg1111n02   A2   2
1216   ENET   IPSG   lg1111a00   A   3   lg1111i01   A1   3
                        lg1111n02   A2   3
1217   DSM   VSCCP
;</pre> |
| 15 ☐ | Issue the command to report card status. | **rept-stat-card** |

Procedure 3: Determining General System Status

| 16 | Response to card status command is displayed.<br><br>Look for the slot ID of any IS-ANR or OOS-MT status cards. Ensure that any cards in this state can be explained.<br><br>Record the card locations of the MASPs:<br><br>Active MASP _____<br>Standby MASP _____ | ```
tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
CARD   VERSION      TYPE     APPL      PST           SST        AST
1101   022-115-000  LIMV35   SS7ANSI   IS-NR         Active     -----
1102   022-115-000  LIMV35   SS7ANSI   IS-NR         Active     -----
1103   022-115-000  LIMV35   SS7ANSI   IS-NR         Active     -----
1104   022-115-000  LIMDS0   SS7ANSI   IS-NR         Active     -----
1105   022-115-000  MCPM     MCP       IS-NR         Active     -----
1106   022-115-000  LIMDS0   SS7ANSI   IS-NR         Active     -----
1107   022-111-000  ACMENET  STPLAN    IS-ANR        Active     -----
1108   022-115-000  ASM      SCCP      IS-NR         Active     -----
1111   -----------  ASM      SCCP      OOS-MT        Isolated   -----
1112   022-111-000  ASM      GLS       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   022-115-000  DCM      IPLIM     IS-NR         Active     -----
Command Completed.
;
``` |
|---|---|---|
| 17 | Issue the command to report card status. | ```
rept-stat-card:loc=XXXX:mode=full
(where XXXX is the slot ID of any card that is IS-ANR or OOS-MT in step 16)
``` |
| 18 | Response to card status command is displayed. | ```
tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
CARD   VERSION      TYPE     APPL      PST           SST        AST
XXXX   -----------  LIMDS0   SS7ANSI   OOS-MT        Isolated   ----
  ALARM STATUS       = **  0013 Card is isolated from the system
         GPL version = -----------
  IMT BUS A          = -----
  IMT BUS B          = -----
  CLOCK A            = ----
  CLOCK B            = ----
  CLOCK I            = ----
  MBD BIP STATUS     = ----
  DB STATUS          = ----
  DBD MEMORY SIZE    = ----
  HW VERIFICATION CODE = ----
  SLK A    PST       = OOS-MT          LS=e3e4        CLLI=-----------
  SLK B    PST       = OOS-MT          LS=e3e4        CLLI=-----------
  SNM   TVG RESULT = 24 hr: ------, 5 min: ------
  SLAN  TVG RESULT = 24 hr: ------, 5 min: ------
  SCCP  TVG RESULT = 24 hr: ------, 5 min: ------
  EROUTE TVG RESULT = 24 hr: ------, 5 min: ------
  SENTINEL SOCKET A  = INACTIVE
Command Completed.
;
``` |
| 19 | Repeat steps 17 – 18 for all cards that were IS-ANR or OOS-MT in step 16. | |
| 20 | Issue the command to display the version of the GPLs running on the system. | ```
rept-stat-gpl:display=all
``` |

Procedure 3: Determining General System Status

21 ☐	Response to GPL status command.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
		GPL Auditing ON
		
		GPL CARD RUNNING APPROVED TRIAL
		EOAM 1113 128-001-011 128-001-011 128-001-011 *
		            BPDCM 128-001-000 128-001-000 128-001-000
		EOAM 1115 128-001-011 128-001-011 128-001-011 *
		            BPDCM 128-001-000 128-001-000 128-001-000
		SS7ANSI 1201 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		SS7ANSI 1202 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		SS7ANSI 1203 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		SS7ANSI 1204 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		SS7ANSI 1211 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		SCCP 1111 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		GLS 1213 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		GLS 1214 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		CCS7ITU 1301 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		CCS7ITU 1302 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		CCS7ITU 1303 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		CCS7ITU 1304 128-001-011 128-001-011 128-001-011
		            IMT 128-001-011 128-001-011 128-001-011
		VSCCP 1107 128-001-011 128-001-011 128-001-011
		            BPDCM 128-001-000 128-001-000 128-001-000
		SS7ML 1205 128-001-011 128-001-011 128-001-011
		            BPMPL 128-001-000 128-001-000 128-001-000
		SS7ML 1206 128-001-011 128-001-011 128-001-011
		            BPMPLT 128-001-000 128-001-000 128-001-000
		SS7ML 1207 128-001-011 128-001-011 128-001-011
		            BPMPLT 128-001-000 128-001-000 128-001-000
		BPHMUX 1109 128-001-000 128-001-000 128-001-000
		BPHMUX 1110 128-001-000 128-001-000 128-001-000
		BPHMUX 1209 128-001-000 128-001-000 128-001-000
		BPHMUX 1210 128-001-000 128-001-000 128-001-000
		HIPR 1309 128-001-000 128-001-000 128-001-000
		HIPR 1310 128-001-000 128-001-000 128-001-000
		
		Command Completed.
		;</pre>

22 ☐	Issue the command to retrieve the shelves	**rtrv-shlf**

23 ☐	Response to retrieve shelf command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
		SHELF DISPLAY
		FRAME SHELF TYPE
		  1 1 CONTROL
		  1 2 EXTENSION
		;</pre>

24 ☐	Issue the command to retrieve STP.	**rtrv-stp**

25 ☐	Response to retrieve STP command is displayed.
	
	Note: output abridged for brevity. This output displays information for one frame only.
		<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
		
		Card Part Number Rev Serial Number Type DB GPL GPL Version
		---- ----------- --- ------------- ---- -- --- -----------
		1101 Empty
		1102 Empty
		1103 870-2372-01 G 10203132609 DCM - IPGWI 126-016-000
		1104 870-2372-01 H 10203132844 DCM - IPGWI 126-016-000
		1105 Empty MCPM MCP
		1106 Empty MCPM MCP
		1107 870-2372-01 D 10201322602 DCM - IPGWI 126-016-000
		1108 870-2371-03 J 10201323015 IPSM 1024M IPS 126-016-000
		1109 MUX HIPR 126-011-000
		1110 MUX HIPR 126-011-000
		1111 870-1984-05 M 10200405077 DSM 4096M VSCCP 126-016-000
		1112 Empty
		1113 870-2360-01 J 10202302488 GPSM 1024M EOAM 126-016-000
		1114 TDM
		1115 870-2360-01 E 10202302462 GPSM 1024M EOAM 126-016-000
		1116 TDM
		1117 MDAL
		1118 Empty
		
		1201 870-2671-01 T 10206235541 LIME1 512M CCS7ITU 126-016-000</pre>

Procedure 3: Determining General System Status

```
        1202   Empty
        1203   870-2198-01  J   10202382039    LIME1    -    CCS7ITU  126-016-000
        1204   870-2198-01  L   10202442005    LIME1    -    CCS7ITU  126-016-000
        1205   870-2198-01  C   10201322801    LIME1    -    CCS7ITU  126-016-000
        1206   870-2198-01  M   10203282183    LIME1    -    CCS7ITU  126-016-000
        1207   870-2198-01  C   10201322679    LIME1    -    CCS7ITU  126-016-000
        1208   870-2198-01  D   10201383680    LIME1    -    CCS7ITU  126-016-000
        1209   MUX                                            HIPR     126-011-000
        1210   MUX                                            HIPR     126-011-000
        1211   Empty
        1212   870-2198-01  C   10201322686    LIME1    -    SS7ANSI  126-016-000
        1213   Empty
        1214   870-2198-01  D   10201383719    LIME1    -    SS7ANSI  126-016-000
        1215   870-2198-01  M   10203282159    LIME1    -    SS7ANSI  126-016-000
        1216   870-2198-01  C   10201322660    LIMT1    -    SS7ANSI  126-016-000
        1217   Empty
        1218   Empty

        1301   870-2671-01  P   10204395614    LIME1   512M  CCS7ITU  126-016-000
        1302   Empty
        1303   Empty
        1304   870-2198-01  M   10203282235    LIME1    -    CCS7ITU  126-016-000
        1305   870-2372-01  H   10203132575    DCM      -    IPGWI    126-016-000
        1306   Empty                           DCM           IPGWI
        1307   870-2372-01  J   10203292342    DCM      -    IPGWI    126-016-000
        1308   870-2372-01  H   10203132875    DCM      -    IPGWI    126-016-000
        1309   MUX                                            HIPR     126-011-000
        1310   MUX                                            HIPR     126-011-000
        1311   870-2372-01  C   10201322577    DCM      -    IPLIMI   126-016-000
        1312   Empty
        1313   Empty
        1314   870-2198-01  C   10201322627    LIME1    -    CCS7ITU  126-016-000
        1315   870-2372-01  J   10203292389    DCM      -    IPGWI    126-016-000
        1316   870-2372-01  E   10202102361    DCM      -    IPGWI    126-016-000
        1317   870-2372-01  J   10203342899    DCM      -    IPGWI    126-016-000
        1318   870-2372-01  E   10202102343    DCM      -    IPGWI    126-016-000

        Command Completed.
    ;
```

26 ☐	Issue the command to retrieve event log.	`rtrv-log:dir=bkwd:num=100:mode=full:edate=`*yymmdd*`:type=alarm:slog=act` *(where yymmdd is yesterday's date.)*

27 ☐
 	
☐
	Response to retrieve log command is displayed.
	
	If report terminates without the "end of log reached" displayed, continue to next step. Otherwise, go to step 30.
		`tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y`
		`Card 1115; SYS REL= XX.x.x-YY.y.y; STP CLLI=   tekelecstp; Timezone= EST`
		
		`****06-05-12  04:57:00****`
		`6364.0005    GPL SYSTEM BLBEPM       Alarm cleared running non-activated GPL`
		`****06-05-12  04:54:00****`
		`6362.0004  * GPL SYSTEM BLBEPM       Card is running non-activated GPL`
		`****06-05-12  04:54:00****`
		`6361.0003    GPL SYSTEM BLBEPM       Alarm cleared for GPL`
		`****06-05-12  04:52:28****`
		`6360.0014    CARD 1101 SS7EPM        Card is present`
		`             ASSY SN:  061050018`
		`****06-06-07  17:11:09****`
		`5001.0009    CARD 1115 EOAM          MASP became active`
		`UAM Report terminated - end of log reached`
		`END OF LOG REPORT.`
		`;`

28 ☐	Issue the command to retrieve the next set of events.	`rtrv-log:next=500`

29 ☐
 	
☐
	Response to retrieve log command is displayed.
	
	If report terminates without the "end of log reached" display, the command can be repeated.[2]
		`tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y`
		`Card 1115; SYS REL= XX.x.x-YY.y.y; STP CLLI=   tekelecstp; Timezone= EST`
		
		`****06-05-12  04:57:00****`
		`6364.0005    GPL SYSTEM BLBEPM       Alarm cleared running non-activated GPL`
		`****06-05-12  04:54:00****`
		`6362.0004  * GPL SYSTEM BLBEPM       Card is running non-activated GPL`
		`****06-05-12  04:54:00****`
		`6361.0003    GPL SYSTEM BLBEPM       Alarm cleared for GPL`
		`****06-05-12  04:52:28****`
		`6360.0014    CARD 1101 SS7EPM        Card is present`
		`             ASSY SN:  061050018`
		`****06-06-07  17:11:09****`
		`5001.0009    CARD 1115 EOAM          MASP became active`
		`UAM Report terminated - end of log reached`
		`END OF LOG REPORT.`
		`;`

---

[2] The amount of alarms and UIMs during a 24-period can vary greatly depending on the size and how tightly configured and controlled the system is. Retrieving additional log enters may be beneficial.

Procedure 3: Determining General System Status

30 ☐	Issue the command to retrieve the log for the standby. Repeat steps 28 – 29 until the "end of log reached" message displays.	`rtrv-log:dir=bkwd:num=100:mode=full:edate=yymmdd:type=alarm:slog=stb` *(where yymmdd is yesterday's date.)*
31 ☐	Issue the retrieve log command for the UIM log types. Repeat steps 28 – 29 until the "end of log reached" message displays.	`rtrv-log:dir=bkwd:num=100:mode=full:edate=yymmdd:type=uim:slog=act` *(where yymmdd is yesterday's date.)*
32 ☐	If release is 35.0 or higher, issue the command to retrieve the STP power level.	`rtrv-stp:display=power`
33 ☐ ☐	Response to retrieve power frame command is displayed. Note any of the power threshold numbers prefixed with a "+" sign.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y

         Power Threshold   Power Consumption
Frame   (Amps)   (Watts)   (Amps)   (Watts)
-----   ---------------   ---------------
CF00   45   2160   37.71   1810
EF00   40   1920   33.99   1631
EF01   35   1680   10.00   480
EF04   +30   +1440   14.06   675

Command Completed.
;</pre> |
| 34 ☐ | If release is 34.0 or higher, issue the command to retrieve the threshold alarm levels. | `rtrv-th-alm` |
| 35 ☐ | Response to retrieve threshold alarm command is displayed. | <pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
Thermal Alarm Level 1:   92%
Thermal Alarm Level 2:   100%
SCCP TPS Threshold: 80%
SCCP Calculation Method: N
LNP TN DB Alarm Level 1:   80%
LNP TN DB Alarm Level 2:   95%
GTT SCCP Service Alarm Level 1:   10%
GTT SCCP Service Alarm Level 2:   20%
Non-GTT SCCP Service Alarm Level 1: 10%
Non-GTT SCCP Service Alarm Level 2: 20%
RTRV-TH-ALM: MASP B - COMPLTD.
;</pre> |
| 36 ☐ | Issue the command to retrieve the site ID. | `rtrv-sid` |
| 37 ☐ | Response to retrieve command is displayed. | <pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
   PCA   PCI   PCN   CLLI   PCTYPE
   200-080-200   7-080-7   7-080-7-aa   tklc9051301   ANSI
                    s-7-080-7   s-7-080-7-aa

   CPCA
   200-081-000

   CPCI (INP)
   7-082-0   s-7-082-0

   CPCN (INP)
   7-082-0-aa   7-082-0-bc   s-7-082-0-aa   s-7-082-0-bc

   CPCA (GFLEX)
   200-085-000

   CPCI (GFLEX)
   7-085-0   s-7-085-0

   CPCN (GFLEX)
   7-085-0-aa   7-085-0-bc   s-7-085-0-aa   s-7-085-0-bc

   CPCA (MNP)
   200-086-000

   CPCI (MNP)
   7-086-0   s-7-086-0

   CPCN (MNP)
   7-086-0-aa   7-086-0-bc   s-7-086-0-aa   s-7-086-0-bc
;</pre> |

Procedure 3: Determining General System Status

38	Issue the command to retrieve SCTP associations.	`rtrv-assoc`

39	The response to the retrieve command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
		                    CARD IPLNK
		ANAME LOC PORT LINK ADAPTER LPORT RPORT OPEN ALW
		iplma1103a2m2pa 1103 B A2 M2PA 2175 2163 YES YES
		iplma1103a3m2pa 1103 B A3 M2PA 2176 2164 YES YES
		iplma1103b2m2pa 1103 B B2 M2PA 2179 2167 YES YES
		iplma1103b3m2pa 1103 B B3 M2PA 2180 2168 YES YES
		iplma2116am2pa 2116 A A M2PA 3186 3166 YES YES
		iplma2116a1m2pa 2116 A A1 M2PA 3187 3167 YES YES
		iplma2116a2m2pa 2116 A A2 M2PA 3188 3168 YES YES
		iplma2116a3m2pa 2116 A A3 M2PA 3189 3169 YES YES
		iplma2116bm2pa 2116 B B M2PA 3190 3170 YES YES
		iplma2116b1m2pa 2116 B B1 M2PA 3191 3171 YES YES
		iplma2116b2m2pa 2116 B B2 M2PA 3192 3172 YES YES
		iplma2116b3m2pa 2116 B B3 M2PA 3193 3173 YES YES
		g1101asua400a 1101 A A SUA 7300 7300 YES YES
		g1101asua500a 1101 A A SUA 2400 2400 YES YES
		g1102asua400a 1102 A A SUA 2300 2300 YES YES
		g1102asua500a 1102 A A SUA 2400 2400 YES YES
		
		IP Appl Sock/Assoc table is (16 of 4000) 1% full
		
		;</pre>

40	Issue the command to retrieve T1 ports.	`rtrv-t1`

41	The response to the retrieve command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
		      T1
		LOC PORT ENCODE T1TSEL FRAMING LL CHANBRDG
		1304 3 B8ZS LINE ESF 133 ------ CHAN ----
		1304 4 B8ZS LINE ESF 133 ------ CHAN ----
		2203 5 B8ZS LINE ESF 133 ------ CHAN ----
		2203 6 B8ZS LINE ESF 133 ------ CHAN ----
		2314 7 B8ZS LINE ESF 133 ------ CHAN ----
		2314 8 B8ZS LINE ESF 133 ------ CHAN ----
		3113 1 B8ZS LINE ESF 133 ------ CHAN ----
		3113 2 B8ZS LINE ESF 133 ------ CHAN ----
		3214 3 B8ZS LINE ESF 133 ------ CHAN ----
		3214 4 B8ZS LINE ESF 133 ------ CHAN ----
		3307 5 B8ZS LINE ESF 133 ------ CHAN ----
		3307 6 B8ZS LINE ESF 133 ------ CHAN ----
		4104 7 B8ZS LINE ESF 133 ------ CHAN ----
		4104 8 B8ZS LINE ESF 133 ------ CHAN ----
		1107 1 B8ZS LINE ESF 133 ------ CHAN ----
		1107 2 B8ZS LINE ESF 133 ------ CHAN ----
		
		;</pre>

42	Issue the command to retrieve T1 ports.	`rtrv-e1`

43	The response to the retrieve command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
		      E1 LINK MINSU
		LOC PORT CRC4 CAS ENCODE E1TSEL SI SN CHANBRDG CLASS RATE
		1203 1 ON OFF HDB3 LINE 0 0 ------ CHAN ----
		1203 2 ON OFF HDB3 LINE 0 0 ------ CHAN ----
		1203 3 ON OFF HDB3 LINE 0 0 ------ CHAN ----
		1203 4 ON OFF HDB3 LINE 0 0 ------ CHAN ----
		1207 2 ON OFF HDB3 LINE 0 0 ------ CHAN ----
		1207 3 ON OFF HDB3 LINE 0 0 ------ CHAN ----
		1208 3 ON OFF HDB3 LINE 0 0 ------ CHAN ----
		1208 4 ON OFF HDB3 LINE 0 0 ------ CHAN ----
		;</pre>

44	Issue the command to report IP TPS usage.	`rept-stat-iptps`

45	The response to the status command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
		IP TPS USAGE REPORT
		
		                THRESH CONFIG TPS PEAK PEAKTIMESTAMP
		--- 	
		LSN
		ls2206i00 100% 2400 TX: 0 109 10-03-05 10:41:51
		                          RCV: 0 0 00-00-00 00:00:00
		ls2206i01 100% 2400 TX: 0 84 10-03-05 10:41:51
		                          RCV: 0 0 00-00-00 00:00:00
		ls2206i02 100% 2400 TX: 0 85 10-03-05 10:41:51
		                          RCV: 0 0 00-00-00 00:00:00
		ls2206i03 100% 2400 TX: 0 84 10-03-05 10:41:51
		                          RCV: 0 0 00-00-00 00:00:00
		lg1111a00 100% 13280 TX: 0 2883 10-03-08 15:26:06
		                          RCV: 0 0 00-00-00 00:00:00</pre>

System Healthcheck Procedure   **EAGLE 5 ISS Releases 31.6 and later**

Procedure 3: Determining General System Status

| | | ```
lg2305a00   100%  13280  TX:     0      374   10-03-08 17:19:36
                        RCV:    0        0   00-00-00 00:00:00
lg1111i01   100%  13280  TX:     0     2883   10-03-08 15:14:06
                        RCV:    0        0   00-00-00 00:00:00
lg1315i00   100%   5000  TX:     0        9   10-03-12 20:10:36
                        RCV:    0        0   00-00-00 00:00:00
lg5315i00   100%    380  TX:     0        0   00-00-00 00:00:00
                        RCV:    0        0   00-00-00 00:00:00
lg1111n02   100%  13280  TX:     0     2883   10-03-08 15:19:06
                        RCV:    0        0   00-00-00 00:00:00
lg1316n00   100%   5000  TX:     0        9   10-03-12 20:10:36
                        RCV:    0        0   00-00-00 00:00:00
sc1a221a    100%   3200  TX:     1     2883   10-03-08 15:54:36
                        RCV:    0     2920   10-03-08 18:09:21
sc3a223a    100%   3200  TX:     1     2972   10-03-08 18:39:06
                        RCV:    0     2920   10-03-08 17:30:21
sc3a030i    100%   3200  TX:     1     2724   10-03-08 17:17:06
                        RCV:    0     2724   10-03-08 16:44:21
-----------------------------------------------------------------

Command Completed.
;
``` |
| **46** ☐ | Issue the command to generate a measurements report. | **rept-meas:enttype=stp:type=mtcd** |
| **47a** ☐ | The response to the report command is displayed. | ```
tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON STP
REPORT PERIOD: LAST
REPORT INTERVAL:  YY-MM-DD,  00:00:00 THROUGH 23:59:59

STP-MTCD MEASUREMENTS

These measurements are from 10-03-15, 00:00:00 through 23:59:59.
ORIGMSUS  = 228575718, TRMDMSUS  = 204657972, THRSWMSU  = 167565746,
MTPRESTS  =          0, DTAMSULOST =         0, MSINVDPC  =          0,
MSINVSIO  =          0, OMSINVDPC =          0, MSINVLNK  =          0,
MSINVSIF  =          0, MSNACDPC  =         78, MSINVSLC  =          0,
GTTPERFD  =   72959128, GTTUNONS  =      12096, GTTUN1NT  =        360,
MSSCCPFL  =          0, MSULOST1  =          0, MSULOST2  =          0,
MSULOST3  =          0, MSULOST4  =          0, MSULOST5  =          0,
DRDCLFLR  =    4207376, DURLKOTG  =    4207370, CRSYSAL   =        486,
MASYSAL   =      23558, MISYSAL   =       2863, XLXTSPACE =          0,
XLXTELEI  =          0, TTMAPPF   =          0, MSUDSCRD  =          0,
OVSZMSG   =          0, GFGTMATCH =    3888000, GFGTNOMCH =          0,
GFGTNOLKUP =         0, MSUSCCPFLR =         0, MSSCCPDISC =         0,
MSIDPNOMCH =         0, MSIDPMATCH =         0, MSULOST6  =          0,
SCCPLOOP  =          0
;
``` |
| **47b** ☐ | If measurement collection is OFF, the response to the report command is displayed. | ```
tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
TYPE OF REPORT: DAILY MAINTENANCE MEASUREMENTS ON STP
REPORT PERIOD: LAST
REPORT INTERVAL:  YY-MM-DD,  00:00:00 THROUGH 23:59:59

STP-MTCD MEASUREMENTS

Measurement data are not current.
;
``` |
| **48** ☐ | All steps in this procedure were completed. | |

3.4   Report System Troubles

This procedure examines non-network system troubles that should be corrected. Some examples of non-network troubles are:
- Terminal Failed
- Card has bad A or B system clock
- Card is not running approved GPL
- LIM denied SCCP service
- IMT Bus A failed

If there are any non-network troubles, which cannot be resolved, they should be documented.

In some cases, non-network troubles may not be correctable. For example, a terminal port connected to a modem will report Terminal Failed if the modem is not dialed in.

The procedure will also examine the devices that have their alarms inhibited. In some cases, these alarm inhibits may need to be cleared.

Procedure 4: Reporting System Troubles

S T E P #	This procedure examines non-network system troubles that should be corrected (See examples above.) Estimated time for completion: 2 minutes	
1 ☐	Issue the command to report trouble status.	`rept-stat-trbl:display=timestamp`
| **2** ☐ | Response to trouble status command is displayed.<br><br>Record any non-network troubles.<br><br>Trouble _____ | ```
     tekelecstp 98-03-09 14:09:29 EST Rel XX.X.X
     Searching devices for alarms...
;
     tekelecstp 98-03-09 14:09:30 EST Rel XX.X.X
     SEQN UAM  AL DEVICE    ELEMENT        TROUBLE TEXT
     5728.0048  * TERMINAL    14           Terminal failed
                98-03-09  10:05:36
     5729.0048  * TERMINAL    15           Terminal failed
                98-03-09  10:05:36
     5730.0155  * DLK 1107,A               STPLAN connection unavailable
                98-03-09  13:57:40
     5731.0013 ** CARD 1214 SS7ANSI        Card is isolated from the system
                98-03-09  13:57:40
     5604.0013 ** CARD 1111 SCCP           Card is isolated from the system
                98-03-09  13:57:40
     5732.0236 ** SLK 1214,A lsn1214       REPT-LKF: not aligned
                98-03-09  13:57:40
     5733.0236 ** SLK 1214,B lsn1214       REPT-LKF: not aligned
                98-03-09  13:57:40
     5734.0236 ** SLK 1106,A lsnx1         REPT-LKF: not aligned
                98-03-09  13:57:40
     5735.0318 ** LSN lsn1214              REPT-LKSTO: link set prohibited
                98-03-09  13:57:40
     5736.0318 ** LSN lsnx1                REPT-LKSTO: link set prohibited
                98-03-09  13:57:40
     Command Completed.
;
``` |
| **3** ☐ | Issue the command to report inhibited alarms | `rept-stat-alm:display=inhb` |
| **4** | Response to alarm status command is displayed. | ```
     tekelecstp 98-03-09 14:10:29 EST Rel XX.X.X
     rept-stat-alm:display=inhb
     Command entered at terminal #4.
     ALARM  TRANSFER= RMC
     ALARM  MODE      CRIT= AUDIBLE   MAJR= AUDIBLE    MINR= SILENT
     ALARM  FRAME 1     CRIT=   2       MAJR=   4        MINR=   0
     ALARM  FRAME 2     CRIT=   0       MAJR=   0        MINR=   0
     ALARM  FRAME 3     CRIT=   0       MAJR=   0        MINR=   0
     ALARM  FRAME 4     CRIT=   0       MAJR=   0        MINR=   0
     ALARM  FRAME 5     CRIT=   0       MAJR=   0        MINR=   0
     ALARM  FRAME 6     CRIT=   0       MAJR=   0        MINR=   0
     ALARM  FRAME OAP   CRIT=   0       MAJR=   0        MINR=   0
     PERM. INH. ALARMS  CRIT=   0       MAJR=   0        MINR=   0
     TEMP. INH. ALARMS  CRIT=   0       MAJR=   0        MINR=   0
     ACTIVE ALARMS      CRIT=   2       MAJR=   4        MINR=   0
     TOTAL ALARMS       CRIT=   2       MAJR=   4        MINR=   0

     ALARM INHIBIT REPORT
     --------------------
     DEVICE   ELEMENT        DURATION  ALM INH LVL  CUR ALM LVL
     ------   -------        --------  -----------  -----------
     CARD    1101            PERM      MINR         MAJR+
     Command Completed.
;
``` |
| **5** ☐ | All steps in this procedure were completed. | |

3.5   Verifying Database Status

Procedure 5: Verifying Database Status

STE P#	This procedure verifies that your database is coherent, not in transition and that all cards are running at the same database level. Estimated time for completion: 5 minutes	
1 ☐	Perform this step only if on-site personnel are available. If no personnel are available then go to step 2.	`Insert a current release system removable media into the system.`
2 ☐	Issue the command to report database status.	`rept-stat-db:display=all`
| 3a ☐ ☐ ☐ ☐ | Response to database command is displayed if running legacy MASP.<br><br>(MDAL status is not shown if removable cartridge is not installed.)<br><br>Examine the columns labeled C, T and LEVEL output by this command.<br><br>All entries in C should be coherent which is indicated by a Y.<br><br>Verify entries in column 'T' show 'N'. (except the MDAL and TDM-BKUP), which indicates that the database is not in transition<br><br>All entries in LEVEL are numeric values. These values varies based on the system, however all entries in this column should be the same value except TDM-BKUP and MDAL. | ```
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 97-10-20 14:17:18 EST  Y       YYY 97-10-20 14:17:18 EST
FD CRNT  Y       XXX                        Y       XXX
        MDAL 1117
        - --------
RD BKUP  Y       ZZZ 97-10-05 10:26:12 EST

CARD/APPL  LOC    C   T  LEVEL        TIME LAST UPDATE   EXCEPTION
---------  ----   -   -  ---------    ----------------   --------------
SCCP       1101   Y   N  XXX          97-10-20 14:15:17     -
SCCP       1102   Y   N  XXX          97-10-20 14:15:17     -
GLS        1103   Y   N  XXX          97-10-20 14:15:17     -
GLS        1104   Y   N  XXX          97-10-20 14:15:17     -
SS7GX25    1105   Y   N  XXX          97-10-20 14:15:17     -
STPLAN     1111   Y   N  XXX          97-10-20 14:15:17     -
TDM-CRNT   1114   Y   N  XXX          97-10-20 14:15:17     -
TDM-BKUP   1114   Y   -  YYY          97-10-10 13:07:09  DIFF LEVEL
TDM-CRNT   1116   Y   N  XXX          97-10-20 14:15:17     -
TDM-BKUP   1116   Y   -  YYY          97-10-10 13:07:09  DIFF LEVEL
MDAL       1117   Y   -  ZZZ          97-10-03 09:55:22  DIFF LEVEL
SS7ANSI    1201   Y   N  XXX          97-10-20 14:15:17     -
SS7ANSI    1202   Y   N  XXX          97-10-20 14:15:17     -
SS7ANSI    1203   Y   N  XXX          97-10-20 14:15:17     -
CCS7ITU    1211   Y   N  XXX          97-10-20 14:15:17     -
GLS        1218   Y   N  XXX          97-10-20 14:15:17     -
;
``` |

Procedure 5: Verifying Database Status

3b ☐ ☐ ☐ ☐	Response to database command is displayed if running E5 MASP.
	
	(OAM-USB status is only shown for the active MASP)
	
	Examine the columns labeled C, T and LEVEL output by this command.
	
	All entries in C should be coherent which is indicated by a Y.
	
	Verify entries in column 'T' show 'N'. (except the MDAL and TDM-BKUP), which indicates that the database is not in transition
	
	All entries in LEVEL are numeric values. All entries in this column should be the same value except TDM-BKUP, OAM-RMV and OAM-USB.
		``
		    tekelecstp YY-MM-DD hh:mm:ss TTTT 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 YYY YY-MM-DD HH:MM:SS TTTT Y YYY YY-MM-DD HH:MM:SS TTTT
		    FD CRNT Y XXX Y XXX
		           MCAP 1113 MCAP 1115
		           - -------- - --------
		    RD BKUP - - - - Y ZZZ YY-MM-DD HH:MM:SS TTTT
		    USB BKP - - - - - - - -
		
		    CARD/APPL LOC C T LEVEL TIME LAST UPDATE EXCEPTION
		    --------- ---- - - --------- ----------------- --------------
		    SCCP 1101 Y N XXX YY-MM-DD HH:MM:SS -
		    SCCP 1102 Y N XXX YY-MM-DD HH:MM:SS -
		    GLS 1103 Y N XXX YY-MM-DD HH:MM:SS -
		    GLS 1104 Y N XXX YY-MM-DD HH:MM:SS -
		    SS7GX25 1105 Y N XXX YY-MM-DD HH:MM:SS -
		    STPLAN 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 DIFF LEVEL
		    OAM-RMV 1115 Y - ZZZ YY-MM-DD HH:MM:SS 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 DIFF LEVEL
		    SS7ANSI 1201 Y N XXX YY-MM-DD HH:MM:SS -
		    SS7ANSI 1202 Y N XXX YY-MM-DD HH:MM:SS -
		    SS7ANSI 1203 Y N XXX YY-MM-DD HH:MM:SS -
		    CCS7ITU 1211 Y N XXX YY-MM-DD HH:MM:SS -
		    GLS 1218 Y N XXX YY-MM-DD HH:MM:SS -
		
		    ;
		``

4 ☐	Send a distributed network database (DDB) audit request to the active OAM.	`send-msg:loc=XXXX:ds=1:da=h'80:f=5` (running Eagle release 40.4 or below) *(Where XXXX is the location of the active MASP)* or `Aud-data:type=ddb:display=all` (running Eagle release 41.0 or higher)

Procedure 5: Verifying Database Status

5a	Response to the **send message** 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'00fa
		    Orig Subsys = H'0001 Dest Subsys = H'0001
		    Orig Appl ID = H'0030 Dest Appl ID = H'0080
		    Func ID = H'0005 Bus/Ret/Sut = H'0002
		    Violation Ind = H'0000
		User Message sent to location 1113.
		;
		
		tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
		NETWORK AUDIT REPT FOR LIM, SCCP, AND STPLAN CARDS
		
		                 LINK CM CM MATED MTP USER
		LOC RTE SET LINK CARD CLSTR APPL GLOBLS DEF 1
		1101 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		1102 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		1103 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		1104 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		1111 H'fa6c H'8235 H'ff64 H'bd2f H'a398 H'f378 H'0000 ------
		1201 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		1305 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		:
		:
		:
		6101 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		6103 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		6105 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		6107 H'fa6c H'8235 H'ff64 H'bd2f H'a398 ------ H'0000 ------
		6117 H'fa6c H'8235 H'ff64 H'bd2f H'a398 H'f378 H'0000 ------
		END OF NETWORK AUDIT REPORT.
		;</pre>

5b	Response to the **aud-data** command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
		DDB AUDIT REPORT
		    SYSTEM STATUS: OK
		    RESPONDING CARDS: 169
		    INCONSISTENT CARDS: (0)
		    AUDIT START TIME: 18/06/2009 17:53:16
		    NON RESPONDING CARDS: (0)
		    QUIET PERIOD: 500 ms
		
		RTE LINK SET LINK CM CARD CM CLSTR MATED APPL MTP GLOBLS
		H'0a045208 H'020fb1c3 H'05dbdce5 H'00009b73 H'0000a398 ---------- H'00000000
		          LOC=1201 IDLE PERIOD=711345 DDB UPDATES=218290
		
		H'0a045208 H'020fb1c3 H'05dbdce5 H'00009b73 H'0000a398 ---------- H'00000000
		          LOC=1203 IDLE PERIOD=711310 DDB UPDATES=265207
		
		H'0a045208 H'020fb1c3 H'05dbdce5 H'00009b73 H'0000a398 ---------- H'00000000
		          LOC=1205 IDLE PERIOD=711330 DDB UPDATES=303056
		
		       :
		       :
		       :
		
		H'0a045208 H'020fb1c3 H'05dbdce5 H'00009b73 H'0000a398 ---------- H'00000000
		          LOC=6115 IDLE PERIOD=711520 DDB UPDATES=173933
		
		H'0a045208 H'020fb1c3 H'05dbdce5 H'00009b73 H'0000a398 H'00f1f4c3 H'00000000
		          LOC=6117 IDLE PERIOD=711225 DDB UPDATES=75945
		
		H'0a045208 H'020fb1c3 H'05dbdce5 H'00009b73 H'0000a398 ---------- H'00000000
		          LOC=1101 IDLE PERIOD=711185 DDB UPDATES=202383
		
		H'0a045208 H'020fb1c3 H'05dbdce5 H'00009b73 H'0000a398 ---------- H'00000000
		          LOC=1111 IDLE PERIOD=711535 DDB UPDATES=168151
		;</pre>

6	If SEND-MSG was issued, repeat steps 4 – 5 three times. Otherwise, proceed to next step. The DDB is a real-time database and the user needs to issue the audit request repeatedly to determine the true state of the network.	
7	All steps in this procedure were completed.	

3.6 Verifying GPLs

Procedure 6: Verifying GPLs

S T E P #	This procedure verifies that all GPLs are correctly distributed throughout the system, including TDMs and removable cartridges. Estimated time for completion: 5 minutes
1 ☐	Issue the command to display GPL status.	`rtrv-gpl`

| **2a** ☐ ☐ ☐ ☐ | Response to retrieve GPL command is displayed if running legacy MASP.  Verify that all GPLs in the APPROVED, TRIAL, and REMOVE TRIAL columns match those in the RELEASE column.  Also verify that no GPL alarms exist. (Alarms are shown here as an example.)  Verify that the removable cartridge can be read and its GPL contents correspond to current Release GPLs. | ```
tekelecstp 98-03-09 09:21:11 EST Rel XX.X.X
GPL Auditing  ON

APPL     CARD  RELEASE      APPROVED            TRIAL        REMOVE TRIAL
UTILITY  1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
UTILITY  1116  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  -----------
OAM      1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
OAM      1116  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  -----------
SCCP     1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
SCCP     1116  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  -----------
SS7ANSI  1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
SS7ANSI  1116  XXX-XXX-XXX  XXX-XXX-XXX  ALM    XXX-XXX-XXX  -----------
CCS7ITU  1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
CCS7ITU  1116  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  -----------
SS7GX25  1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
SS7GX25  1116  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  -----------
STPLAN   1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
STPLAN   1116  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  -----------

;
``` |

| **2b** ☐ ☐ ☐ ☐ | Response to retrieve GPL command is displayed if running E5-MASP  Verify that all GPLs in the APPROVED, TRIAL, and REMOVE TRIAL columns match those in the RELEASE column.  Also verify that no GPL alarms exist. (Alarms are shown here as an example.)  Verify that the removable cartridge can be read and its GPL contents correspond to current Release GPLs. | ```
tekelecstp 98-03-09 09:21:11 EST Rel XX.X.X
GPL Auditing  ON

APPL     CARD  RELEASE      APPROVED            TRIAL        REMOVE TRIAL
UTILITY  1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
UTILITY  1116  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  -----------

OAM      1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
OAM      1116  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  -----------

SCCP     1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX

SCCP     1116  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  -----------

SS7ANSI  1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
SS7ANSI  1116  XXX-XXX-XXX  XXX-XXX-XXX  ALM    XXX-XXX-XXX  -----------

CCS7ITU  1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
CCS7ITU  1116  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  -----------

SS7GX25  1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
SS7GX25  1116  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  -----------

STPLAN   1114  XXX-XXX-XXX  XXX-XXX-XXX         XXX-XXX-XXX  XXX-XXX-XXX
STPLAN   1116  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  -----------

;
``` |

| **3** ☐ | All steps in this procedure were completed. | |

3.7   Retrieving Obituaries

Procedure 7: Retrieving Obituaries

S T E P #	This procedure retrieves all recently logged obituaries. These obituaries describe the status of the system just before a processor restarted due to a hardware or software failure. The data includes a register and stack dump of the processor, card location, reporting module number, software code location, and class of the fault detected. **Estimated time for completion: 5 minutes**
1 ☐	Issue the command to retrieve obits from MASP A `rtrv-obit:loc=1113`
2 ☐ ☐	Response to retrieve obit command is displayed. Capture any obits that have been generated since the last system health check. If this is the first check, record any unexplained obits. `tekelecstp 98-03-09 18:58:47 EST Rel XX.X.X` `rtrv-obit:loc=1113` `Command entered at terminal #X.` `;` `tekelecstp 98-03-09 18:58:47 EST Rel XX.X.X` `NOTICE: Only 1 obit(s) to retrieve in the log.` `;` `tekelecstp 98-03-09 18:58:47 EST Rel XX.X.X` `------------------------------------------------------------------` `STH: Received a BOOT Appl-obituary reply for restart` `   Card 1113   Module SYETSK.C  Line  202  Class 1016` `   Register Dump :` `     EFL=00003246    CS =0058       EIP=0011007d    SS =0060` `     EAX=12345678    ECX=00000000   EDX=00000000    EBX=ffffffff` `     ESP=0000f3d8    EBP=0000f3f4   ESI=002c2a38    EDI=0003f018` `     DS =0060        ES =0060       FS =0060        GS =0060` `   Stack Dump :` `   [SP+1E]=0000    [SP+16]=0029    [SP+0E]=0000    [SP+06]=0000` `   [SP+1C]=0000    [SP+14]=e38c    [SP+0C]=0000    [SP+04]=0000` `   [SP+1A]=0000    [SP+12]=0000    [SP+0A]=0000    [SP+02]=1234` `   [SP+18]=0058    [SP+10]=0000    [SP+08]=0000    [SP+00]=5678` `   User Data Dump :` `   00 80 03 00 96 00 01 00 00 00 00 00 ac 81 03 00     ...............` `   00 00 00 00 f4 ba 03 00 88 45 01 00 60 00 a7 45     ..:......E..`.E` ` 01 00 60 00 00 00 00 00 .. .` `Report Date:98-03-09 Time:21:06:34` `--;`
3 ☐	Issue the command to retrieve obits from MASP B. `rtrv-obit:loc=1115`

4 ☐
 	
☐
	Response to retrieve obit command is displayed.
	
	Capture any obits that have been generated since the last system health check. If this is the first check, record any unexplained obits.
	
	`tekelecstp 98-03-09 18:58:56 EST Rel XX.X.X`
	`rtrv-obit:loc=1115`
	`Command entered at terminal #X.`
	`;`
	`tekelecstp 98-03-09 18:58:56 EST Rel XX.X.X`
	`NOTICE: Only 3 obit(s) to retrieve in the log.`
	`;`
	`tekelecstp 98-03-09 18:58:56 EST Rel XX.X.X`
	`------------------------------------------------------------------`
	`STH: Received a BOOT Appl-obituary reply for restart`
	`   Card 1108   Module EMM_EXPM.C  Line  1365  Class 0201`
	`   Register Dump :`
	`     EFL=00000046    CS =0058       EIP=0000408d    SS =0060`
	`     EAX=00108b00    ECX=55555555   EDX=00000000    EBX=00000000`
	`     ESP=00108af8    EBP=00108b0c   ESI=00000000    EDI=00000032`
	`     DS =0060        ES =0060       FS =0060        GS =0060`
	
	`   Stack Dump :`
	`   [SP+1E]=0000    [SP+16]=0010    [SP+0E]=5555    [SP+06]=0000`
	`   [SP+1C]=0000    [SP+14]=8b28    [SP+0C]=5555    [SP+04]=0006`
	`   [SP+1A]=0002    [SP+12]=5555    [SP+0A]=1616    [SP+02]=0000`
	`   [SP+18]=0e93    [SP+10]=5555    [SP+08]=1616    [SP+00]=0200`
	
	`   User Data Dump :`
	`   16 16 16 16 55 55 55 55 55 55 55 55               ....UUUUUUUU`
	
	`Report Date:98-03-09  Time:19:48:26`
	`------------------------------------------------------------------`
	`;`

5 ☐	All steps in this procedure were completed.

3.8 Verifying STPLAN

Procedure 8: Verifying STPLAN

S T E P #	Perform procedure only if LAN feature is on, see Procedure 2 , Step 12
	This procedure displays STPLAN status. Verify that all cards that should be in service show a state of IS-NR. Record cards that do not show the expected status.
	Estimated time for completion: 1 minute

1 ☐	Issue the command to display SLAN status.	`rept-stat-slan`
2 ☐	Response to STP LAN status command is displayed.	``` eag1030503 03-01-07 01:21:43 MST Rel XX.x.x-y.y.y SLAN Subsystem Report OOS-MT Fault ----- SLAN Cards Configured= 1 Cards IS-NR= 1 CARD VERSION PST SST AST HOST EAGLE Cap Cap --- ```
☐	Verify that all SLAN-configured cards that should be in service are IS-NR.	``` 1107 XXX-XXX-XXX IS-NR Active ----- 0% 0% --- AVERAGE USAGE per HOST CAPACITY = 0% AVERAGE USAGE per EAGLE CAPACITY = 0% CARDS DENIED SLAN SERVICE: 1101, 1102 Command Completed. ; ```
3 ☐	All steps in this procedure were completed.	

3.9   Verify SCCP Load

Procedure 9: Verify SCCP Load

S T E P #	This procedure verifies that SCCP card loads are all below 40%. Verify that all cards that should be in service show PST - IS-NR. Record cards that do not show the expected status. **Estimated time for completion: 1 minute**
1 ☐	Issue the command to display SCCP status.	`rept-stat-sccp`

| **2** ☐ ☐ ☐ | Response to SCCP status command is displayed. <br><br> Verify that the number in the column labeled MSU USAGE is below 40% for all cards. Record any card slots, which are above 40% for later use. <br><br> SCCP _____ <br> SCCP _____ <br> SCCP _____ <br><br> E2374: SCCP not configured, displayed if no SCCP feature enabled. | ```
tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y
SCCP SUBSYSTEM REPORT IS-NR        Active      -----
SCCP Cards Configured= 4  Cards IS-NR= 4  Capacity Threshold = 60%
CARD    VERSION      PST           SST          AST      MSU USAGE  CPU USAGE
-----------------------------------------------------------------------
1218    XXX-XXX-XXX  IS-NR         Active       -----       29%        4%
1108    XXX-XXX-XXX  IS-NR         Active       -----       33%        5%
1111    XXX-XXX-XXX  IS-NR         Active       -----       39%        6%
-----------------------------------------------------------------------
SCCP Service Average MSU Capacity =   33%   Average CPU Capacity =   5%
Command Completed.
;
``` |

| **3** ☐ | Issue the command to display SCCP status. | `rept-stat-sccp:mode=perf` |

| **4** ☐ | Response to SCCP status command is displayed. | ```
tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y
SCCP SUBSYSTEM REPORT    IS-NR         Active      -----
    SCCP ALARM STATUS    = No Alarms
GFLEX SERVICE REPORT     OOS-MA        Ueq         -----
    GFLEX ALARM STATUS   = No Alarms
MNP SERVICE REPORT       OOS-MA        Ueq         -----
    MNP ALARM STATUS     = No Alarms
LNP SUBSYSTEM REPORT     OOS-MA        Ueq         -----
    LNP:     SSN STATUS  = ----------   MATE SSN STATUS = ----------
    LNP ALARM STATUS     = No Alarms

SCCP Cards Configured=25      Cards IS-NR=25
System Daily Peak SCCP Load        0      TPS 10-03-18 11:40:18
System Overall Peak SCCP Load      0      TPS 00-00-00 00:00:00
System Total SCCP Capacity         129200 TPS (129200 max SCCP Capacity)
System SCCP Capacity Calc. Method (N)
System TPS Alarm Threshold         103360 TPS ( 80% System   N SCCP Capacity)

TPS STATISTICS

================================================================
CARD    CPU      TOTAL     CLASS 0    CLASS 1
        USAGE    MSU RATE  TVG RATE   TVG RATE
----------------------------------------------------------------
1218    2%        0          0          0
1108    4%        0          0          0
1111    2%        0          0          0
----------------------------------------------------------------
AVERAGE MSU USAGE =    0%
AVERAGE CPU USAGE =    2%
TOTAL MSU RATE    =    0

STATISTICS FOR PAST 30 SECONDS
================================================================
TOTAL MSUS:            0
TOTAL ERRORS:         0

HIGHEST 01 OVERALL DAILY PEAKS       LAST 01 DAILY PEAK SCCP LOADS
================================================================
0       TPS 00-00-00 00:00:00          0       TPS 10-03-18 11:40:18

Command Completed.
;
``` |

5 ☐	All steps in this procedure were completed.	

3.10 Verifying LNP and LSMS

Procedure 10: Verifying LNP and LSMS

S T E P #	Perform procedure only if LNP feature is on, see Procedure 2, Steps 14
	This procedure displays LNP subsystem and LSMS statuses. Ensure that all cards that should be in service show PST - IS-NR. Record cards that do not show the expected status.
	This procedure shall also evaluate the SCCP hardware to determine if an upgrade is valid.
	Estimated time for completion: 5 - 20 minutes

1 ☐	Issue the command to display LNP status.	`rept-stat-lnp`

2 ☐ ☐ ☐	Response to LNP status command is displayed.
	
	Verify that cards that are supposed to be in service are IS-NR.
	
	Verify that there are no errors.
		<pre>tekelecstp 98-03-09 10:00:35 EST Rel XX.X.X
		LNP SUBSYSTEM REPORT IS-NR Active -----
		ASSUMING MATE'S LOAD
		LNP Cards Configured=15
		CARD PST SST GTT STATUS LNP STATUS CPU USAGE
		1201 IS-NR Active ACT ACT 1%
		1208 IS-NR Active ACT ACT 1%
		1218 IS-NR Active ACT ACT 1%
		1301 IS-NR Active ACT ACT 1%
		1308 IS-NR Active ACT ACT 0%
		1318 IS-NR Active ACT ACT 1%
		2108 IS-NR Active ACT ACT 1%
		2118 IS-NR Active ACT ACT 1%
		2208 IS-NR Active ACT ACT 1%
		2218 IS-NR Active ACT ACT 1%
		2308 IS-NR Active ACT ACT 1%
		1101 IS-NR Active ACT ACT 1%
		1102 IS-NR Active ACT ACT 1%
		1103 IS-NR Active ACT ACT 1%
		1108 IS-NR Active ACT ACT 1%
		
		LNPQS:
		  SSN STATUS = Allowed MATE SSN STATUS = Prohibited
		  ACG: OVERLOAD LEVEL = 0 MIC USAGE = 0%
		
		AVERAGE USAGE: GTT = 1% LNPMR = 1% LNPQS = 1%
		AVERAGE CPU USAGE = 1%
		TOTAL ERRORS:
		  GTT: 0 out of 1603
		  LNPMR: 0 out of 38
		  LNPQS: 0 out of 5406
		Command Completed.
		;</pre>

3 ☐	If LNP ported TN is 48000000 or higher as recorded in the table following Procedure 2, Step 14 then go to Step 7. Otherwise, issue the command to display LSMS status.	`rept-stat-lsms`

4 ☐ ☐	Response to LSMS status command is displayed. If command is no longer supported on the release E2010 will be output.
	
	Verify that all entries are "IS-NR" and there are no alarms.
		<pre>tekelecstp 98-03-09 10:00:44 EST Rel XX.X.X
		                        GPL PST SST AST
		--- 	
		LSMS SYSTEM IS-NR Active -----
		TDM TRM 15 IS-NR Active -----
		TDM TRM 16 IS-NR Active -----
		OAP A XXX-XXX-XXX IS-NR Active -----
		OAP B XXX-XXX-XXX IS-NR Active -----
		Q.3 Assoc A1 IS-NR Active -----
		Q.3 Assoc B1 IS-NR Active -----
		
		LSMS SYSTEM ALARM STATUS = No Alarms.
		OAP A ALARM STATUS = No Alarms.
		OAP B ALARM STATUS = No Alarms.
		Q.3 Assoc A1 ALARM STATUS = No Alarms.
		Q.3 Assoc B1 ALARM STATUS = No Alarms.
		
		Command Completed.</pre>

Procedure 10: Verifying LNP and LSMS

5 ☐	Issue the command to display card status.	`rept-stat-card:mode=full:loc=XXXX` *(Where XXXX is the location of each SCCP card displayed in Procedure 3.10 Step 2)*
| **6** ☐<br><br><br><br><br>☐ | Response to card status command is displayed.<br><br><br><br>Verify that all cards have at least 4096MB of daughterboard memory. | ```
tekelecstp 04-01-30 10:01:44 EST Rel XX.X.X
CARD   VERSION      TYPE    APPL      PST           SST       AST
1107   114-030-000  TSM     SCCP      IS-NR         Active    -----
  ALARM STATUS        = No Alarms.
  IMT   VERSION       = 114-030-000
  PROM  VERSION       = 023-002-000
  IMT BUS A           = Conn
  IMT BUS B           = Conn
  CLOCK A             = Idle
  CLOCK B             = Active
  CLOCK I             = Idle
  MBD BIP STATUS      = valid
  DB STATUS           = valid
  DBD MEMORY SIZE     = 4096M
  HW VERIFICATION CODE = ----
  SCCP % OCCUP        = 0%
  SNM   TVG_RESULT    = 24 hr: ------, 5 min: ------
Command Completed.
;
``` |
| **7** ☐ | If LNP is ON as recorded in Procedure 2 Step 12
then issue the command to retrieve LNP options. Otherwise, go to next procedure. | `rtrv-lnpopts` |
| **8** ☐<br><br>☐ | Response to LNP options command is displayed.<br><br>Record audit status:<br><br>AUD: _____<br><br>If LNP auditing is on, go to next procedure. | ```
tekelecstp 00-03-23 11:07:27 EST Rel XX.x.x
LNP OPTIONS
----------------------
AMASLPID    = 000000000
INCSLP      = no
AMACTYPE    = 000
AMAFEATID   = 000
CIC         = 0000
AUD         = off
 SP         =
 FRCSMPLX   = no
 ADMHIPRI   = no
 GTWYSTP    = no
;
``` |
| **9** ☐ | If LNP ported TN is 48000000 or higher or the LNP ELAP Configuration feature key is ON, go to next procedure. Otherwise, issue the command to turn LNP Audit on. | `chg-lnpopts:aud=on` |
| **10** ☐ | Response to LNP options command is displayed. | ```
tekelecstp 00-03-23 11:07:43 EST Rel. XX.x.x
CHG-LNPOPTS: MASP A - COMPLTD
;
``` |
| **11** ☐ | For UHC#2, the LNP Audit must be allowed to run for at least 24 hours. | **NOTE**: allow LNP auditing to run for at least 24 hours prior to upgrade. |
| **12** ☐ | All steps in this procedure were completed. | |

3.11 Verifying SEAS

Procedure 11: Verifying SEAS

S T E P #	Perform procedure only if SEAS feature is on, see Procedure 2, Step 12 This procedure verifies that SEAS feature is available. Ensure that all interfaces that should be in service show PST - IS-NR. Record interfaces that do not show the expected status. Estimated time for completion: 1 minute	
1 ☐	Issue the command to display SEAS status.	`rept-stat-seas`

2a ☐
 	
 ☐
	Response to SEAS status command is displayed if connected to an OAP.
	
	 Verify that all entries are "IS-NR" and there are no alarms.
		```tekelecstp 98-03-09 10:00:29 EST Rel XX.X.X```
		 ``` GPL PST SST AST```
		 ```--```
		 ```SEAS SYSTEM IS-NR Active -----```
		 ```TDM TRM 15 IS-NR Active -----```
		 ```TDM TRM 16 IS-NR Active -----```
		 ```OAP A XXX-XXX-XXX IS-NR Active -----```
		 ```OAP B XXX-XXX-XXX IS-NR Active -----```
		 ```X25 Link A1 IS-NR Active -----```
		 ```X25 Link B1 IS-NR Active -----```
		
		 ```SEAS SYSTEM ALARM STATUS = No Alarms.```
		 ```SEAS OAP A ALARM STATUS = No Alarms.```
		 ```SEAS OAP B ALARM STATUS = No Alarms.```
		 ```X25 Link A1 ALARM STATUS = No Alarms.```
		 ```X25 Link B1 ALARM STATUS = No Alarms.```
		
		 ```X25 A1 PVCs IS-NR = 1,2,3```
		 ```X25 A1 PVCs OOS-MT = ---```
		
		 ```X25 B1 PVCs IS-NR = 1,2,3```
		 ```X25 B1 PVCs OOS-MT = ---```
		 ```Command Completed.```
		 ```;```

2b ☐
 	
 ☐
	Response to SEAS status command is displayed if SEAS over IP feature is turned on.
	
	 Verify that all entries are "IS-NR" and there are no alarms.
		```tekelecstp 98-03-09 10:00:29 EST Rel XX.X.X```
		 ``` SEAS SYSTEM PST SST AST```
		 ```--```
		 ``` IS-NR Avail -----```
		 ``` ALARM STATUS = No Alarms```
		
		 ``` TERM IPADDR PORT PST SST AST```
		 ```---```
		 ``` 18 120.30.10.11 15 IS-NR Active -----```
		 ``` ALARM STATUS = No Alarms```
		
		 ``` 40 128.30.15.12 16 IS-NR Active -----```
		 ``` ALARM STATUS = No Alarms```

3 ☐	All steps in this procedure were completed.	

3.12 Verifying optional features

Procedure 12: Verifying optional features

S T E P #	This procedure displays information on which optional features have been enabled. Estimated time for completion: 5 minutes	
1 ☐	Issue the command to retrieve STP options.	`rtrv-stpopts`
2 ☐ ☐	Response to the command is displayed. Record whether the following options are turned on: DSMAUD: ON / OFF Note: DSMAUD only displayed with certain features enabled (e.g. GFLEX, INP, GPORT)	``` e1190601 YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y STP OPTIONS ---------------------- MTPT31CTL 1 MTPLTI yes MTPLTCTDPCQ 3 MTPLTST 10000 MTPXLQ 500 MTPXLET 0100 MTPXLOT 90% MTPDPCQ 5000 TFATFRPR 1000 MTPRSI no MTPRSIT 5000 MTPLPRST yes MTPT10ALT 30000 UIMRD no SLSCNV off CRITALMINH no DISPACTALMS no NPCFMTI 14-00-00-00 DSMAUD ON RPTLNPMRSS yes HMUXABUS yes HMUXBBUS yes HMUXTVG on RANDSLS off GR2878RGLBL yes RSTRDEV on ; ```
3 ☐	If E5IS feature is recorded as on in Procedure 3.2, Step 12 then issue the retrieve command. Otherwise, go to step 7.	`rtrv-eisopts`
4 ☐ ☐	Response to the command is displayed. Record the value of EISCOPY function. If release is 40.1 or later but not 40.4, record the value of FCMODE: EISCOPY: ON / OFF FCMODE: STC/OFF/FCOPY	``` e1190601 YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y EIS OPTIONS ------------------ EISCOPY = OFF FCMODE = OFF ```
5 ☐	Issue the command to retrieve user-specified options for the IP networks used by the EAGLE.	`rtrv-netopts`
6 ☐	Response to the command is displayed. Record the value of PVN and PVNMASK. If the release is 40.1 or later but not 40.4, record the value of FCNA, FCNAMASK, FCNB and FCNBMASK.	``` e1190601 YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y NETWORK OPTIONS ------------------ PVN = 172.20.48.0 PVNMASK = 255.255.252.0 FCNA = 172.21.48.0 FCNAMASK = 255.255.254.0 FCNB = 172.22.48.0 FCNBMASK = 255.255.254.0 ```
5 ☐	Issue the command to retrieve measurement options.	`rtrv-measopts`

Procedure 12: Verifying optional features

| 6 ☐ | Response to the measurement options command is displayed. | ```
e1190601 YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
PLATFORMENABLE   = on
COLLECT15MIN     = off
CLLIBASEDNAME    = off
OAMHCMEAS        = off
---------------------
SYSTOTSTP        = on
SYSTOTTT         = on
SYSTOTSTPLAN     = off
COMPLINK         = on
COMPLNKSET       = on
COMPSCTPASOC     = off
COMPSCTPCARD     = off
COMPUA           = off
GTWYSTP          = on
GTWYLNKSET       = on
GTWYORIGNI       = on
GTWYORIGNINC     = on
GTWYLSORIGNI     = on
GTWYLSDESTNI     = on
GTWYLSONISMT     = off
NMSTP            = on
NMLINK           = on
NMLNKSET         = on
AVLLINK          = on
AVLSTPLAN        = on
AVLDLINK         = off
``` |
| 7 ☐ | All steps in this procedure were completed. | |

3.13 Verifying IP Signaling Status

Procedure 13: Verifying IP Signaling Status

S T E P #	**This procedure displays the status of IP Signaling connections and Application Servers. Verify that all IP Signaling connections and Application Servers that should be in service show a state of IS-NR. Record connections or Application Servers that do not show the expected status.** **Estimated time for completion: 1 minute**

Procedure 13: Verifying IP Signaling Status

S T E P #	This procedure displays the status of IP Signaling connections and Application Servers. Verify that all IP Signaling connections and Application Servers that should be in service show a state of IS-NR. Record connections or Application Servers that do not show the expected status. Estimated time for completion: 1 minute	
1 ☐	Issue the command to display SCTP Association status.	`rept-stat-assoc`

2 ☐	Response to SCTP Association status command is displayed. Verify that all SCTP Associations that should be in service are IS-NR.	```
		    eag1030503 03-01-07 01:21:43 MST Rel XX.x.x-y.y.y
		    ASSOCIATION PST SST
		    ipgwa1 IS-NR ASP-ACTIVE
		    ipgwa2 IS-NR ASP-ACTIVE
		    iplima1 IS-NR ESTABLISHED
		    iplima2 IS-NR ESTABLISHED
		    Command Completed.
		;```

3 ☐	If Release 38.0 or later, go to Step 5. Otherwise, issue the command to display TCP Socket status.	`rept-stat-applsock`

4 ☐ ☐	Response to TCP Socket status command is displayed. Verify that all TCP Sockets that should be in service are IS-NR.	```
		    eag1030503 03-01-07 01:21:43 MST Rel XX.x.x-y.y.y
		    SOCKET PST SST
		    ipgws1 IS-NR NEA-FEA
		    ipgws2 IS-NR NEA-FEA
		    iplims1 IS-NR NEA-FEA
		    iplims2 IS-NR NEA-FEA
		    Command Completed.
		;```

5 ☐	Issue the command to display Application Server status.	`rept-stat-as`

6 ☐	Response to Application Server status command is displayed. Verify that all Application Servers that should be in service are IS-NR.	```
		    eag1030503 03-01-07 01:21:43 MST Rel XX.x.x-y.y.y
		    AS PST SST
		    ipgwas1 IS-NR AS-ACTIVE
		    ipgwas2 IS-NR AS-ACTIVE
		    Command Completed.
		;```

7 ☐	All steps in this procedure were completed.	

3.14 Verifying EROUTE

Procedure 14: Verifying EROUTE

S T E P #	This procedure displays the status of the STC cards, and also displays any cards that are denied EROUTE service. Record cards that are denied EROUTE service. This procedure issues the "netstat" command to STC cards to determine if IP addresses have been associated with the card. Record cards that do not have IP addresses associated with them. **Estimated time for completion: 5 minutes**	
1 ☐	Perform this procedure only if the E5IS feature is on as recorded in Procedure 2, Step 12 If release is 40.4 or earlier but not 40.1, issue the command to display EROUTE status. Otherwise, go to Step 3.	`rept-stat-eroute`
| 2 ☐<br><br>☐ | Response to EROUTE status command is displayed.<br><br>Verify that all cards listed are in IS-NR state.<br><br>Note: if any cards are denied eroute service, the text "CARDS DENIED EROUTE SERVICE:" will be displayed followed by the card locations. | ```
    tekelecstp 98-03-09 19:47:19 EST Rel XX.X.X
    EROUTE SUBSYSTEM REPORT IS-NR        Active      -----
    STC Cards Configured= 7  Cards IS-NR= 7
    EISCOPY BIT = ON
    System Threshold = 80% Total Capacity
    System Peak EROUTE Load:           8000 Buffers/Sec
    System Total EROUTE Capacity:      9600 Buffers/Sec

    SYSTEM ALARM STATUS = No Alarms.

    CARD    VERSION     PST           SST       AST      TVG   CPU
                                                         USAGE USAGE
    ---------------------------------------------------------------
    1205    236-024-005  IS-NR        Active    -----     35%   52%
    1211    236-024-005  IS-NR        Active    -----     35%   52%
    1303    236-024-005  IS-NR        Active    -----     35%   52%
    1311    236-024-005  IS-NR        Active    -----     35%   52%
    1313    236-024-005  IS-NR        Active    -----     35%   52%
    2211    236-024-005  IS-NR        Active    -----     35%   52%
    2213    236-024-005  IS-NR        Active    -----     35%   52%
    ---------------------------------------------------------------
    EROUTE Service Average TVG Capacity =  35%  Average CPU Capacity =  52%


    Command Completed.
;
``` |

Procedure 14: Verifying EROUTE

3 ☐	If release is 40.1 or later but not 40.4, issue the command to display EROUTE status. Otherwise, go to Step 5.	`rept-stat-mon:type=eroute`
| **4** ☐<br><br>☐ | Response to EROUTE status command is displayed.<br><br><br>Verify that all cards listed are in IS-NR state.<br><br><br>Note: if any cards are denied eroute service, the text "CARDS DENIED EROUTE SERVICE:" will be displayed followed by the card locations. | ```
    tekelecstp 98-03-09 19:47:19 EST Rel XX.X.X
    EROUTE SUBSYSTEM REPORT IS-NR         Active      -----
    STC Cards Configured= 7  Cards IS-NR= 7
    EISCOPY BIT = ON
    System Threshold = 80% Total Capacity
    System Peak EROUTE Load:           8000 Buffers/Sec
    System Total EROUTE Capacity:      9600 Buffers/Sec

    SYSTEM ALARM STATUS = No Alarms.

    CARD   VERSION      PST       SST      AST      TVG   CPU
                                                    USAGE USAGE
    ----------------------------------------------------------------
    1205   236-024-005  IS-NR     Active   -----    35%   52%
    1211   236-024-005  IS-NR     Active   -----    35%   52%
    1303   236-024-005  IS-NR     Active   -----    35%   52%
    1311   236-024-005  IS-NR     Active   -----    35%   52%
    1313   236-024-005  IS-NR     Active   -----    35%   52%
    2211   236-024-005  IS-NR     Active   -----    35%   52%
    2213   236-024-005  IS-NR     Active   -----    35%   52%
    ----------------------------------------------------------------
    EROUTE Service Average TVG Capacity = 35%  Average CPU Capacity =  52%


    Command Completed.
;
``` |
| **5** ☐ | Issue the command to display network status for the card. | `Pass:loc=xxxx:cmd="netstat -i"`
(where XXXX is the slot ID of an STC card that is IS-NR in step 2 or step 4.) |
| **6** ☐<br><br>☐ | Response to NETSTAT command is displayed.<br><br><br>Verify both Port A (Seeq 0) and Port B (Seeq 1) of the STC card have an associated IP address.<br><br><br>Note: For E5-ENET card, verify both Port A (GEI 2) and Port B (GEI 0) have associated IP addresses. | ```
    e10710 05-05-31 14:26:50 EST   UNKNOWN ??.?.?-55.28.0
    PASS: Command sent to card
;

    e10710 05-05-31 14:26:50 EST   UNKNOWN ??.?.?-55.28.0
    DPLend (unit number 0):
        Flags: (0x863) UP BROADCAST ARP RUNNING 10MB HDX DIX
        Type: ETHERNET_CSMACD
        Internet address: 172.20.48.11
        Broadcast address: 172.20.255.255
        Netmask 0xffff0000 Subnetmask 0xffff0000
        Ethernet address is 00:00:00:00:00:0b
        Metric is 0
        Maximum Transfer Unit size is 485
        685002 packets received; 1 packets sent
        0 multicast packets received
        0 multicast packets sent
        0 input errors; 0 output errors
        0 collisions; 0 dropped
    seeq (unit number 1):
        Flags: (0x78063) UP BROADCAST MULTICAST ARP RUNNING AUTONEG 100MB
        Type: ETHERNET_CSMACD
        Internet address: 192.168.178.96
        Broadcast address: 192.168.178.255
        Netmask 0xffffff00 Subnetmask 0xffffff00
        Ethernet address is 00:00:17:0c:24:e5
        Metric is 0
        Maximum Transfer Unit size is 1500
        24158824 packets received; 1703911 packets sent
        24158824 multicast packets received
        1703904 multicast packets sent
        0 input errors; 0 output errors
        0 collisions; 0 dropped
    lo (unit number 0):
        Flags: (0x8069) UP LOOPBACK MULTICAST ARP RUNNING 10MB HDX DIX
        Type: SOFTWARE_LOOPBACK
        Internet address: 127.0.0.1
        Netmask 0xff000000 Subnetmask 0xff000000
        Metric is 0
        Maximum Transfer Unit size is 32768
        0 packets received; 0 packets sent
        0 multicast packets received
        0 multicast packets sent
        0 input errors; 0 output errors
        0 collisions; 0 dropped
    seeq (unit number 0):
        Flags: (0x78063) UP BROADCAST MULTICAST ARP RUNNING AUTONEG 100MB
        Type: ETHERNET_CSMACD
        Internet address: 192.168.177.97
        Broadcast address: 192.168.177.255
``` |

Procedure 14: Verifying EROUTE

<table>
<tr>
<td></td>
<td></td>
<td>
<pre>
                    Netmask 0xffffff00 Subnetmask 0xffffff00
                    Ethernet address is 00:00:17:0c:24:e4
                    Metric is 0
                    Maximum Transfer Unit size is 1500
                    26021319 packets received; 2389075 packets sent
                    26021156 multicast packets received
                    1703906 multicast packets sent
                    0 input errors; 0 output errors
                    0 collisions; 0 dropped

;

    e10710 05-05-31 14:26:56 EST UNKNOWN ??.?.?-55.28.0

    NETSTAT command complete
</pre>
</td>
</tr>
<tr>
<td>7
☐</td>
<td>Repeat steps 5 - 6 for all STC cards that are IS-NR in step 2.</td>
<td></td>
</tr>
<tr>
<td>8
☐</td>
<td>All steps in this procedure were completed.</td>
<td></td>
</tr>
</table>

3.15 Verifying IMT Status

Procedure 15: Verifying IMT Status

S T E P #	This procedure verifies that the IMT Bus is free of errors. This procedure is run in correspondence with Procedure 3. **Estimated time for completion: 5 – 15 minutes**	
1 ☐	Issue the command to display IMT errors.	```rept-imt-lvl1:sloc=1201:eloc=1115:r=summary```
| **2** ☐<br><br>☐ | Response to IMT report command is displayed.<br><br>Ensure that all highlighted columns contain zeroes. | ```
tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
=========================================================================
SUMMARY REPORT:  Totals accumulated from all requested cards

Count                                  Bus A Value    Bus B Value
-----                                  -----------    -----------
Transmit Packet                                 0M             0M
Transmit Byte                                   0M             0M
Receive Packet                                  0M             0M
Receive Byte                                    0M             0M
Receive Packet with CRC Error                    0              0
Receive Packet with Format Error                 0              0
Receive Packet with Invalid Length               0              0
Primary Control Receive Error                    0              0
Primary Control Transmit Error                   0              0
Primary Control Sanity Error                     0              0
Violation Error                                  0              0
CPU Receive FIFO Full                            0              0
IMT Receive FIFO Half Full                       0              0
CPU Receive FIFO Half Full                       0              0
DMA Terminal Count Interrupt                     0              0
MSU Retransmitted                                0              0
MSU Safety Packet                                0              0
ASU Safety Packet                                0              0
TSU Safety Packet                                0              0
IMT Receive FIFO Full                            0              0
SSU Safety Packet                                0              0
-------------------------------------------------------------------------
;END OF REPORT
;
``` |
| **3** ☐ | If non-zeros, the command to display IMT level 1 information. | ```rept-imt-lvl1:sloc=1201:eloc=1115:r=full``` |
| **4** ☐ | Response to MUX status command is displayed.<br><br>Note: Output abridged for brevity, | ```
tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
=========================================================================
FULL REPORT:  Totals accumulated from all requested cards

Count                                  Bus A Value    Bus B Value
-----                                  -----------    -----------
Transmit Packet                                 0M             0M
Transmit Byte                                   0M             0M
Receive Packet                                  0M             0M
Receive Byte                                    0M             0M
Receive Packet with CRC Error                    0              0
Receive Packet with Format Error                 0              0
Receive Packet with Invalid Length               0              0
Primary Control Receive Error                    0              0
Primary Control Transmit Error                   0              0
Primary Control Sanity Error                     0              0
Violation Error                                  0              0
CPU Receive FIFO Full                            0              0
IMT Receive FIFO Half Full                       0              0
CPU Receive FIFO Half Full                       0              0
DMA Terminal Count Interrupt                     0              0
MSU Retransmitted                                0              0
MSU Safety Packet                                0              0
ASU Safety Packet                                0              0
TSU Safety Packet                                0              0
IMT Receive FIFO Full                            0              0
SSU Safety Packet                                0              0
-------------------------------------------------------------------------
;END OF REPORT
;
``` |
| **5** ☐ | Issue the status command for the MUX cards | ```rept-stat-mux``` |

Procedure 15: Verifying IMT Status

6 ☐ ☐ ☐	Response to MUX status command is displayed. Verify that all cards are IS-NR. Record the types of MUX cards displayed (circle all that are applicable): HMUX HIPR HIPR2	``` 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 HMUX IS-NR Active ----- 1210 HMUX IS-NR Active ----- 1309 HIPR IS-NR Active ----- 1310 HIPR IS-NR Active ----- 2109 HIPR2 IS-NR Active ----- 2110 HIPR2 IS-NR Active ----- Command Completed. ; ```
7 ☐	Issue the report IMT information command. Repeat for all MUX types recorded in Step 6.	`rept-imt-info:report=`*XXXX*`err` *(where report=hmuxerr if HMUX cards were detected in step 6;* *report=hiprerr if HIPR cards were detected in step 6;* *report=hipr2err is HIPR2 cards were detected in step 6.)*

8 ☐	Response to report IMT information command is displayed.
	
	Note: Output abridged for brevity, Actual output varies based on software release and card type.
		``
		tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
		XXXX Summary Report: Summed across all requested cards for each bucket
		
		XXXX Hourly Bucket Statistics
		
		===
		Bucket Low Speed Statistic BUS A Value BUS B Value
		------ ------------------- ----------- -----------
		XX IMT Rx Packet CRC Error 0 0
		       IMT Rx Packet Format Error 0 0
		       IMT Rx Violation Error 0 0
		       IMT Rx Command Error 0 0
		       IMT Rx FIFO Full 0 0
		       IMT Rx FIFO Half Full 0 0
		       IMT Tx FIFO Full 0 0
		       IMT Tx FIFO Half Full 1 0
		
		       High Speed Statistic BUS A Value BUS B Value
		       -------------------- ----------- -----------
		       IMT Rx Packet CRC Error 0 0
		       IMT Rx Disparity Error 0 0
		       IMT Rx Sync Lost Error 0 0
		       IMT Rx Code Word Error 0 0
		       CPU Rx FIFO Full 0 0
		       CPU Rx FIFO Half Full 0 0
		       CPU Rx FIFO Empty Before SOM 0 0
		       CPU Rx FIFO Empty Before EOM 0 0
		       CPU Rx Packet SOM Before EOM 0 0
		       CPU Rx Packet CRC Error 0 0
		       DMA terminal count 0 0
		       CPU Tx Buffer EOB 0 0
		       CPU Tx Buffer Full 0 0
		       CPU Tx Buffer Half Full 9 9
		       IMT Bypass FIFO Full 0 0
		       IMT Bypass FIFO Half Full 0 0
		       IMT Rx FIFO Full 0 0
		       IMT Rx FIFO Half Full 0 0
		
		       Misc Speed Statistic BUS A Value BUS B Value
		       -------------------- ----------- -----------
		       Shelf ID UART Framing Error 0 0
		       Shelf ID UART Overrun Error 0 0
		
		;
		``

9 ☐	All steps in this procedure were completed.	

3.16 Retrieving Trouble Data

Procedure 16: Retrieving Trouble Data

<table>
<tr>
<td rowspan="2">S
T
E
P
#</td>
<td colspan="2">**This procedure retrieves the most recently logged troubles.**

Estimated time for completion: 5 minutes</td>
</tr>
<tr></tr>
<tr>
<td>**1** ☐</td>
<td>Issue the command to retrieve troubles from MASP A.</td>
<td>`rtrv-trbl:loc=1113:num=15`</td>
</tr>
<tr>
<td>**2** ☐

☐</td>
<td>Response to retrieve trouble command is displayed. Troubles shown here are only examples.

Note any unexplained troubles. (The troubles shown are examples only, actual troubles - if any - may differ.)</td>
<td>
<pre>
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    rtrv-trbl:loc=1113:num=15
    Command entered at terminal #X.
;
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    NOTICE: Only 2 trouble(s) to retrieve in the log.
;
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    Card 1113   Module SCM_UTL0.C Line 4101 Class 01bc Severity 1
       0f   .
    Report Date:98-01-09 Time:19:35:00
;
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    Card 1107   Module ED_ENET.C Line 437   Class 01c3 Severity 1
       bc 5e 20 00 07 2d 12 00 d4 9b 00 00 00   .^...-.......
    Report Date:98-03-09 Time:19:35:26
;
</pre>
</td>
</tr>
<tr>
<td>**3** ☐</td>
<td>Issue the command to retrieve troubles from MASP B.</td>
<td>`rtrv-trbl:loc=1115:num=15`</td>
</tr>
<tr>
<td>**4** ☐

☐</td>
<td>Response to retrieve trouble command is displayed. Troubles shown here are only examples.

Note any unexplained troubles. (The troubles shown are examples only, actual troubles - if any - may differ.)</td>
<td>
<pre>
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    rtrv-trbl:loc=1115:num=15
    Command entered at terminal #X.
;
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    NOTICE: Only 1 trouble(s) to retrieve in the log.
;
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    Card XXXX   Module XXXXXXXX.C Line XXXX Class XXXX Severity X
       0f   .
    Report Date:98-01-07 Time:19:53:37
;
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    5876.1083   SYSTEM   INFO   REPT COND: system alive
                  Report Date:98-03-10 Time:18:59:27
;
</pre>
</td>
</tr>
<tr>
<td>**5** ☐</td>
<td>If the amount of output displayed on the capture terminal is excessive, then issue the command to change the terminal output groups. Otherwise, go to step 7.</td>
<td>`chg-trm:trm=P:all=no:sys=yes:sa=yes:db=yes`
(where P is the location of the capture terminal used in Proc 1, Step 5.)</td>
</tr>
<tr>
<td>**6** ☐</td>
<td>Response to change terminal command is displayed.</td>
<td>
<pre>
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    chg-trm:trm=P:all=no:sys=yes:sa=yes:db=yes
    Command entered at terminal #X.
;

    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    CHG-TRM: MASP A – COMPLTD
;
</pre>
</td>
</tr>
<tr>
<td>**7** ☐</td>
<td>All steps in this procedure were completed.</td>
<td></td>
</tr>
</table>

3.17 Verifying Clock Status

Procedure 17: Verifying Clock Status

S T E P #	This procedure verifies your system clock status. Specifically, the primary and secondary BITS clocks and the A and B clocks going to each card are examined. Both the Primary and Secondary BITS clocks should be good (IDLE or ACTIVE) on both the active and standby MASP. There should be no cards reporting a bad A clock and no cards reporting a bad B clock in step 2.
1 ☐	Issue the command to report clock status.	`rept-stat-clk:mode=full`
2 ☐ ☐ ☐ ☐	Response to clock status command is displayed. Verify that both BITS clocks are either in IDLE or ACTIVE state on both ACTIVE and STANDBY MASP. All highlighted cards-with-bad-CLK values should equal zero. Verify that the card location of the standby TDM that is displayed matches the value that was recorded in Procedure 3, Step 14	(see code below)

```
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    CARD LOC= 1114 (Standby  )    CARD LOC= 1116 (Active   )
    PRIMARY BITS      = Active    PRIMARY BITS      = Active
    SECONDARY BITS    = Idle      SECONDARY BITS    = Idle
    HS PRIMARY CLK    = Active    HS PRIMARY CLK    = Active
    HS SECONDARY CLK  = Idle      HS SECONDARY CLK  = Idle
    TSC CLOCK         = Clock A   TSC CLOCK         = Clock A

                            PST           SST        AST
    SYSTEM CLOCK            IS-NR         Idle       -----
    # Cards using CLK A = X      # Cards with bad CLK A = 0
    # Cards using CLK B = X      # Cards with bad CLK B = 0
    # Cards using CLK I = X
                                PST          SST        AST
    HS SYSTEM CLOCK             IS-NR        ACTIVE     ALMINH
    # Cards using HSCLK A = 001  # Cards with bad HSCLK A = 000
    # Cards using HSCLK B = 000  # Cards with bad HSCLK B = 000
    # Cards using HSCLK I = 000

    Command Completed.
;


Command Output for release 39.0 or greater.

    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    COMPOSITE                          PST         SST        AST
        SYSTEM CLOCK                   IS-NR       Idle       -----
    ALARM STATUS = No Alarms.
        Primary Comp Clk 1114   (CLK A)  IS-NR     Active
        Primary Comp Clk 1116   (CLK B)  IS-NR     Active
        Secondary Comp Clk 1114 (CLK A)  IS-NR     Idle
        Secondary Comp Clk 1116 (CLK B)  IS-NR     Idle

    Clock      Using      Bad
    CLK A      173        0
    CLK B      2          0
    CLK I      0          --

    HIGH SPEED                         PST         SST        AST
        SYSTEM CLOCK                   IS-NR       Active     -----
    ALARM STATUS = No Alarms.
        Primary HS Clk 1114   (HS CLK A)  IS-NR    Active
        Primary HS Clk 1116   (HS CLK B)  IS-NR    Active
        Secondary HS Clk 1114(HS CLK A)   IS-NR    Idle
        Secondary HS Clk 1116(HS CLK B)   IS-NR    Idle

    HS CLK TYPE 1114    = RS422
    HS CLK LINELEN 1114 = -----
    HS CLK TYPE 1116    = RS422
    HS CLK LINELEN 1116 = -----

    Clock      Using      Bad
    HS CLK A   19         0
    HS CLK B   0          0
    HS CLK I   0          --

    Cards with bad clock source:
    CARD            CLK A       CLK B        HS CLK A    HS CLK B
    ------------------------------------------------------------


    Command Completed.
;
```

Procedure 17: Verifying Clock Status

3 ☐	If the source release is prior to 39.2, issue the command to change all terminal groups. Otherwise, go to step 10	`chg-trm:trm=X:all=yes:traf=no:link=no:pu=no:gtt=no:gws=no:meas=no` *(Where X is the location of the user's terminal.)*

4 ☐	Response to change terminal command is displayed.	`    tekelecstp YY-MM-DD hh:mm:ss zone PPP XX.x.x-YY.y.y`
		`    CHG-TRM: MASP A – COMPLTD`
		`;`

5 ☐	If the source release is prior to 39.2, issue the command to display clock registers, else go to step 10.	`send-msg:ds=1:oa=h'98:da=h'5d:f=h'61:loc=XXXX` *(Where XXXX is the location of the active GPSM/E5-MCAP)*

6 ☐	Response to send-message command is displayed.	`    tekelecstp YY-MM-DD hh:mm:ss zone PPP XX.x.x-YY.y.y`
		`    BITS clock status register H'00a0`
		`    HS clock status register H'008f`
		`    GTI status register H'00e0`
		`    GTI clock status register H'0000`
		`    Primary LIU violation register 0`
		`    Secondary LIU violation register 0`
		`;`

7 ☐	Repeat steps 5 – 6 for the standby MASP.	Note: the following internal web page is used to analyze the output: http://tekpedia.nc.tekelec.com/tekpedia/index.php/Reading_EAGLE_clock_status_registers_-_send-msg_command
8 ☐	Issue the command to change all terminal groups.	`chg-trm:trm=X:all=no:tmout=0:sa=yes:sys=yes:db=yes:card=yes` *(Where X is the location of the user's terminal.)*

9 ☐	Response to change terminal command is displayed.	`    tekelecstp YY-MM-DD hh:mm:ss zone PPP XX.x.x-YY.y.y`
		`    CHG-TRM: MASP A – COMPLTD`
		`;`

10 ☐	If release is 41.1 or higher, issue the command to retrieve the clock options.	`rtrv-clkopts`

11 ☐	Response to retrieve command is displayed.	`    tekelecstp YY-MM-DD hh:mm:ss zone PPP XX.x.x-YY.y.y`
		`    CLK OPTIONS`
		`    ----------------------`
		
		`    PRIMARY`
		`    ----------------------`
		`    HSCLKSRC         rs422`
		`    HSCLKLL        longhaul`
		
		`    SECONDARY`
		`    ----------------------`
		`    HSCLKSRC         rs422`
		`    HSCLKLL        longhaul`
		`;`

12 ☐	All steps in this procedure were completed.	

3.18 Verifying MPS

The purpose of this procedure is to determine the health of MPS.

Procedure 18: Verifying MPS

S T E P #	This procedure checks the status of the MPS. Estimated time for completion: 1 - 10 minutes	
1 ☐	Issue the command to display MPS status.	`rept-stat-mps`

2 ☐	Response to MPS status command is displayed, if any of the features requires ELAP/EPAP.
	
	If the MTT error 4102 is output go to step 5.
		``
		Integrat40 00-06-24 10:37:22 EST Rel XX.X.X-xx.xx.x
		
		                        VERSION PST SST AST
		MPS A 027-015-000 OOS-MT Fault -----
		     CRITICAL PLATFORM ALARM DATA = No Alarms
		     MAJOR PLATFORM ALARM DATA = h'0123456789ABCDEF
		     MINOR PLATFORM ALARM DATA = h'0123456789ABCDEF
		     CRITICAL APPLICATION ALARM DATA = No Alarms
		     MAJOR APPLICATION ALARM DATA = h'0123456789ABCDEF
		     MINOR APPLICATION ALARM DATA = No Alarms
		           ALARM STATUS = ** 0371 Major Platform Failure(s)
		
		                        VERSION PST SST AST
		MPS B 027-015-000 OOS-MT Fault -----
		     CRITICAL PLATFORM ALARM DATA = No Alarms
		     MAJOR PLATFORM ALARM DATA = No Alarms
		     MINOR PLATFORM ALARM DATA = No Alarms
		     CRITICAL APPLICATION ALARM DATA = h'0123456789ABCDEF
		     MAJOR APPLICATION ALARM DATA = h'0123456789ABCDEF
		     MINOR APPLICATION ALARM DATA = No Alarms
		           ALARM STATUS = *C 0373 Critical Application Failure(s)
		
		CARD PST SST LNP STAT
		1106 P IS-NR Active ACT
		1201 IS-ANR Active SWDL
		1205 OOS-MT-DSBLD Manual -------
		1302 OOS-MT Fault -------
		1310 IS-ANR Standby SWDL
		
		CARD 1106 ALARM STATUS = No Alarms
		CARD 1201 ALARM STATUS = No Alarms
		CARD 1205 ALARM STATUS = No Alarms
		CARD 1302 ALARM STATUS = ** 0013 Card is isolated from the system
		CARD 1310 ALARM STATUS = No Alarms
		
		Command Completed.
		;
		``

3 ☐	If DSM Audit was recorded as being on in Procedure 3.12 Step 2, or is not displayed then go to step 5. Otherwise, if DSM Audit is off, then execute this step. Issue the command to change STP options.	`chg-stpopts:dsmaud=on`
4 ☐	Response to the command is displayed	``` tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y CHG-STPOPTS: MASP B - COMPLTD ; ```
5 ☐	All steps in this procedure were completed.	

3.19 Verify Source Database and Enter Software Access Key

Procedure 19: Verify Source Database and enter Software Access Key

S T E P #	The purpose of this procedure is to determine the presence of unsupported or obsolete references in the system prior to doing an upgrade. And validate the Software Access Key necessary to perform the upgrade.
	
	This procedure requires either an upgrade target release MO cartridge or the target release has been downloaded to the fixed disk.[3]
	
	This procedure verifies the presence of the following:
	
	   • **obsolete cards**
	
	   • **unsupported/invalid IP database references**
	
	   • **unsupported TALI links and sockets**
	
	   • **unsupported ISUP Normalization features related database references**
	
	   • **network address conflicts with the PVN and FCN network address**
	
	   • **too many Single Digit Wildcard characters per NPP Service**
	
	Note: this procedure is intrusive meaning the target OAM application must be loaded temporarily to complete this procedure. To ensure accuracy, it is strongly suggested that data capture be active during this procedure because the information produced by this procedure will be used to guide replacement of obsolete cards, removal of unsupported/invalid IP database references, removal of TALI links or sockets, ISUP Normalization features and SDWC related database references.
	
	The Software Access Key (SAK) for the upgrade target release is required for this procedure.
	
	Estimated time for completion: 10 minutes

1 ☐	If the upgrade target EAGLE software release has been delivered on an MO cartridge, insert it into the MDAL. Else, make sure no removable drive is inserted.	Note: this procedure assumes that if MO cartridge is not being used, then the target-release software has been downloaded to the inactive partition on the fixed drives.
2 ☐	Issue the card status to verify the location of the active MASP slot	`rept-stat-card:appl=oam`

---

[3] In the EAGLE Software Upgrade Procedure; see Appendix B: Target Release Software Download on how to download the software release to the fixed disk for the applicable target release.

Procedure 19: Verify Source Database and enter Software Access Key

3 ☐ ☐	Response to the card status command is displayed.
	
	Record the card locations of both MASPs and the running GPL:
	
	Act MASP _____
	
	Stby MASP ____
	
	MASP gpl: _____
	
	For this sample output, 1113/1114 are active and 1115/1116 are standby.
	
	Record the system date, time and time zone in the response header:
	
	Time: _____
	
	Date: _____
	
	Timezone: _____
	
	Record the local time:
	
	Local Time: _____
		``
		   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 -----
		   Command Completed.
		;
		``

4 ☐	If the upgrade source release is 40.1 or later but not 40.4 continue with Step 5. Otherwise, go to Step 34.	In release 40.1 it is necessary for the OAM cards to be running the target release flash gpl before running the target release application gpl.
5 ☐	If release delivered on MO continue with Step 6. Else go to Step 10	Need to copy the BPDCM and BPDCM2 GPLs from the MO before performing the rest of the procedure.
6 ☐	Issue command to retrieve the BPDCM version from the MO.	**rtrv-gpl:gpl=bpdcm**

7 ☐	Response to retrieve 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
		
		   GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL
		   BPDCM 1114 132-010-000 132-010-000... 132-010-000 -----------
		   BPDCM 1116 132-010-000 132-010-000... 132-010-000 xxx-xxx-xxx
		``

8 ☐	Issue the command to copy the GPL from the MO.	**chg-gpl:gpl=bpdcm:ver=xxx-xxx-xxx** (Where xxx-xxx-xxx is the GPL version recorded in the previous step)

Procedure 19: Verify Source Database and enter Software Access Key

9 ☐ ☐	Response to change command is displayed. Repeat steps 6 thru 9 for the BPDCM2 GPL (replace BPDCM with BPDCM2)	```tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
chg-gpl:gpl=bpdcm: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 uploaded to 1116 completed
System Release ID table uploaded to 1114 completed
;``` |
| 10 ☐ | Inhibit the standby MASP | `inh-card:loc=XXXX`

(Where *XXXX* is the location of the standby MASP slot recorded in step 3) |
| 11 ☐ ☐ | Response to the inhibit command is displayed

Verify UAM 514 is displayed. | ```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 TTTT PPP XX.x.x-YY.y.y
** 7991.0514 ** CARD xxxx OAMHC   Standby MASP is inhibited
;```
Wait for card to boot and return to the IMT bus. |
| 12 ☐ | Download target release flash to the standby MASP. | `init-flash:loc=XXXX:code=trial`

(Where *XXXX* is the location of the standby MASP slot recorded in step 3) |
| 13 ☐ ☐ | Response to flash initialization is shown.

Verify UAM 0004 is displayed. | ```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.
;
tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
* 8003.0004 * GPL SYSTEM BLMCAP   Card is running non-activated GPL
;```
Wait for card to boot and return to the IMT bus. |
| 14 ☐ | Retrieve the GPLs running on the card location. | `rept-stat-gpl:loc=XXXX`

(Where *XXXX* is the location of the standby MASP slot recorded in step 3) |
| 15 ☐ | Response to the card status command is displayed.
Repeat step 14 if valid versions of BPDCM, BPDCM2, or BLMCAP are not displayed. | ```tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
GPL   CARD   RUNNING   APPROVED   TRIAL
EOAM   1113   -----------   -----------   -----------
              BPDCM   YYY-YYY-YYY ALM   XXX-XXX-XXX   XXX-XXX-XXX

Command Completed.
;``` |
| 16 ☐ | Run the target release GPL on the standby MASP | `alw-card:loc=XXXX:code=inactiveprtn`
            (target release downloaded to inactive partition)
or
`alw-card:loc=xxxx`   (target release on MO)

(Where *XXXX* is the location of the standby MASP recorded in step 3) |
| 17 ☐ | Response to command is shown. | ```tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
Card has been allowed.
;``` |
| 18 ☐ | Retrieve status of the MASPs | `rept-stat-gpl:gpl=eoam`   (GPSMII OAM cards)
or
`rept-stat-gpl:gpl=oamhc`   (E5-MCAP OAM cards) |

Procedure 19: Verify Source Database and enter Software Access Key

| 19 ☐ | 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. | ```
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.
;
``` |
|---|---|---|
| 20 ☐ | Perform an OAM role change by booting the active OAM. | **init-card:Loc=xxxx**

(Where *XXXX* is the location of the active MASP recorded in step 3) |
| 21 ☐ | Response to card initialization is shown. | ```
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
;
``` |
| 22 ☐ | Issue command to log back in to the system. | **login:uid=*XXXXXX***
(Where *XXXXXX* is a valid login ID) |
| 23 ☐ | Response to login command is displayed. | ```
tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y
User logged in on terminal X
``` |
| 24 ☐ | Issue the card status to verify the location of the active MASP slot | **rept-stat-card:appl=oam** |
| 25 ☐ | Response to the card status command is displayed.<br><br>Record the card locations of both MASPs:<br><br>Act MASP _____<br><br>Stby MASP ____<br><br>For this sample output, 1113/1114 are active and 1115/1116 are standby. | ```
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.
;
``` |
| 26 ☐ | Inhibit the standby MASP | **inh-card:Loc=xxxx**

(Where *XXXX* is the location of the standby MASP recorded in step 25) |
| 27 ☐<br><br>☐ | Response to the inhibit command is displayed<br><br>Verify UAM 514 is displayed. | ```
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 TTTT PPP  XX.x.x-YY.y.y
** 7991.0514 ** CARD xxxx OAMHC        Standby MASP is inhibited
;
```<br>**Wait for card to boot and return to the IMT bus.** |
| 28 ☐ | Download target release flash to the standby MASP. | **init-flash:loc=xxxx:code=trial**

(Where *XXXX* is the location of the standby MASP recorded in step 25) |

Procedure 19: Verify Source Database and enter Software Access Key

29 ☐ ☐	Response to init-flash command is shown. Verify UAM 0004 is displayed.	```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.
;
tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
*   8003.0004 * GPL SYSTEM BLMCAP   Card is running non-activated GPL
;``` **Wait for card to boot and return to the IMT bus.**
30 ☐	Retrieve the GPLs running on the card location.	`rept-stat-gpl:loc=XXXX` (Where *XXXX* is the location of the standby MASP slot recorded in step 25)
31 ☐	Response to the card status command is displayed. Repeat step 30 if valid versions of BPDCM, BPDCM2, or BLMCAP are not displayed.	``` tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
    GPL   CARD   RUNNING   APPROVED   TRIAL
    OAMHC   1113   -----------   -----------   -----------
           BLMCAP   YYY-YYY-YYY ALM   XXX-XXX-XXX   XXX-XXX-XXX

    Command Completed.
;``` |
| 32 ☐ | Run the target release GPL on the standby MASP | `alw-card:loc=XXXX:code=inactiveprtn`
               (target release downloaded to inactive partition)
or
`alw-card:loc=xxxx`   (target release on the MO)

(Where *XXXX* is the location of the standby MASP recorded in step 25) |
| 33 ☐ | Response to allow card command is shown.

Skip to step 42 to continue the procedure. | ```   tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
    Card has been allowed.
;``` |
| 34a ☐ | If the upgrade source release is 40.4 or earlier but not 40.1, and the target release has been delivered on an MO cartridge. Issue the command to initialize the OAM cards

Skip to step 40. | `init-card:appl=oam`   (target release on the MO cartridge) |
| 34b ☐ | If the upgrade source release is 40.4 or earlier but not 40.1, and the target release has been downloaded to inactive partition. Issue the command to initialize the standby. | `init-card:loc=XXXX:ptrngrp=inactive` (target release downloaded to inactive partition)

(Where *xxxx* is the location of the standby MASP recorded in step 3) |
| 35 ☐ | Response to the initialize command is displayed | ```   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
*   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
;``` |
| 36 ☐ | After the standby MASP is available, issue the card status command to verify the standby MASP | `rept-stat-card:appl=oam` |

Procedure 19: Verify Source Database and enter Software Access Key

37 ☐	Response from the status command is displayed. Verify that the standby MASP is IS-NR.	```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. ;```
38 ☐	Issue the command to initialize the active OAM.	**init-card:loc=XXXX:ptrngrp=inactive** (target release downloaded) (Where *XXXX* is the location of the active MASP recorded in step 3)

39 ☐	Response to the initialize command is displayed	```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
		* 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
		;```

40 ☐	Issue command to log back in to the system.	**login:uid=XXXXXX** (Where *XXXXXX* is a valid login ID)
41 ☐	Response to login command is displayed.	```tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y User logged in on terminal X```
42 ☐	Issue the card status command to verify the target release GPL is running.	**rept-stat-gpl:gpl=eoam** (GPSMII OAM cards) or **rept-stat-gpl:gpl=oamhc** (E5-MCAP OAM cards)
43 ☐ ☐	Response from the status command is displayed. Verify that the GPL versions that are displayed in the "RUNNING" indicate an ALM. The ALM means the running GPL doesn't match the "APPROVED" version. Verify that both OAM cards are running the same GPL version. If not running the correct versions contact the Customer Care Center.	```tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y rept-stat-gpl:gpl=oam Command entered at terminal #10. ; 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 ----------- 4 EOAM 1115 XXX-XXX-XXX ALM YYY-YYY-YYY ----------- Command Completed. ;```
44 ☐	Issue the command to report card status to determine the active OAM.	**rept-stat-card**

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

Procedure 19: Verify Source Database and enter Software Access Key

| 45 | Typical response to rept-stat-card command.

Determine if both MASPs are IS-NR. If not, pause 5 seconds and execute from step 44 again.

Otherwise, determine the active MASP by finding which area of shaded text reports 'active'.
Record the active MASP location: - _____

Note: any 'isolated' cards should be plugged into their slots if possible. | ```
tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y y
CARD   VERSION   TYPE   APPL   PST   SST   AST
1101   022-115-000 LIMV35 SS7ANSI IS-NR   Active   -----
1102   022-115-000 LIMV35 SS7ANSI IS-NR   Active   -----
1103   022-115-000 MCPM   MCP   IS-NR   Active   -----
1104   022-115-000 LIMDS0 SS7ANSI IS-NR   Active   -----
1105   ----------- MCPM   MCP   OOS-MT   Isolated -----
1106   022-112-000 LIMV35 SS7GX25 IS-NR   Active   -----
1107   022-111-000 ACMENET STPLAN IS-ANR   Active   -----
1108   022-115-000 ASM   SCCP   IS-NR   Active   -----
1111   ----------- ASM   SCCP   OOS-MT   Isolated -----
1112   022-115-000 ASM   GLS   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   022-115-000 DCM   IPLIM   IS-NR   Active   -----
Command Completed.
;
``` |
| 46 | If target release is 44.0 or later then, skip to step 48.

Otherwise, issue the Send Message command that performs checks for obsolete cards. | **send-msg:loc=XXXX:ds=1:da=h'1d:f=h'61**
*(Where **XXXX** is the location of the active MASP)*

Note: It is important to enter the correct active MASP location determined in step 45. Incorrect results could be displayed otherwise. |

Procedure 19: Verify Source Database and enter Software Access Key

| 47 | Response to the Send Message command is displayed. Verify the output for the following checks:<br><br>☐ Verify the shaded text (shown) does not indicate any incorrect hardware is found. Unsupported/obsolete cards are indicated with ***. If obsolete cards are shown then this check fails until the target's baseline hardware is installed.<br><br>☐ Verify the shaded text does not indicate any issues found by the TALI or ISUP Normalization check. Otherwise, this procedure fails until corrective actions are taken.<br><br>☐ If the source release is prior to 41.0 then the destination table is searched for x25 domain destinations. If detected, this procedure fails until those destinations are removed.<br><br>☐ The NPP Single Digit Wild Card (SDWC) check determines if more than twenty five SDWC characters are provisioned per NPP Service. Verify the shaded text is not displayed. Otherwise, this procedure fails until NPP Service Sets with filter prefixes (FPFX) containing SDWCs is reduced to twenty five SDWCs exist for the NPP Service.<br><br>☐ If the source release is less than 42.0, the GT Modification check determines if the current GTT configuration exceeds the capacity of the GT MOD table. Verify the shaded text is not displayed. Otherwise, this procedure fails until the corrective actions are made. If the source release is 42 or later, the GT Modification check shall not be performed and no text related to GTMOD Capacity check shall be displayed. | ```
tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y y
System Buffer sent has following attributes :
    Msg Length = H'0010
    Dest Card = H'00fa
    Orig Subsys = H'0001          Dest Subsys = H'0001
    Orig Appl ID = H'0030         Dest Appl ID = H'001d
    Func ID = H'0061              Bus/Ret/Sut = H'0002
    Violation Ind = H'0000
User Message sent to location 1113.
;

tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
IMT Bus Check Started
IMT Bus Check Completed Successfully.

Hardware Validation Test Started
[Dual-Slot DCM Obsolescence Test for IPLIM(x) and IPGW(x) applications.]
[PROM based card Obsolescence Test.]

*** Dual-slot DCM card running IPLIM(x) or IPGW(x) in slot 1201 obsolete
*** PROM based card running SS7ANSI in slot 1203 obsolete

Hardware Validation Test failed, Upgrade can not proceed.

IP Route Conflict Validation Report
No conflicts with Eagle PVN and FCN found
End IP Route Conflict Validation Report.

TALI link present, Upgrade Can Not Proceed.
TALI socket present, Upgrade Can Not Proceed.
ISUP Normilization configuration data present, Upgrade Can Not Proceed.

X25 DPC Validation Report
*** X25 DPC detected 001-002-003, remove DPC
X25 DPC Validation Test Failed.

NPP Service SDWC (Single Digit Wild Card) Test Started
SRVN: tif2      total SDWC count is: 28
NPP Service SDWC Test Failed - Upgrade Can Not Proceed
The maximum SDWC limit per NPP Service is: 25
E4786 Cmd Rej: Max 25 FPFX single digit wildcard chars '?' per NPP service

tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y Upg Phase 0

GTMOD CAPACITY CHECK:

Total GTT entries present = 549697
Total GTT entries with MGTT data = 482634
Total Auto Generated GTMOD entries = 100001

Result: FAILED [Current database exceeds GTMOD table capacity.]
Result: FAILED [Failed Reading GTT TRANS table.]
Result: FAILED [Not enough memory on card.]
;
``` |
| 48 | Issue the Send Message command that checks for possible conflicts of IP addresses configured in the system. | `send-msg:loc=XXXX:ds=1:da=h'1d:f=h'63`
(Where XXXX is the location of the active MASP)

Note: It is important to correctly enter the active MASP location determined in step 45. Otherwise, incorrect results could be displayed.
. |

Procedure 19: Verify Source Database and enter Software Access Key

49	Response to command is displayed. If target release is 40.1 or later but not 40.4, verify that the Fast Copy network A or B address do *NOT* conflict with the Local IP Network address; shaded error text is *NOT* displayed. If conflicts are detected, this procedure fails until changes are made to the local IP network address. If target release is 40.1 or later but not 40.4, verify if the Fast Copy network A or B address do *NOT* conflict with IP Route; shaded error text is *NOT* displayed. If conflicts are detected, this procedure fails until changes are made to the IP Route. If target release is 40.1 or later but not 40.4, verify that the FC network A or B address conflict with the PVN Network address; shaded error text is *NOT* displayed. If conflicts are detected, this procedure fails until changes are made to the PVN. If target release is 42.0 or later, verify that the IP Address Validation check passes. Verify that the shaded error text is *NOT* displayed. If check does not pass, this procedure fails until provisioning changes are made.	``` tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y Upg Phase 0 System Buffer sent has following attributes : Msg Length = H'001c Dest Card = H'00fa Orig Subsys = H'0001 Dest Subsys = H'0001 Orig Appl ID = H'0030 Dest Appl ID = H'001d Func ID = H'0063 Bus/Ret/Sut = H'0002 Violation Ind = H'0000 User Message sent to location xxxx. ; tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y Upg Phase 0 PVN and FC Network Conflict Validation Report PVN conflicts with the FC Network A PVN conflicts with the FC Network B End PVN and FC Network Conflict Validation Report IP Route Conflict Validation Report Local IP network address on card loc=1102 matches Eagle PVN Local IP network address on card loc=1102 matches FC Network A Local IP network address on card loc=1102 matches FC Network B Destination of IP Route on card loc=1102 matches Eagle PVN Destination of IP Route on card loc=1102 matches Eagle FC network A Destination of IP Route on card loc=1102 matches Eagle FC network B End IP Route Conflict Validation Report. tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y Upg Phase 0 IP Address Validation Report Notice: Current Eagle PVN/PVNMASK violate target release provisioning rule Notice: PVN/FCN A IP addresses are same after upgrade Notice: PVN/FCN B IP addresses are same after upgrade Notice: PVN/IP Rte IP address on 1102 are same after upgrade Notice: FCN A/IP Rte IP address on 1102 are same after upgrade Notice: FCN B/IP Rte IP address on 1102 are same after upgrade Notice: PVN/Local IP address on 1102 are same after upgrade Notice: FCN A/Local IP address on 1102 are same after upgrade Notice: FCN B/Local IP address on 1102 are same after upgrade IP Address Validation Result: Fail or Attention Required. ; ```
50	If the upgrade target release is 39.2 or later, issue the command to enter the Software Access Key, else go to step 52. Based upon system configuration use either step 50a, 50b or 50c.	**Note:** If the SAK is not available contact Tekelec Customer Care.
50a	Legacy MASP and the upgrade target release are on the upgrade media (MO).	**chg-upgrade-config:sak=XXXXXXXXXXXXX:src=remove** (Where XXXXXXXXXXXXX is the Software Access Key)
50b	Legacy MASP and the upgrade target release have been downloaded to the fixed disk.	**chg-upgrade-config:sak=XXXXXXXXXXXXX:src=fixed** (Where XXXXXXXXXXXXX is the Software Access Key)
50c	E5-MASP and the upgrade target release have been downloaded to the fixed disk.	**chg-upgrade-config:sak=XXXXXXXXXXXXX:src=fixed** (Where XXXXXXXXXXXXX is the Software Access Key)

Procedure 19: Verify Source Database and enter Software Access Key

| 51 ☐ | Response to command is displayed.<br><br>Verify the command completed successfully and the correct Upgrade target release is output | ```
    tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y
    chg-upgrade-config:sak=XXXXXXXXXXXX:src=zzzzz
    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.
;
``` |
|---|---|---|
| 52 ☐ | **If necessary, remove the removable media from the drive and secure in safe location until execution of upgrade.** | |
| 53 ☐ | 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 55 | **set-mem:paddr=h'***YYYYYY***:byte=1:loc=***XXXX***

(Where *XXXX* is the location for the Standby MASP &
     YYYYYY is the address specified in Table 5.)** |
| 54 ☐ | Response to the command is displayed.<br><br>Repeat steps 53 – 54 for active MASP. | ```
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    Command Completed.
;
``` |

Eagle (target) Release[5]	BLMCAP version	Address (YYYY)
42.0.0		
42.0.1		
42.0.2		
42.0.3	133.38.17	h'915550
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 5: Memory Address by Eagle release.

55 ☐	Issue the command to initialize the active and standby MASP cards so that they are running the source release software.	**init-card:appl=oam**
| 56 ☐ | Response to the initialize-card command is displayed | ```
    tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
    init-card:appl=oam
    Command entered at terminal #X.
;
``` |
| 57 ☐ | Issue command to log back in to the system. | **login:uid=***XXXXXX***
  (Where *XXXXXX* is a valid login ID)** |

---

[5] 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 19: Verify Source Database and enter Software Access Key

58 ☐ ☐	Response to login command is displayed. Record the system time and time zone from the output header: Time: _____ Date: _____ Time zone: _____ Record the current local time and calculate the duration of this procedure (subtract the local time recorded in step 3 from the current local time: Current Local Time: _____ Procedure duration: _____	``` tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y User logged in on terminal X ```
59 ☐	Reset the system time and time zone if necessary[6]. If the system time zone recorded in the previous step is different than the time zone recorded in step 3 of this procedure. Or, the delta between the system time record in the previous step and that recorded in step 3 is not equal to the procedure duration recorded in the previous step then the system time needs to be reset.	**set-time:time=HHMM:tz=zzzz** (where HHMM is hour and minute recorded in step 3, plus the procedure duration time recorded in the previous step) (where zzzz is the time zone recorded in step 3)
60 ☐	Response to set-time command is displayed.	``` 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. ; ```
61 ☐	Reset the system date if necessary. If system date is not the same as that recorded in step 3 change it now.	**set-date:date=yymmdd** (where yymmdd is the value recorded in step 3, account for date change if execution spans a time rollover)
62 ☐	Response to set-date command is displayed.	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y set-date:date=yymmdd Command entered at terminal #10. ; ```
63 ☐	Issue the command to report card status.	**rept-stat-card**

---

[6] System date, time and time zone may change due to PR 157613, time needs to be reset.

Procedure 19: Verify Source Database and enter Software Access Key

64 ☐	Typical response to card status command. Note: Compare this output with the rept-stat-card done prior to booting the target EOAM. The display should be the same.	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1101 022-115-000 LIMV35 SS7ANSI IS-NR Active ----- 1102 022-115-000 LIMV35 SS7ANSI IS-NR Active ----- 1103 022-115-000 MCPM MCP IS-NR Active ----- 1104 022-115-000 LIMDS0 SS7ANSI IS-NR Active ----- 1105 ----------- MCPM MCP OOS-MT Isolated ----- 1106 022-112-000 LIMV35 SS7GX25 IS-NR Active ----- 1107 022-111-000 ACMENET STPLAN IS-ANR Active ----- 1108 022-115-000 ASM SCCP IS-NR Active ----- 1111 ----------- ASM SCCP OOS-MT Isolated ----- 1112 022-115-000 ASM GLS 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 022-115-000 DCM IPLIM IS-NR Active ----- Command Completed. ; ```
65 ☐	Issue the command to report trouble status.	`rept-stat-trbl:display=timestamp`

66 ☐	Response to trouble status command is displayed.
	
	Record any non-network alarms.
	
	Alarm _____
		``
		tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
		Searching devices for alarms...
		;
		tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
		SEQN UAM AL DEVICE ELEMENT TROUBLE TEXT
		5728.0048 * TERMINAL 14 Terminal failed
		             98-03-09 10:05:36
		5729.0048 * TERMINAL 15 Terminal failed
		             98-03-09 10:05:36
		5730.0155 * DLK 1107,A STPLAN connection unavailable
		             98-03-09 13:57:40
		5731.0013 ** CARD 1214 SS7ANSI Card is isolated from the system
		             98-03-09 13:57:40
		5604.0013 ** CARD 1111 SCCP Card is isolated from the system
		             98-03-09 13:57:40
		5732.0236 ** SLK 1214,A lsn1214 REPT-LKF: not aligned
		             98-03-09 13:57:40
		5733.0236 ** SLK 1214,B lsn1214 REPT-LKF: not aligned
		             98-03-09 13:57:40
		5734.0236 ** SLK 1106,A lsnx1 REPT-LKF: not aligned
		             98-03-09 13:57:40
		5735.0318 ** LSN lsn1214 REPT-LKSTO: link set prohibited
		             98-03-09 13:57:40
		5736.0318 ** LSN lsnx1 REPT-LKSTO: link set prohibited
		             98-03-09 13:57:40
		Command Completed.
		;
		``

67 ☐	All steps in this procedure were completed.	

3.20 Verifying Fixed and Removable Media (Part 1)

Procedure 20: Verifying Fixed Disks Functions with TST-DSK

S T E P #	This procedure verifies that EAGLE fixed disks and removable disk\drive are accessible and in proper working order. Disks\drives are exercised by issuing test disk and backup commands. If no on-site personnel are available and the removable drive is not inserted then this procedure needs to be rescheduled. **Estimated time for completion: up to 2.5 hours**	
1 ☐	Issue the command to backup to the fixed disk.	`chg-db:action=backup`

2 ☐	Response to backup command is displayed.	`sysint211 98-03-09 17:59:25 EST Rel XX.x.x`
		`7706.1114    CARD 1115    Database BACKUP started`
		`              Report Date:98-03-09  Time:17:59:25`
		`;`
		
		`sysint211 98-03-09 17:59:44 EST Rel XX.x.x`
		`BACKUP (FIXED): MASP B - Backup starts on active MASP.`
		`;`
		
		`sysint211 98-03-09 18:04:08 EST Rel XX.x.x`
		`BACKUP (FIXED): MASP B - Backup on active MASP to fixed disk complete.`
		`;`
		
		`sysint211 98-03-09 18:04:08 EST Rel XX.x.x`
		`BACKUP (FIXED): MASP B - Backup starts on standby MASP.`
		`;`
		
		`sysint211 98-03-09 18:07:59 EST Rel XX.x.x`
		`BACKUP (FIXED): MASP B - Backup on standby MASP to fixed disk complete.`
		`;`

3 ☐	**If not already inserted, insert the source removable media drive/cartridge into the system**	`If inserting the MO cartridge wait for the cartridge to spin up`
4 ☐	Issue the command to backup to the removable. Otherwise, procedure needs to be rescheduled.[7]	`chg-db:action=backup:dest=remove`

5 ☐ ☐	Response to backup command is displayed.
	
	Record which MASP is active:
	
	A or B: _____
	
	If A, then 1113/1114 are active. If B, than 1115/1116 is active.
		`tekelecstp 98-01-26 09:21:21 EST Rel XX.x.x`
		`BACKUP (REMOVABLE): MASP A - Backup starts on active MASP.`
		`;`
		
		`tekelecstp 98-01-26 09:21:21 EST Rel XX.x.x`
		`0465.1114    CARD 1113    Database BACKUP started`
		`              Report Date:98-03-31  Time:00:02:03`
		`;`
		
		`tekelecstp 98-01-26 09:21:23 EST Rel XX.x.x`
		`BACKUP (REMOVABLE): MASP A - Backup to removable cartridge complete.`
		`;`
		
		`tekelecstp 98-01-26 09:29:13 EST Rel XX.x.x`
		`0466.1116    CARD 1113    Database action ended - OK`
		`              Report Date:98-03-31  Time:00:05:08`
		`;`

6a ☐	If system running legacy MASP, issue the command to copy GPLs from the active TDM to the removable cartridge.	`copy-gpl:sloc=XXXX:dloc=1117` *(Where XXXX is the active TDM – 1114 or 1116)*
6b ☐	If system running E5-MASP, issue the command to copy GPLs from active TDM to removable drive.	`copy-gpl:sloc=XXXX:ddrv=remove`

7 ☐	Response to copy GPL command is displayed
	
	Verify command completes successfully.
		`tekelecstp 98-01-26 09:29:39 EST Rel XX.x.x`
		`COPY GPL:  MASP Y - COPY STARTS ON ACTIVE MASP`
		`COPY GPL:  MASP Y - COPY TO REMOVABLE CARTRIDGE COMPLETE`
		`(Where Y is the active MASP – A or B)`
		`;`

---

[7] A removable media drive needs to be inserted to complete the procedure. If the drive cannot be inserted, go to step 6 however this procedure fails.

Procedure 20: Verifying Fixed Disks Functions with TST-DSK

8a ☐	If system running legacy MASP, remove the removable cartridge from the MDAL. Update the label with the release and database level. Store in a safe place for later use.	
8b ☐	If system running E5-MASP, remove the removable drive from the active MASP. Update the label with release and database level. Store in a safe place for later use.	

9 ☐	Issue the commands to display disk directory of the TDM.	`disp-disk-dir:loc=XXXX`
		
		`(where XXXX is the standby TDM)`
| **10** ☐ | Response to the display command is displayed.<br><br>Verify command completes successfully.<br><br>*Note that the output data may vary from this example.* | ```
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    disp-disk-dir:loc=XXXX
    Command entered at terminal #X.
;
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    DISP-DISK-DIR, Loc=XXXX, Dev = FIXED(Standby), Dir = :\
    Filename  Ext       Length   Last Modified     Cluster        LBA
    DMS1024   CFG        32768   03-18-38 16:48       2050    8386475
    EOAM      ELF      6291456   03-18-38 16:48       2051    8386539
    TEOAM     ELF      6291456   03-18-38 16:48       2243    8398827
    IPASP     TBL       262090   03-18-38 16:48       2435    8411115
    DBSTAT    BKP           46   03-18-38 16:48       2443    8411627
    DBSTAT    TBL           46   03-18-38 16:48       2444    8411691

 (additional files listed …)

  File(s) : 350   Bytes : 1074004184
  Volume : FIXED DISK
  Bytes free : 2133887744
  Disk Size (MB) : 35003
;
``` |

Procedure 20: Verifying Fixed Disks Functions with TST-DSK

11 ☐	Issue this command to test the Fixed Disk[8].	`tst-disk:loc=XXXX:partition=all` *(where XXXX is the standby TDM)*
| 12a ☐ ☐ | Response to the TST-DISK command is displayed.<br><br>Progress indicator is displayed every five minutes.<br><br>Verify that there are no errors and retries are indicated.<br><br>Estimated command execution times on a legacy system are 1 hour 45 minutes (9 GB disk) or 2 hours 37 minutes (18 GB disk). | ```
    tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y
     TST-DISK:  TDM XXXX in progress YYYYY of ZZZZZZ LBA read
;

    tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y
    TST-DISK results for TDM XXXX
    Total LBAs = 524286    LBA size = 512
    Retries   = 0    Errors   = 0
;
``` |
| 12b ☐ ☐ | Response to the test disk command is displayed.<br><br>Verify that there are no errors and retries are indicated.<br><br>This command will complete in less than a minute. | ```
    tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y

        TST-DISK RESULTS:
        Total clusters: 149949
        Free Clusters: 149949
        Bad Clusters: 0
        Total Free Space: 599796
        Max. Contiguous Free Space: 517336
        Files: 431
        Folders: 0
        Bytes in Files: 1323558
        Lost Chains: 0
        Bytes in Lost Chains: 0
;
``` |
| 13 ☐ | If on a legacy system, repeat Steps 9-12 for the active TDM. If this is the second pass, skip to Step 21. Otherwise, continue to next step. | |
| 14 ☐ | Issue the command to initialize the active OAM. | `init-card:loc=XXXX`

(Where **XXXX** is the location of the active E5-MASP) |
| 15 ☐ | Response to the initialize command is displayed | ```
    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
*   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
;
``` |
| 16 ☐ | If on an E5-OAM system, issue the command to log in to the EAGLE terminal. | `login:uid=XXXXX`
(Where XXXXX is your login ID) |
| 17 ☐ | Response to login command is displayed. | ```
    tekelecstp YY-MM-DD hh:mm:ss TTTT PPP  XX.x.x-YY.y.y
    User logged in on terminal X
;
``` |
| 18 ☐ | Issue the command to activate capture. | `act-echo:trm=P`
(Where P is a terminal port used in Procedure 3.2, Step 5) |

---

[8] On legacy systems, to minimize the execution time, the user may issue the TST-DISK commands for both TDMs concurrently. During Step 12, the user may hit the F9 function key and continue with Procedure 20. DO NOT continue past Step 13 until *both* commands complete.

Procedure 20: Verifying Fixed Disks Functions with TST-DSK

| 19 ☐ | Response to activate command is displayed. | ```tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
act-echo:trm=P
Command entered at terminal #X.
;

tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
Scroll Area Output will be echoed to Terminal X.
;``` |
|---|---|---|
| 20 ☐ | Repeat Steps 9-12 for the formerly-active TDM. | |
| 21 ☐ | All steps in this procedure were completed. | |

3.21 Testing IMT Status

Procedure 21: Testing IMT Buses

S T E P #	This procedure tests that the IMT Buses are healthy. This procedure should be executed in a maintenance window. If it cannot be done in a maintenance window, then this procedure needs to be rescheduled.	
1 ☐	Issue the command to report the status of the IMT buses.	`rept-stat-imt:mode=full`

2 ☐	Response to report IMT status command is displayed.	```tekelecstp YY-MM-DD HH:MM:SS tzone Rel 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.`
		`;`

3 ☐	If in a maintenance window, issue the command to inhibit the IMT bus.	`inh-imt:bus=A`

4 ☐	Response to inhibit IMT bus command is displayed.	``` tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y```
		`   Inhibit IMT Bus A command issued`
		`;`
		
		`   tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y`
		`   0401.0098    IMT BUS A              IMT inhibited`
		`;`

5 ☐	Issue the command to test the IMT bus.	`tst-imt:bus=A` **(running Eagle release 41.4 or below)** or `tst-imt:type=faulttest:bus=A` **(running Eagle release 42.0 or higher)**

6 ☐
 	
☐
	Response to test IMT bus command is displayed.
	
	"Test Passed" message displayed.
		``` tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y```
		
		`   IMT Fault Isolation Bus A`
		`   Fault Location     Probable Cause    Failure(s)`
		`   No Faults Found`
		`                                      `All Tests Passed
		`;`

7 ☐	Issue the command to allow the IMT bus.	`alw-imt:bus=A`

8 ☐	Response to allow IMT bus command is displayed.	``` tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y```
		`   Allow IMT Bus A command issued`
		`;`
		
		`   tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y`
		`   0403.0097    IMT BUS A              IMT allowed`
		`;`

9 ☐	If running release is 42.0, issue the command for the Extended BERT test.	`tst-imt:type=extbert:time=10:bus=A`

10 ☐	Response to test IMT bus command is displayed.
	Otherwise, error "E4765 Cmd Rej: Obsolete MUX cards detected in the system" is displayed when the hardware is invalid for this command.
		``` tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y```
		`   Extended BERT: Command in progress...`
		`;`
		
		`   tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y`
		`   Extended BERT: Target Bus A will be inhibited`
		`;`
		
		`   tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y`
		`   5042.0098    IMT BUS A              IMT inhibited`
		`;`
		
		`   tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y`
		`   Extended BERT: Active MASP will be reconnected on Bus A`
		`;`

Procedure 21: Testing IMT Buses

| ☐ | "PASS" messages displayed in BERT Status column. | ```text
       tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y
       Extended BERT: Extended processing time required.
       Results will be displayed on test completion.
    ;

       tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y
       Command Completed.

    After 10 minutes:

       tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y
       Extended Bit Error Rate Test Bus A
       MAX ERROR = 20       TIME = 00:10:00     START TIME = 12:10:30
       TEST STATUS = PASS

       CARD  TYPE        SERIAL_NUMBER      BERT_STATUS BIT_ERROR ERRORED_SEC DURATION
       1110  HIPR2       10208345012        PASS         3         2          01:00:00
       1210  HIPR2       10208345031        PASS         2         1          01:00:00
       1310  HIPR2       10208345052        PASS         5         3          01:00:00
    ;

       tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y
       Extended BERT: Target Bus A will be allowed
    ;

       tekelecstp YY-MM-DD HH:MM:SS tzone Rel XX.X.X-YY.Y.Y
       5042.0098    IMT BUS A                 IMT allowed
    ;
    ``` |
| **11** ☐ | Issue the status command for the IMT buses. | **`rept-stat-imt:mode=full`** |
| **12** ☐<br><br>☐ | Response to IMT bus status command is displayed.<br><br>Verify that bus has returned to IS-NR. | ```text
    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.
    ;
    ``` |
| **13** ☐ | Repeat Steps 3 – 12 for IMT Bus B. | Repeat command in order to test IMT Bus B |
| **14** ☐ | All steps in this procedure were completed. | |

3.22 Verifying Fixed and Removable Media (Part 2)

Procedure 22: Verifying Fixed Disks and Removable Media Function with TST-DISK

STEP #			
	This procedure verifies that EAGLE fixed disks and removable media are accessible and in proper working order. Disks will be exercised by issuing test disk and backup commands. If no on-site personnel are available to insert the source release removable media then this procedure needs to be rescheduled. This procedure must be done in a maintenance window. **Estimated time for completion: up to 2.5 hours**		
1 ☐	Verify that a **source release removable media** is inserted in the system. If in a maintenance window, issue the command to display card status.	`rept-stat-card:appl=oam`	
2 ☐ ☐	Response to card status command is displayed. Determine which MASP is currently Standby by looking in the column labeled SST next to the cards labeled OAM. Record the locations of the MASPs: Active MASP _____ Standby MASP _____	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD VERSION TYPE APPL PST SST AST 1113 XXX-XXX-XXX GPSM EOAM IS-NR Standby ----- 1115 XXX-XXX-XXX GPSM EOAM IS-NR Active ----- Command Completed. ; ```	
3a ☐	If MASP comprised of GPSM\TDM cards, remove Standby TDM from the system.	☐ Remove the card in the standby GPSM slot determined in step 2. (GPSM is reinserted later, so unseating the card is sufficient.) ☐ Remove the standby TDM card determined in step 2.	
3b ☐	If MASP is E5MASP remove Standby E5MASP from the system.	☐ Slide the MASP H/S switch (SW3) on the standby MASP up to the unlocked position (Wait for all drive LEDs to transition to a steady blue). ☐ Remove the standby E5MASP card determined in step 2	
4 ☐	Issue the command to report clock status.	`rept-stat-clk:mode=full`	
5a ☐ ☐ ☐	Response to clock status command is displayed. Verify that BITS clock for the TDM just removed is Isolated. Verify that all cards are using the clock on the other TDM.	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y CARD LOC = 1114 (Isolated) CARD LOC = 1116 (Active) PRIMARY BITS = ----- PRIMARY BITS = Active SECONDARY BITS = ----- SECONDARY BITS = Idle PST SST AST SYSTEM CLOCK IS-NR Idle ----- # Cards using CLK A = 0 # Cards with bad CLK A = Z # Cards using CLK B = Z # Cards with bad CLK B = 0 # Cards using CLK I = 0 PST SST AST HS SYSTEM CLOCK IS-NR ACTIVE ALMINH # Cards using HSCLK A = 000 # Cards with bad HSCLK A = 00Z # Cards using HSCLK B = 00Z # Cards with bad HSCLK B = 000 # Cards using HSCLK I = 000 Command Completed. ; ```	
5b ☐ ☐	Response to clock status command is displayed. Verify that all cards are using the clock on the other E5MASP.	``` tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y COMPOSITE PST SST AST SYSTEM CLOCK IS-ANR Idle ----- ALARM STATUS = No Alarms. Primary Comp Clk 1114 (CLK A) IS-NR Active Primary Comp Clk 1116 (CLK B) IS-NR Idle Secondary Comp Clk 1114 (CLK A) IS-NR Idle Secondary Comp Clk 1116 (CLK B) IS-NR Idle Clock Using Bad CLK A 3 0 CLK B 0 3 CLK I 0 -- ```	

Procedure 22: Verifying Fixed Disks and Removable Media Function with TST-DISK

<table>
<tr><td></td><td></td><td></td><td>

```
HIGH SPEED                                 PST        SST       AST
    SYSTEM CLOCK                         IS-NR       Idle     -----
ALARM STATUS = No Alarms.
    Primary HS Clk 1114   (HS CLK A)     IS-NR       Active
    Primary HS Clk 1116   (HS CLK B)     IS-NR       Idle
    Secondary HS Clk 1114(HS CLK A)      IS-NR       Idle
    Secondary HS Clk 1116(HS CLK B)      IS-NR       Idle

HS CLK TYPE 1114      = RS422
HS CLK LINELEN 1114 = -----
HS CLK TYPE 1116      = RS422
HS CLK LINELEN 1116 = -----

Clock       Using       Bad
HS CLK A    0           0
HS CLK B    0           0
HS CLK I    0           --

Cards with bad clock source:
CARD            CLK A       CLK B       HS CLK A    HS CLK B
--------------------------------------------------------------
1103            Active      Fault       -----       -----
1105            Active      Fault       -----       -----
1113            Active      Fault       -----       -----


Command Completed.
;
```
</td></tr>

<tr><td>6a ☐</td><td>If MASP comprised of GPSM/TDM cards, place spare TDM in system.</td><td>☐

☐</td><td>Insert the spare TDM card.

Insert (re-seat) the card in the GPSM slot.
      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.</td></tr>

<tr><td>6b ☐</td><td>If MASP is E5MASP place spare E5MASP in system.[9]</td><td>☐

☐</td><td>Insert the spare E5MASP card

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).</td></tr>

<tr><td>**7** ☐</td><td>Display database version information.</td><td colspan="2">**rept-stat-db:display=version**</td></tr>

<tr><td>8 ☐

☐</td><td>Verify that the standby TDM contains the same database version as the active.

If the database version on the standby disk is not the same as the active disk, stop the procedure and contact the Customer Care Center.</td><td colspan="2">

```
tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
DATABASE STATUS: >> NOT OK (DMS) <<
    TDM 1114 ( STDBY)                TDM 1116 ( ACTV )
            C LEVEL  TIME LAST BACKUP       C  LEVEL  TIME LAST BACKUP
            - -----  --------------------   -  ------  ----------------------
FD BKUP Y    ZZZ  YY-MM-DD hh:mm:ss EST  Y     XXX YY-MM-DD hh:mm:ss EST
FD CRNT Y    ZZZ  DIFF LEVEL             Y     XXX
        MDAL 1117
        - --------
RD BKUP Y    XXX  YY-MM-DD hh:mm:ss EST

CARD/APPL   LOC   C  T  LEVEL       TIME LAST UPDATE   VERSION STATUS
---------   ----  -  -  --------    ----------------   -------------------
TDM-CRNT    1114  Y  N  ZZZ         YY-MM-DD hh:mm:ss  XXX-XXX-XXX  NORMAL
TDM-BKUP    1114  Y  -  ZZZ         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  -  -  -           -         -             -        -
;
```
</td></tr>

<tr><td>**9** ☐</td><td>Issue the command to verify the GPL versions.</td><td colspan="2">**rtrv-gpl**</td></tr>

<tr><td>10 ☐

☐</td><td>Response to retrieve GPL command is displayed.

Verify the column between the Approved and Trial shows no alarms for the Standby TDM that was</td><td colspan="2">

```
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
UTILITY   1114  XXX-XXX-XXX  XXX-XXX-XXX    XXX-XXX-XXX  XXX-XXX-XXX
UTILITY   1116  XXX-XXX-XXX  XXX-XXX-XXX ALM XXX-XXX-XXX  -----------
OAM       1114  XXX-XXX-XXX  XXX-XXX-XXX    XXX-XXX-XXX  XXX-XXX-XXX
OAM       1116  XXX-XXX-XXX  XXX-XXX-XXX    XXX-XXX-XXX  -----------
```
</td></tr>
</table>

[9] Refer to TSB TN002746 in regards to removing the removable media before inserting the E5-MASP.

Procedure 22: Verifying Fixed Disks and Removable Media Function with TST-DISK

| | recorded in Step 2. If an alarm is found, go to step 11. Otherwise, go to Step 13. | ```
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  -----------
SCCP     1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  XXX-XXX-XXX
SCCP     1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
SS7ANSI  1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  XXX-XXX-XXX
SS7ANSI  1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
CCS7ITU  1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  XXX-XXX-XXX
CCS7ITU  1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
SS7GX25  1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  XXX-XXX-XXX
SS7GX25  1116  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  -----------
STPLAN   1114  XXX-XXX-XXX  XXX-XXX-XXX      XXX-XXX-XXX  XXX-XXX-XXX
STPLAN   1116  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  -----------
;
``` |
| **11** ☐ | Issue the command to copy GPLs. | `copy-gpl:sloc=1117:dloc=XXXX`   (legacy MASP)
(where XXXX is the standby TDM recorded in step 2)
or
`copy-gpl:sloc=yyyy:dloc=XXXX`   (E5MASP)
(where yyyy is the active MASP(1113/1115) and XXXX is the standby TDM (1114/1116) location recorded in step 2) |
| **12** ☐ ☐ | Response to copy GPL command is displayed.<br><br>Verify command completes successfully. | ```
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    COPY GPL:  MASP B - COPY STARTS FROM REMOVABLE CARTRIDGE TO STANDBY TDM
    COPY GPL:  MASP B - COPY TO STANDBY TDM COMPLETE
;
``` |
| **13** ☐ | Issue the command to repair the standby disk. | `chg-db:action=repair` |
| **14** ☐ | Response to repair command is displayed.<br><br>**This command may take up to 45 minutes to complete** | ```
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    BACKUP (FIXED): MASP B - Repair starts on standby MASP.
;

    sysint211 98-03-09 18:07:59 EST Rel XX.X.X
    BACKUP (FIXED): MASP B - Repair on standby MASP to fixed disk complete.
``` |
| **15** ☐ | Issue the commands to display disk directory of the standby MASP. | `disp-disk-dir:loc=XXXX`

(where XXXX is the standby MASP disk slot) |
| **16** ☐ ☐ | Response to disp-disk-dir command is displayed.<br><br>Verify command completes successfully.<br><br>Note that the output data may vary from this example. | ```
    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    disp-disk-dir:loc=XXXX
    Command entered at terminal #X.
;

    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
    DISP-DISK-DIR, Loc=XXXX, Dev = FIXED(Active), Dir = :\
    Filename  Ext      Length   Last  Modified    Cluster       LBA
    DMS1024   CFG       32768   03-18-38 16:48       2050   8386475
    EOAM      ELF     6291456   03-18-38 16:48       2051   8386539
    TEOAM     ELF     6291456   03-18-38 16:48       2243   8398827
    IPASP     TBL      262090   03-18-38 16:48       2435   8411115
    DBSTAT    BKP          46   03-18-38 16:48       2443   8411627
    DBSTAT    TBL          46   03-18-38 16:48       2444   8411691

 (additional files listed …)

    File(s) : 350   Bytes : 1074004184
    Volume : FIXED DISK
    Bytes free : 2133887744
    Disk Size (MB) : 35003
;
``` |
| **17** ☐ | Issue this command to test the fixed disk. | `tst-disk:partition=all:loc=XXXX`

(where XXXX is the standby MASP disk slot recorded in step 2) |

Procedure 22: Verifying Fixed Disks and Removable Media Function with TST-DISK

18a ☐ ☐	Response to the test disk command is displayed. Progress indicator is displayed every five minutes. Verify that there are no errors and retries are indicated. For legacy system, command execution times can range from 1 hour to 2 and half hours.	```tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y` `TST-DISK: TDM 1114 in progress XXXXX of YYYYYY LBA read` `;` `tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y` `TST-DISK results for TDM 1114` `Total LBAs = 524286 LBA size = 512` `Retries = 0 Errors = 0` `;```
18b ☐ ☐	Response to the test disk command is displayed. Verify that there are no errors and retries are indicated. This command will complete in less than a minute.	```tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y`  ` TST-DISK RESULTS:` ` Total clusters: 149949` ` Free Clusters: 149949` ` Bad Clusters: 0` ` Total Free Space: 599796` ` Max. Contiguous Free Space: 517336` ` Files: 431` ` Folders: 0` ` Bytes in Files: 1323558` ` Lost Chains: 0` ` Bytes in Lost Chains: 0` `;```
19 ☐	Issue the commands to display disk directory of the removable media.	**disp-disk-dir:loc=1117** **(legacy MASP)** or **disp-disk-dir:loc=xxxx:src=remove (E5MASP)** *(Where XXXX is the active MASP)*
20 ☐	Response to disp-disk-dir command is displayed. Verify command completes successfully. *Note that the output data may vary from this example.*	```tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y` `DISP-DISK-DIR, Loc=1117, Dev = FIXED(Active), Dir = :\` `Filename Ext Length Last Modified Cluster LBA` `DMS1024 CFG 32768 03-18-38 16:48 2050 8386475` `EOAM ELF 6291456 03-18-38 16:48 2051 8386539` `TEOAM ELF 6291456 03-18-38 16:48 2243 8398827` `IPASP TBL 262090 03-18-38 16:48 2435 8411115` `DBSTAT BKP 46 03-18-38 16:48 2443 8411627` `DBSTAT TBL 46 03-18-38 16:48 2444 8411691`  `(additional files listed …)`  ` File(s) : 350 Bytes : 1074004184` ` Volume : FIXED DISK` ` Bytes free : 2133887744` ` Disk Size (MB) : 35003` `;```
21 ☐	Issue this command to test the removable media.	**tst-disk:loc=1117** **(legacy MASP)** or **tst-disk:disk=remove:loc=xxxx (E5MASP)** *(Where XXXX is the active MASP)*
22 ☐ ☐	Response from the tst-disk command is displayed. For legacy system, the nominal command execution time is 20 minutes. For E5OAM system, execution time is under a minute. Verify that there are no errors and no retries indicated in output.	```tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y` `tst-disk:Loc=1117` `Command entered at terminal #X.` `;` `tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y` `TST-DISK results for TDM 1117` `Total LBAs = 524286 LBA size = 512` `Retries = 0 Errors = 0` `;`  `Note: for example of E5OAM output, refer to step 18b```
23 ☐	Remove the removable media from the system and place in a safe place.	

Procedure 22: Verifying Fixed Disks and Removable Media Function with TST-DISK

24	Issue the initialize card command for the active MASP.	`init-card:loc=XXXX` *(where for the first time executing this command, XXXX is the location of the active MASP recorded in step 2;* *where for the second time executing this command, XXXX is the location of the standby MASP recorded in step 2)*

25	Response to the initialize command is displayed.	```
		    tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
		* 0261.0013 * CARD XXXX OAM 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 OAM Card is present
		            ASSY SN: xxxxxxxx
		;
		``

26	Issue the command to log in to the EAGLE terminal.	`login:uid=XXXXXX` *(where XXXXXX is your login ID)*

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

28	Issue the command to activate capture. Refer to Section 2.1.2 for information on how to set up terminals for data capture.	`act-echo:trm=P` *(where P is a terminal port used in Procedure 3.2, Step 5)*

29	Response to activate command is displayed.	```
		    tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
		    act-echo:trm=P
		    Command entered at terminal #X.
		;
		
		    tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y
		    Scroll Area Output will be echoed to Terminal X.
		;
		``

30	Issue the command to report the status of the MDAL.	`rept-stat-card:loc=1117`

31	Response to the status command is displayed.
	
	Verify that status is IS-NR.
		``
		    tekelecstp YY-MM-DD hh:mm:ss EST PPP XX.x.x-YY.y.y
		    CARD VERSION TYPE APPL PST SST AST
		    1117 ---------- MDAL IS-NR Active -----
		    Command Completed.
		;
		``

32	Repeat Steps 24 – 31. If second time executing this step, continue to next step.	
33	Inhibit the standby MASP so that the spare MASP may be removed from the system.	`inh-card:loc=XXXX` *(where XXXX is the location of the standby MASP.)*

34	Response to the inhibit command is displayed
	
	Verify UAM 514 is displayed.
		``
		    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 TTTT PPP XX.x.x-YY.y.y
		** 7991.0514 ** CARD xxxx OAMHC Standby MASP is inhibited
		;
		``
		Wait for card to boot and return to the IMT bus.

Procedure 22: Verifying Fixed Disks and Removable Media Function with TST-DISK

35a ☐	If MASP comprised of GPSM\TDM cards, remove Standby TDM from the system. And place spare TDM that was removed from the system in step 3 into the system	☐	Remove the card in the standby GPSM slot specified in Step 24. (GPSM is reinserted later, so unseating the card is sufficient.)
		☐	Remove the standby TDM card associated with the GSPM specified in Step 24.
		☐	Insert the spare TDM card.
		☐	Insert (re-seat) the card in the GPSM slot. **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.
35b ☐	If MASP is E5MASP remove Standby E5MASP from the system.	☐	Slide the MASP H/S switch (SW3) on the standby MASP up to the unlocked position (Wait for all drive LEDs to transition to a steady blue).
		☐	Remove the standby E5MASP card; the location specified in Step 24
		☐	Insert the spare E5MASP card
		☐	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).
36 ☐	Issue the allow card to bring the standby MASP in service.		`alw-card:loc=xxxx` *(Where XXXX is the location of the standby MASP specified in step 32)*
37 ☐	Response to allow card is displayed.		``` tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y Card has been allowed. ; tekelecstp YY-MM-DD hh:mm:ss TTTT PPP XX.x.x-YY.y.y 1798.0014 CARD XXXX OAM Card is present ASSY SN: 10202081389 ; ```
38 ☐	Display database version information.		`act-upgrade:action=dbstatus`
39 ☐ ☐ ☐	Verify that the standby MASP contains the same database version as the active. **If the database version on the standby disk is not the same as the active disk, first repeat previous step and then contact the Customer Care Center.** If target release was downloaded, verify the version of the inactive partition is that of the upgrade target release, the database level is "1" and the coherency is "Y". If otherwise, contact the Customer Care Center.		``` 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 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 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 ; ```
40 ☐	All steps in this procedure were completed.		

3.23 Table Capacity Status

The following procedure is for data collection only. It does not have any pass fail criteria and does not include command response output.

Procedure 23: Collect Table Capacity Status

S T E P #	This procedure collects the current capacity of certain database tables. Upon analysis of the health check data capture, it is Tekelec's goal to identify if table capacity is approaching any limitation prior to any impact on the EAGLE's performance. **Estimated time for completion: up to 5 – 15 minutes**	
1 ☐	Issue the following command.	`rtrv-ls`
2 ☐	Issue the following command.	`rtrv-tbl-capacity`
3 ☐	Issue the following command.	`rept-stat-sys`
4 ☐	If EGTT feature is on, go to Step 6. If GTT feature is on (refer to Procedure 3.2, Step 12), issue the following command. Otherwise, go to the end of this procedure	`rtrv-tt`
5 ☐	Issue the following command.	`rtrv-gtt:type=XX` *(where XX is any Type displayed in step 4)*
6 ☐	If any LNP feature is on, issue the following command.	`rtrv-lnp-serv`
7 ☐	Issue the following command.	`rtrv-cspc`
8 ☐	Issue the following command.	`rtrv-npp-srs`

3.24 Verification of the IP Database

The following procedure retrieves IP signaling information for verification of the IP database. It is for data collection only and does not have any pass fail criteria. IP command provisioning rules changed in release 34.0. The object of this procedure is to collect information necessary to validate the IP database.

 The retrieve command outputs shown in this procedure are only examples.   The actual data retrieved and displayed from your system will vary.

Procedure 24: Verification of the IP Database

S T E P #	This procedure collects data from tables in the IP database. Upon analysis of the health check data capture, it is Tekelec's goal to validate the IP database and identify any invalid or unsupported references, which could impact the upgrade. This procedure should be executed when upgrading to target release 34.0 and above.
	To ensure accuracy, it is strongly suggested that data capture be active during this procedure because the information produced here will be used to guide removal of unsupported IP database references.
	Estimated time for completion: 15 minutes. Completion time for this procedure may vary depending on the size of the IP database.

1 ☐	**Execute steps 2 – 20 only if the target release is between 34.0 and 38.0.** Otherwise, go to the end of this procedure.	
2 ☐	Issue the command to report card status	`rept-stat-card:appl=iplim`

3 ☐ ☐	Response to card status command is displayed.
	
	Repeat steps 2 – 3 where APPL = IPLIMI.
	
	If no IPLIM or IPLIMI cards are displayed, go to step 6.
		```tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y```
		```CARD VERSION TYPE GPL PST SST AST```
		```1201 xxx-xxx-xxx DCM IPLIM IS-NR Active -----```
		```1202 xxx-xxx-xxx DCM IPLIM IS-NR Active -----```
		```1205 xxx-xxx-xxx DCM IPLHC IS-NR Active -----```
		```1206 xxx-xxx-xxx DCM IPLHC IS-NR Active -----```
		
		```Command Completed.```
		```;```

4 ☐	Issue the command to retrieve SLK information for the IPLIM and IPLIMI cards from step 3.	`rtrv-slk:loc=XXXX` `(Where XXXX is the location of each IPLIM/IPLIMI card displayed in Step 3)`

5 ☐	For releases prior to 34.0 the response to retrieve SLK command is displayed.
	
	For releases 34.0 and higher the response to retrieve SLK command is displayed
	
	Repeat steps 4-5 for each IPLIM/IPLIMI card.
		```tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y```
		```rtrv-slk:loc=XXXX```
		```Command entered at terminal #X.```
		
		```LOC PORT LSN SLC TYPE IPLIML2```
		```1201 A ls1201a 0 IPLIM M2PA```
		```1201 B ls1201b 0 IPLIM SAALTALI```
		```1201 A1 ls1201a1 2 IPLIM M3UA```
		```;```
		
		```tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y```
		```rtrv-slk:loc=XXXX```
		```Command entered at terminal #X.```
		
		```LOC LINK LSN SLC TYPE IPLIML2```
		```1201 A ls1201a 0 IPLIM M2PA```
		```1201 B ls1201b 0 IPLIM SAALTALI```
		```;```

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6 ☐	Issue the command to retrieve IP link information.	`rtrv-ip-lnk`
| **7** ☐ | Response to retrieve command is displayed. | ```
    tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
    LOC   PORT IPADDR          SUBMASK           DUPLEX  SPEED MACTYPE AUTO MCAST

    1201  A    192.168.0.1     255.255.255.0     HALF    10    DIX     NO   NO
    1201  B    --------------- ---------------   HALF    10    DIX     NO   NO
    1202  A    192.168.0.2     255.255.255.0     HALF    10    DIX     NO   NO
    1202  B    --------------- ---------------   HALF    10    DIX     NO   NO
    1203  A    192.168.0.3     255.255.255.0     HALF    10    DIX     NO   NO
    1203  B    192.169.0.3     255.255.255.0     HALF    10    DIX     NO   NO
    1204  A    192.168.0.4     255.255.255.0     HALF    10    DIX     NO   NO
    1204  B    192.169.0.4     255.255.255.0     HALF    10    DIX     NO   NO
    1205  A    192.168.0.5     255.255.255.0     HALF    10    DIX     NO   NO
    1205  B    --------------- ---------------   HALF    10    DIX     NO   NO
    1207  A    192.168.132.7   255.255.255.0     HALF    100   DIX     NO   YES
    1207  B    192.168.133.7   255.255.255.0     HALF    10    DIX     NO   YES

    IP-LNK   table is (12 of 512) 2% full.

;
``` |
| **8** ☐ | Issue the command to retrieve IP host information[10]. | `rtrv-ip-host` |
| **9** ☐ | Response to retrieve IP Host command is displayed. | ```
    tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
    rtrv-ip-host
    Command entered at terminal #x.
    IPADDR          HOST
    192.168.0.1     local1201a
    192.168.0.2     local1202a
    192.168.0.3     local1203a
    192.168.0.4     local1204a
    192.168.0.5     local1205a
    192.168.0.6     local1206a
    192.168.132.7   dsm1207atomps
    192.168.133.7   dsm1207btomps
    192.168.1.1     remote1201a
    192.168.1.2     remote1202a
    192.168.1.3     remote1203a
    192.168.1.4     remote1204a
    192.168.1.5     remote1205a
    192.168.1.6     remote1206a
    192.169.0.3     altlocal1203b
    192.169.0.4     altlocal1204b
    192.169.0.6     altlocal1206b

    IP Host table is (17 of 512) 3% full

;
``` |
| **10** ☐ | If Release 38.0, go to Step 12, else issue the command to retrieve TCP Sockets. | `rtrv-appl-sock` |

---

[10] If running this command for release not between 34.0 and 38.0, issue command with parameter DISPLAY=ALL to retrieve all data. Then go to last step in this procedure.

Procedure 24: Verification of the IP Database

11 ☐	Response to retrieve TCP sockets command is displayed.	<pre>tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
		rtrv-appl-sock
		Command entered at terminal #x.
		
		SNAME s1201b
		     PORT B
		     LHOST local1201a
		     RHOST remote1201a
		     LPORT 1201 RPORT 1201
		     SERVER YES DCMPS 10
		     REXMIT FIXED RTT 60
		     OPEN NO ALW NO
		
		SNAME s1202b
		     PORT B
		     LHOST local1202a
		     RHOST remote1202a
		     LPORT 1202 RPORT 1202
		     SERVER YES DCMPS 10
		     REXMIT FIXED RTT 60
		     OPEN NO ALW NO
		
		SNAME s1203
		     PORT A
		     LHOST local1203a
		     RHOST remote1203a
		     LPORT 1203 RPORT 1203
		     SERVER YES DCMPS 10
		     REXMIT FIXED RTT 60
		     OPEN NO ALW NO
		
		SNAME s1204
		     PORT A
		     LHOST local1204a
		     RHOST remote1204a
		     LPORT 1204 RPORT 1204
		     SERVER YES DCMPS 10
		     REXMIT FIXED RTT 60
		     OPEN NO ALW NO
		
		SNAME s1205b
		     PORT A
		     LHOST ---
		     RHOST ---
		     LPORT --- RPORT ---
		     SERVER YES DCMPS 10
		     REXMIT FIXED RTT 60
		     OPEN NO ALW NO
		
		IP Appl Sock/Assoc table is (15 of 4000) 1% full
		
		;</pre>

12 ☐	Issue the command to retrieve SCTP associations.	**rtrv-assoc**

13 ☐	For releases 34.3 and less, the response to retrieve SCTP associations command is displayed as follows.	<pre>tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
		rtrv-assoc
		Command entered at terminal #x.
		  ANAME a1201a
		     PORT A
		     ADAPTER M2PA
		     LHOST local1201a
		     ALHOST ---
		     RHOST remote1201a
		     LPORT 1201 RPORT 1201
		     ISTRMS 2 OSTRMS 2
		     RMODE LIN RMIN 120 RMAX 800
		     RTIMES 10 CWMIN 3000 M2PATSET 1
		     OPEN NO ALW NO
		
		ANAME a1202a
		     PORT A
		     ADAPTER M2PA
		     LHOST local1202a
		     ALHOST ---
		     RHOST remote1202a
		     LPORT 1202 RPORT 1202
		     ISTRMS 2 OSTRMS 2
		     RMODE LIN RMIN 120 RMAX 800
		     RTIMES 10 CWMIN 3000 M2PATSET 1
		     OPEN NO ALW NO
		
		ANAME a1204m3
		     PORT A
		     ADAPTER M3UA VER M3UA DRAFT 8
		     LHOST local1204a
		     ALHOST altlocal1204b</pre>

Procedure 24: Verification of the IP Database

```
                        RHOST    remote1204a
                        LPORT    1204          RPORT    1204
                        ISTRMS   2             OSTRMS   2
                        RMODE    LIN           RMIN     120          RMAX    800
                        RTIMES   10            CWMIN    3000
                        OPEN     NO            ALW      NO

            ANAME a1204m3a
                        PORT     A
                        ADAPTER  M3UA          VER      M3UA RFC
                        LHOST    local1204a
                        ALHOST   ---
                        RHOST    remote1204a
                        LPORT    1205          RPORT    1205
                        ISTRMS   2             OSTRMS   2
                        RMODE    LIN           RMIN     120          RMAX    800
                        RTIMES   10            CWMIN    3000
                        OPEN     YES           ALW      NO

            ANAME a1204su
                        PORT     A
                        ADAPTER  SUA           VER      SUA RFC
                        LHOST    local1204a
                        ALHOST   ---
                        RHOST    remote1204a
                        LPORT    12042         RPORT    12042
                        ISTRMS   2             OSTRMS   2
                        RMODE    LIN           RMIN     120          RMAX    800
                        RTIMES   10            CWMIN    3000
                        OPEN     NO            ALW      NO

            ANAME a1204su2
                        PORT     A
                        ADAPTER  SUA           VER      SUA RFC
                        LHOST    local1204a
                        ALHOST   ---
                        RHOST    remote1204a
                        LPORT    12052         RPORT    12052
                        ISTRMS   2             OSTRMS   2
                        RMODE    LIN           RMIN     120          RMAX    800
                        RTIMES   10            CWMIN    3000
                        OPEN     NO            ALW      NO
            ANAME a1205m3
                        PORT     B1
                        ADAPTER  M3UA          VER      M3UA RFC
                        LHOST    local1205a
                        ALHOST   ---
                        RHOST    remote1205a
                        LPORT    1205          RPORT    1205
                        ISTRMS   2             OSTRMS   2
                        RMODE    LIN           RMIN     120          RMAX    800
                        RTIMES   10            CWMIN    3000
                        OPEN     NO            ALW      NO

            ANAME a1206m3
                        PORT     A
                        ADAPTER  M3UA          VER      M3UA RFC
                        LHOST    local1206a
                        ALHOST   altlocal1206b
                        RHOST    remote1206a
                        LPORT    1206          RPORT    1206
                        ISTRMS   2             OSTRMS   2
                        RMODE    LIN           RMIN     120          RMAX    800
                        RTIMES   10            CWMIN    3000
                        OPEN     NO            ALW      NO


            IP Appl Sock/Assoc table is (15 of 4000) 1% full

    ;
```

For releases 35.0 and higher, the response to the retrieve SCTP associations command is displayed as follows:

```
    tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
                       CARD   IPLNK
    ANAME           LOC    PORT  LINK ADAPTER LPORT RPORT OPEN ALW
    iplma1103a2m2pa 1103   B     A2   M2PA    2175  2163  YES  YES
    iplma1103a3m2pa 1103   B     A3   M2PA    2176  2164  YES  YES
    iplma1103b2m2pa 1103   B     B2   M2PA    2179  2167  YES  YES
    iplma1103b3m2pa 1103   B     B3   M2PA    2180  2168  YES  YES
    iplma2116am2pa  2116   A     A    M2PA    3186  3166  YES  YES
    iplma2116a1m2pa 2116   A     A1   M2PA    3187  3167  YES  YES
    iplma2116a2m2pa 2116   A     A2   M2PA    3188  3168  YES  YES
    iplma2116a3m2pa 2116   A     A3   M2PA    3189  3169  YES  YES
    iplma2116bm2pa  2116   B     B    M2PA    3190  3170  YES  YES
    iplma2116b1m2pa 2116   B     B1   M2PA    3191  3171  YES  YES
    iplma2116b2m2pa 2116   B     B2   M2PA    3192  3172  YES  YES
    iplma2116b3m2pa 2116   B     B3   M2PA    3193  3173  YES  YES
    g1101asua400a   1101   A     A    SUA     7300  7300  YES  YES
    g1101asua500a   1101   A     A    SUA     2400  2400  YES  YES
    g1102asua400a   1102   A     A    SUA     2300  2300  YES  YES
```

Procedure 24: Verification of the IP Database

| | | ```
g1102asua500a   1102  A     A    SUA      2400  2400  YES  YES

IP Appl Sock/Assoc table is (16 of 4000) 1% full

;
``` |
| **14** ☐ | If the release is less than 34.0, issue the command to retrieve Application Server Processors. Otherwise, go to Step 16. | **rtrv-asp** |
| **15** ☐ | Response to retrieve Application Server Processor command is displayed. | ```
tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
   rtrv-asp
Command entered at terminal #x.
ASP                     ASSOCIATION                  UAPS
asp1203m3               a1203m3                         8
asp1204m3               a1204m3                         9
asp1204m3a              a1204m3a                        1
asp1203su               a1203su                        10
asp1204su               a1204su                        10
asp1204su2              a1204su2                       10

ASP table is (6 of 4000) 1% full.

;
``` |
| **16** ☐ | Issue the command to retrieve Application Servers. | **rtrv-as** |
| **17** ☐ | For releases prior to 34.0, the response to the retrieve Application Server command is displayed as follows. | ```
tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
   rtrv-as
Command entered at terminal #x.
AS Name                 Mode            ASP Names
as1203m3                LOADSHARE       asp1203m3

as1204m3                LOADSHARE       asp1204m3
                                        asp1204m3a

as1203su                LOADSHARE       asp1203su

as1204su                LOADSHARE       asp1204su
                                        asp1204su2

AS table is (4 of 250) 1% full.
;
``` |
| | For releases 34.0 and higher, the response to the retrieve Application Server command is displayed as follows: | ```
tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
   rtrv-as
Command entered at terminal #x.
AS Name           Mode        Tr ms  Association Names
as1203m3          LOADSHARE   40     a1203m3

as1204m3          LOADSHARE   2000   a1204m3
                                     a1204m3a

as1203su          LOADSHARE   10     a1203su

as1204su          LOADSHARE   10     a1204su
                                     a1204su2

AS table is (4 of 250) 1% full.

;
``` |

Procedure 24: Verification of the IP Database

18 ☐	Issue the command to retrieve Application Routing Keys.	`rtrv-appl-rtkey:display=all`

19 ☐	For releases prior to 31.12, the response to the retrieve Application Routing Key command is displayed as follows:	<pre>tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
		    rtrv-appl-rtkey:display=all
		    Command entered at terminal #x.
		
		    KEY:LOC DPC SI SSN OPC CICS CICE
		        STATIC 002-001-001 ** *** ********** ********** **********
		               ATTR:PSTNCAT PSTNID NORM DUP
		                      0 0 N -
		               SNAMES:s1203 sock1
		
		    KEY:LOC DPC SI SSN OPC CICS CICE
		        STATIC 002-001-002 5 --- ********** ********** **********
		               ATTR:PSTNCAT PSTNID NORM DUP
		                      0 0 N -
		               ASNAME:as1
		
		    KEY:LOC DPCI SI SSN OPCI CICS CICE
		        STATIC 2-001-3 ** *** ********** ********** **********
		               ATTR:PSTNCAT PSTNID NORM DUP
		                      0 0 N -
		               ASNAME:as1204su
		               ANAMES:a1204su a1204su2
		
		    KEY:LOC DPC SI SSN OPC CICS CICE
		        STATIC ********** 3 --- ---------- ---------- ----------
		               ATTR:PSTNCAT PSTNID NORM DUP
		                      0 0 N -
		               ASNAME:as1204su
		               ANAMES:a1204su a1204su2
		
		    STATIC Route Key table is (13 of 1000) 1% full
		    1203 Route Key table is (0 of 0) 0% full
		    1204 Route Key table is (0 of 0) 0% full
		
		    STATIC Route Key Socket Association table is (12 of 16000) 1% full
		    1203 Route Key Socket Association table is (0 of 0) 0% full
		    1204 Route Key Socket Association table is (0 of 0) 0% full
		
		;</pre>

	For releases 31.12 and higher, the response to the retrieve Application Routing Key command is displayed as follows:	<pre>tekelecstp YY-MM-DD hh:mm:ss zzz PPPPP XX.x.x-YY.y.y
		    rtrv-appl-rtkey:display=all
		    Command entered at terminal #x.
		
		    KEY:LOC DPC SI SSN OPC CICS CICE
		        STATIC 002-001-001 ** *** ************** ********** **********
		               ATTR:PSTNCAT PSTNID NORM DUP
		                      0 0 N -
		               SNAMES:s1203 sock1
		
		    KEY:LOC DPC SI SSN OPC CICS CICE
		        STATIC 002-001-002 5 --- ************** ********** **********
		               RCONTEXT:-
		               ASNAME:as1
		
		    KEY:LOC DPCI SI SSN OPCI CICS CICE
		        STATIC 2-001-3 ** *** ************** ********** **********
		               RCONTEXT:4294967295
		               ASNAME:as1204su
		               ANAMES:a1204su a1204su2
		
		    KEY:LOC DPC SI SSN OPC CICS CICE
		        STATIC ************** 3 *** -------------- ---------- ----------
		               RCONTEXT:295
		               ASNAME:as1204su
		               ANAMES:a1204su a1204su2
		
		    STATIC Route Key table is (13 of 1000) 1% full
		    STATIC Route Key Socket Association table is (12 of 16000) 1% full
		
		;</pre>

20 ☐	All steps in this procedure were completed.	

3.25 Health Check Conclusion

Procedure 25: Return the System to Former Configuration

S T E P #	This procedure returns the EAGLE to the configuration prior to the start of this health check. Estimated time for completion: 1 minute	
1 ☐	Issue the command to changes the user's terminal output group configuration.	`chg-trm:trm=P:YYY=yes,ZZZ=no` *(where P is the location of the printer terminal recorded in Procedure 3.2, Step 4.)* *(YYY is an output group that was recorded in Procedure 3.2, Step 4.)* *(ZZZ is another output group that was recorded in Procedure 3.2, Step 4.)*

2 ☐	Response to change terminal command is displayed.	```tekelecstp 98-03-09 03:01:10 EST Rel XX.X.X-YY.Y.Y```
		 ```chg-trm:trm=P:YYY=yes,ZZZ=no```
		 ```Command entered at terminal #X.```
		 ```;```
		
		 ```tekelecstp 98-03-09 03:01:11 EST Rel XX.X.X-YY.Y.Y```
		 ```CHG-TRM: MASP A – COMPLTD```
		 ```;```

3 ☐	Issue the command to changes the user's terminal output group configuration.	`chg-trm:trm=X:YYY=yes,ZZZ=no:TMOUT=TTT` *(where X is the location of the user's terminal recorded in Procedure 3.2, Step 4.)* *(YYY is an output group that was recorded in Procedure 3.2, Step 4.)* *(ZZZ is another output group that was recorded in Procedure 3.2, Step 4.)* *(TTT is the timeout value that was recorded in Procedure 3.2, Step 4*

4 ☐	Response to change terminal command is displayed.	```tekelecstp 98-03-09 03:01:10 EST Rel XX.X.X-YY.Y.Y```
		 ```chg-trm:trm=X:YYY=yes,ZZZ=no```
		 ```Command entered at terminal #X.```
		 ```;```
		
		 ```tekelecstp 98-03-09 03:01:11 EST Rel XX.X.X-YY.Y.Y```
		 ```CHG-TRM: MASP A – COMPLTD```
		 ```;```

5 ☐	Issue the command to cancel capture.	`canc-echo:trm=P` *(where P is a terminal port that was recorded in Procedure 3.2, Step 4)*

6 ☐	Response to cancel command is displayed.	```tekelecstp 98-03-09 08:29:25 EST Rel XX.X.X-YY.Y.Y```
		 ```canc-echo:trm=P```
		 ```Command entered at terminal #X.```
		 ```;```
		
		 ```tekelecstp 98-03-09 08:29:26 EST Rel XX.X.X-YY.Y.Y```
		 ```Scroll Area Output echo disabled for terminal X.```
		 ```;```

7 ☐	All steps in this procedure were completed.	

4. COMPLETION OF HEALTH CHECK

When the System Health Check has been completed, record all procedures completed, data along with the date into Table 2. Health Check Record on page 8. Contact the Customer Care Center at **1-888-FOR-TKLC or 919-460-2150 (international)** if any failed procedures. Be prepared to identify your Release level, which procedures failed, and at what point each procedure failed.

APPENDIX A. ESTIMATING UPGRADE TIMES

Over the last several software releases, the number of card types and the number of applications have increased dramatically. This has increased the time required for network conversion. To counter the increased time, enhancements have been added to the upgrade functionality to reduce this overall time. All these changes have caused the calculation for estimating upgrade time to become complex. To attempt to create a procedure that would accurately determine network upgrade time would be extremely difficult and hard to follow. Also the network conversion time will vary based on the size and configuration of the system as well as source and target releases. Most influential on the estimation is the one-command upgrade. The software is automatically handling more of the activity, which means it is making more decisions on how to proceed. These decisions cause the conversion to be extended rather than possibly causing an unacceptable impact on the system's capability. Real-time events such as bouncing links or links that do not return to in-service without manual intervention will slow the conversion. The upgrade attempts to continue when it encounters these events by reducing the amount of activity done concurrently, which expands the time. Below is a set of guidelines that provides information about network conversion and how these enhancements have impacted the processing. With these guidelines and the data collected in UHC1, a reasonable estimate can be determined. The estimate can be verified during the analysis of the health check.

General: A prom-based card takes approximately 1 minute to be converted. A flash-based card takes approximately 5 minutes. Prom-based card's GPLs include SS7ANSI, CCS7ITU, SS7GX25, GLS, SCCP, STPLAN, and EBDABLM. Flash-based cards include ATMANSI, ATMITU, SS7ML, IPLIM, IPLIMI, SS7IPGW, IPGWI, VSCCP, VXWSLAN, EBDADCM, HMUX, IPS, EMDC, EROUTE, and MCP. It can be assumed all new cards will be flash-based applications such as HIPR, MPLGA, MPLGI, and HCMIM.

Threshold Parameter: The thres= parameter, first available in EAGLE Release 25, allows for groups of cards of the same application to be converted simultaneously. The parameter, which has a range of 50% to 90%, specifies the minimum percent of links within the same application that remain in service during the conversion. If a system has 100 SS7ANSI links, then between 50 and 90 of them remain in-service at any given time. It is recommended that a threshold of 75 be used in all upgrades. Using 75% in this example, the upgrade should convert these cards in a minimum of four groups. The conversion time is decreased from 100 minutes to about 20 minutes if the four groups take 5 minutes each to upgrade. Because of a restriction in the flash downloading of flash-based cards, threshold does not apply to upgrading of flash-based cards until upgrading from EAGLE 28.0/IP7 6.0.

Warm Restart: With the introduction of LNP and the expansion of its capability, load time of the database onto the SCCP cards dramatically increased. Warm restart was implemented in and is available in upgrades from EAGLE 26.0 and beyond. This eliminated the need to reload the data on the cards when the data tables had not been changed. Cards that used to take 10 minutes per 2 million telephone numbers to load, only take 10 minutes per card to convert. In systems using LNP, LNP12million, INP, GPort, or GFlex, each SCCP or VSCCP card should take 10 minutes. In systems using LNP48million or LNP 96million, each VSCCP card should take 15 minutes using warm restart.

Multiple Flash Download: For upgrades from EAGLE 28.0/IP7 6.0 and beyond, the restriction that only allowed one card to be flash downloaded at a time was removed. This allowed flashed-based cards to be converted in groups when the threshold parameter is specified. If a system has 20 flash-based link cards, it takes 40 minutes at 10 minutes per group when threshold is specified as 75, a dramatic decrease from 100 minutes in previous releases.

Flash Download Loading: An additional enhancement when upgrading from EAGLE 28.0/IP7 6.0, is the loading mechanism for flash download on the card was improved to reduce the overall time. A flashed-based card is converted in approximately 3 minutes rather then 5 minutes.

SCCP Threshold: Previously, SCCP application cards were converted serially because of the N+1 configuration. In upgrades to EAGLE 29.0/IP7 7.0 and beyond, when the threshold parameter is specified, the SCCP cards are converted in groups. The number of cards in a group is based on the peak TPS rate since the start of the upgrade execution. Since the upgrade should take place during a maintenance window with low traffic, the SCCP cards typically will be converted in two groups. Higher traffic rates cause fewer cards per group. If a system has 10 SCCP cards, which took 100 minutes, this is reduced to 20 minutes.

Master Channel Network Conversion: In upgrades to EAGLE 29.0/IP7 7.0 and beyond, an E1/T1 card and its associated Channel cards are converted as one entity thus interrupting the signaling link only once during the conversions. Therefore, threshold of master/channel cards is based on the number of E1 and T1 cards in the system.

Non-provisioned Flash: The system allows for cards to be present without being provisioned. If these cards are flashed-based, they used to be downloaded with the target-release flash manually after the upgrade. In upgrades to EAGLE 29.0/IP7 7.0 and beyond, these cards are converted as part of the upgrade. Although much faster and more efficient than manually performing this task, it adds approximately 10 minutes per flash type to the network conversion when the threshold parameter is specified.

APPENDIX B. ACCESSING TEKELEC'S CUSTOMER SUPPORT SITE

Access to Tekelec's Customer Support site is restricted to current Tekelec customers only. This section describes how to log into Tekelec's 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 Tekelec new Customer Support site at support.tekelec.com.

   Note: If you have not registered yet for this new site, click the **Register Here** link. Have your customer number available. The response time to registration requests is 24 to 48 hours.

2. Click the Product Support tab.

3. Use the Search field to locate quickly 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**.