

**Oracle® Communications**  
**EAGLE Application Processor**

Software Upgrade/Installation Procedure

Release 15.0

909-2226-001 Revision B

February 2014

**ORACLE®**

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

**Before upgrading any system, please access Oracle's Tekelec Customer Support site and review any Technical Service Bulletins (TSBs) that relate to this upgrade.**

Refer to Appendix F for instructions on accessing this site.

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

Phone: 1-888-367-8552 or 919-460-2150 (international)

FAX: 919-460-2126

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## 1. INTRODUCTION

### 1.1 Purpose and Scope

This document describes methods utilized and procedures executed to perform the following tasks:

- a. An initial installation of the EPAP 15.0 application software if it is not currently installed on an in-service Tekelec 1200 Application Server (T1200 AS) or E5-APP-B system running a release of TPD 5.5.
- b. A software upgrade on an in-service Tekelec 1200 Application Server (T1200 AS) or E5-APP-B system running a release equal to TPD 5.5 and EPAP Release 15.X.

Please note that the EPAP 15.0 cannot be upgraded from any older EPAP release. Migration has to be performed for such cases.

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

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

### 1.2 References

#### 1.2.1 External

- [1] *EPAP Administration Manual*, 910-6532-001, latest revision, Tekelec
- [2] *T1200 Integrated Application Platform Hardware Manual*, 910-5646-001 Revision B, December 2009
- [3] *Installation of Quad-Serial Card, T1200 Application Server*, 909-1636-001, Rev 1.2, Chris Mitchell, November 2009

#### 1.2.2 Internal (Tekelec)

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

- [1] *TEKELEC Acronym Guide*, MS005077, revision 2.35, Tekelec, September 2005.
- [2] *Software Upgrade Procedure Template*, TM005074, Current Version, Tekelec
- [3] *INTERCONNECT SYSTEM LEVEL MPS WITH 2 TEKSERVERS*, 892-0049-01, rev B, Tekelec, April 2003
- [4] *Integrating MPS into the Customer Network*, TR005014, version 3.1, Tekelec, October 2009
- [5] *TPD Initial Product Manufacture User's Guide*, 909-2130-001, Latest revision, Tekelec
- [6] *EPAP on T1200 Network Interconnect Technical Reference*, TR006042, Version 1.3, Tim Brady, April 2009
- [7] *EPAP On T1200 Application Server Feature Description (FD)*, FD006216, Version 1.6, Pierre Mouallem, October 2009
- [8] *Configuration of Quad-Serial Card, T1200 Application Server*, 909-1636-001, Latest revision, Tekelec
- [9] *PFS EPAP 15.0*, PF006114, Latest revision, Tekelec

### 1.3 Software Release Numbering

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

### 1.4 Acronyms

An alphabetized list of acronyms used in the document that are not included in [1]:

**Table 1. Acronyms**

AS	Application Server
E5-APP-B	E5 Based Application Card
EPAP	Eagle Provisioning Application Processor
GA	General Availability
IPM	Initial Product Manufacture
LA	Limited Availability
MPS	Multi-Purpose Server
NPI	New Product Introduction
SM	Service Module
TPD	Tekelec Platform Distribution

### 1.5 Terminology

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

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

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

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

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

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

Other terminology follows.

**Table 2. Terminology**

<b>Backout (abort)</b>	The process to take a system back to a Source Release prior to completion of upgrade to Target release. Includes preservation of databases and system configuration.
<b>Incremental upgrade</b>	<b>Open Systems:</b> An upgrade that takes a target system from any given release to another release but not necessarily from the shipping baseline to the target release.
<b>Non-preserving upgrade</b>	“Upgrade” that does not adhere to the standard goals of software upgrade methodology. The outcome of the execution is that the system is running on the Target Release, however the Source Release database is <b>not</b> preserved.
<b>Rollback</b>	The process to take a system from a Target Release back to a Source Release including preservation of databases and system configuration.
<b>Source release</b>	Software release to upgrade from.
<b>Target release</b>	Software release to upgrade to.



Upgrade media	CD-ROM for T1200, USB media for E5-APP-B or ISO image for either hardware platform.
---------------	---

## 1.6 Recommendations

This procedure should be followed thoroughly utilizing the steps as written. **When planning to upgrade the server, contact Tekelec Customer Care at least 48 hours before the upgrade process has been planned to be initiated.** In the event any unexpected results are returned while executing steps in this procedure halt the activity and contact Tekelec Customer Care for assistance.

### Please read the following notes on procedures:

1. Any procedure completion times are estimates. Times may vary due to differences in database size, user experience, and user preparation.
2. The shaded area within response steps must be verified in order to successfully complete that step.
3. Output displayed in the procedures' response steps is presented. Actual output varies depending on system. Output is presented for reference only.
4. Where possible, command response outputs are shown as accurately as possible. However, exceptions may include the following:
  - Information such as *time* and *date*.
  - ANY information marked with "XXXX." Where appropriate, instructions are provided to determine what output should be expected in place of "XXXX."
5. After completing each step and **at each point where data is recorded from the screen, the technician performing the upgrade must check each step.** A checkbox has been provided beneath each step number for this purpose.
6. Captured data is required for future support reference if Tekelec Technical Services is not present during the upgrade.
7. In procedures that require a command to be executed on a specific MPS, the command is prefaced with MPS A: or MPS B:
8. User Interface menu items displayed in this document were correct at the time the document was published but may appear differently at time that this procedure is executed.

## 1.7 Requirements

- Screen logging is required throughout the procedure. These logs should be made available to Tekelec Customer Care in the event their assistance is needed.
- Target-release CD-ROM or USB media or ISO image

## 2. GENERAL DESCRIPTION

This document defines the step-by-step actions performed to execute a software upgrade of an in-service MPS running the EPAP application from the source release to the target release. This document also defines the steps to execute the initial installation of the EPAP application on T1200 AS and a new E5-APP-B card.

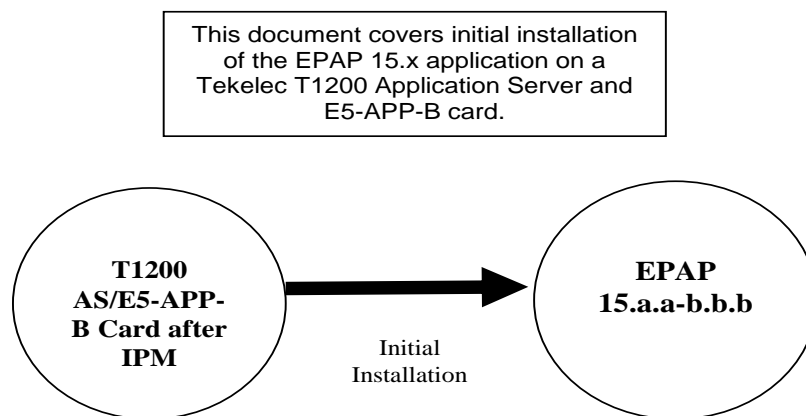
For the EPAP application, some steps in this procedure refer to the PDB application feature on the MPS A of the MPS pair. The EPAP application makes it optional for a newly installed MPS A node to be configured as a Provisioning (PDB) node (upgrades of MPS A nodes already configured as a provisioning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

The EPAP application can be installed and upgraded based on the table below.

**Table 3. Install-Upgrade paths**

<b>TPD Release for IPM</b>	<b>EPAP Initial Installation Release</b>
5.5.0-75.6.0 or later	15.0
<b>Upgrade Source Release</b>	<b>Upgrade Destination Release</b>
15.0.x	15.0.y

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



**Figure 2: Initial Application Installation Path – Example shown**

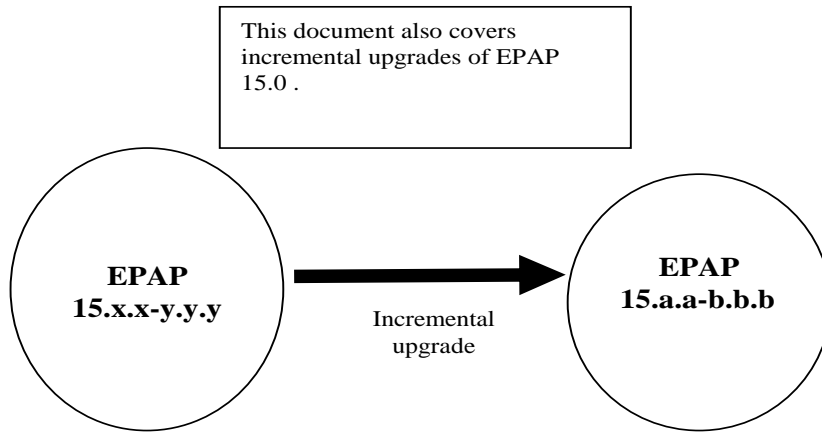


Figure 3: Incremental Upgrade Path - EPAP 15.x

### 2.1 Upgrading Provisionable EPAP Mated Pairs

Current deployments of the EPAP support two geographically separated EPAP systems that are “mated”, meaning they communicate and replicate PDB information between the two sites. An EPAP system is a pair of MPS servers (an **A** and a **B** node). So a mated pair of EPAP systems consists of four MPS servers, an **A** and a **B** node for each EPAP system (see Figure 4: EPAP Mated Pairs). EPAP allows more than two EPAP systems in a related configuration (up to 22 Non-Provisionable MPS servers).

This document describes upgrade (and, if necessary, backout) of the EPAP software on one system, that system consisting of two MPS servers (A and B). However, for mated pairs of EPAP systems, upgrades (and backouts) must be coordinated between both the local EPAP system and the remote EPAP system and performed during the same maintenance period.

**Note:** Based on the time taken for the PDB backup another maintenance window might be required to complete the upgrade.

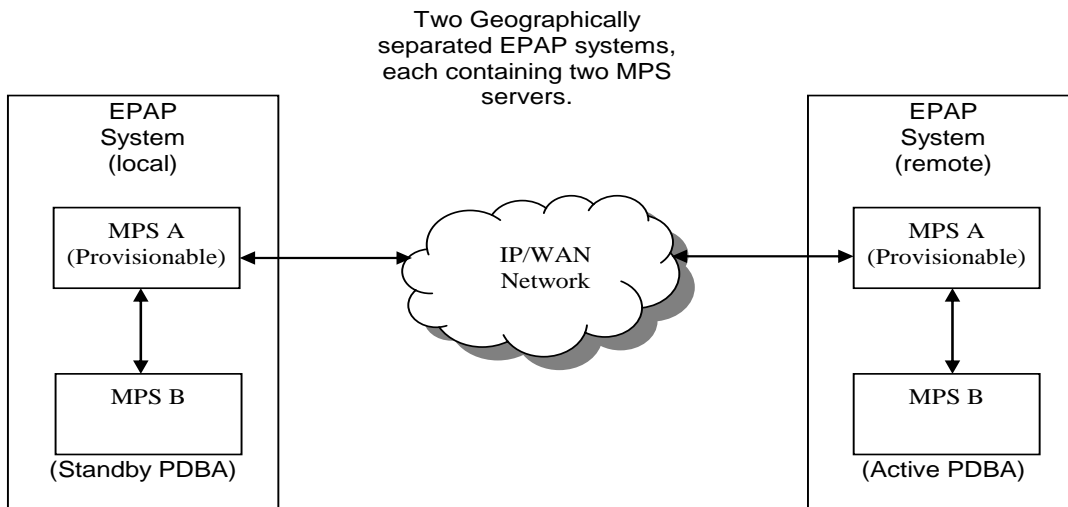


Figure 4: EPAP Mated Pairs

Upgrade of mated EPAP systems must be carried out in the following order:

1. **Ensure PDB databases are at the same level. Stop all provisioning to ensure that all PDB databases are in sync before proceeding. Also, ensure that no PDB/RTDB maintenance activity is in progress and clear all scheduled activities.**
2. Local MPS-B
3. Local MPS-A (Standby PDBA)
4. Remote MPS-B
5. Remote MPS-A (Active PDBA)

When upgrade is initiated on the local MPS-B, the scripts controlling the upgrade will cause the local MPS-B to communicate using Secure-Shell to both the local MPS-A and the remote MPS-A to stop the PDBA software. The PDBAs should be restarted only after both the local and remote EPAP systems have successfully completed upgrade.

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

## 2.2 Backout Provisionable EPAP Mated Pairs

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

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

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

## 2.3 Upgrading EPAP Non-Provisionable MPS Servers

EPAP provides the ability to expand the concept of a mated pair of EPAP systems to have up to 24 EPAP systems (48 MPS servers total) configured such that two of the MPS-A servers will run the PDBA software and handle provisioning (Provisionable nodes) and the other 24 MPS-B and 22 MPS-A servers will only run the RTDB software, taking their updates from the two Provisionable MPS-A servers. In such a configuration, it is required that the EPAP systems containing the Provisionable MPS-A servers be upgraded first, before any EPAP systems containing non-Provisionable MPS-A servers are upgraded.

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

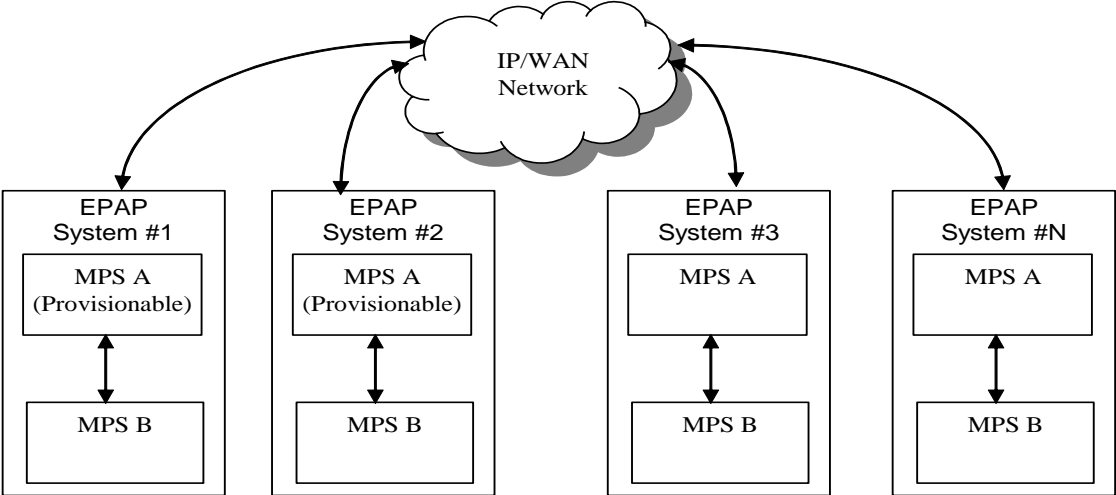


Figure 5: EPAP Mated Pairs with Non-Provisioning MPS Servers

### 3. UPGRADE OVERVIEW

#### 3.1 Upgrade Provisioning Rules

When a Provisionable EPAP mated pair is upgraded or backed out, the EPAP upgrade scripts disable provisioning when the upgrade is initiated on the first MPS server. The PDBA software remains disabled until the last server in the MPS in the mated pair has been upgraded or backed out. The user has to enable the PDBA software, allowing provisioning, after the upgrade/backout is complete on last MPS server in an EPAP mated pair. Provisioning is not disabled during the upgrade of a Non-Provisionable MPS.

Because EPAP MPS pairs are generally located at geographically distinct sites, significant time may elapse between the upgrade of the Provisionable EPAP pair and the upgrade of the Non-Provisionable EPAP pairs. Provisionable EPAP MPS pairs must always be upgraded before Non-Provisionable EPAP pairs.

#### 3.2 Required Materials

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

Description	Information
PROVISIONABLE (Yes/No)	
PDBA state (Active/Standby)	
Provisioning IP	
Provisioning Mask	
Provisioning Default Router IP	
NTP1 IP	
NTP2 IP	
NTP3 IP	
Local VIP	
Remote VIP	
Local PDBA IP	
Remote PDBA IP	
Remote PDBA B IP	
RTDB Homing	
Time Zone	
PDBA Proxy Feature	
Others	

**Table 4: System Configuration Information**

- Passwords for users on the local system:

EPAP USERS		
login	MPS A password	MPS B password
epapconfig		
epapdev (needed for backout only)		
syscheck		
root		
epapall (needed for GUI access)		

Table 5. User Password Table

- Refer to [8] for materials/cables required for configuring quad serial on T1200 AS.

### 3.3 Installation Phases

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

Phase	Elapsed Time (Minutes)		Activity	Procedure
	This Step	Cum.		
Connectivity setup	15	15	Set up connectivity to the MPS Servers.	<b>Procedure 1</b>
Verify install	5	20	Verify this should be an install.	<b>Procedure 2</b>
Pre-upgrade check	15	35	Verify requirements for install are met.	<b>Procedure 3</b>
Pre-install health check	5	40	Run the syscheck utility to verify that all servers are operationally sound.	<b>Procedure 5</b>
Configure Server 1A	5	45	Set hostname, designation, function and time.	<b>Procedure 8</b>
Configure Server 1B	5	50	Set hostname, designation, function and time.	<b>Procedure 9</b>
Install Servers	30	80	Install software on sides 1A and 1B	<b>Procedures 10 and 11</b>
Configure Switches	30*	110*	Configure the Switches	<b>Procedure 12</b>
Post-install application processing	30	140	Perform first time configuration. Perform Procedure 14 only if the EPAP is configured as Provisionable.	<b>Procedures 13, 14 and 15</b>
Post-upgrade health check	5	145	Run the syscheck utility to verify all servers are operationally sound.	<b>Procedure 5</b>
<b>The following steps only need to be performed on the customer site.</b>				
Site Configuration	15	160	Perform site specific network configuration.	

**Table 6. Installation Phases**

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



### 3.4 Incremental Upgrade Phases

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

**Note: Before proceeding with the upgrade process, refer to section 2.1 to get the overview of the EPAP setup and upgrade order.**

Phase	Elapsed Time (Minutes)		Activity	Procedure
	This Step	Cum.		
Connectivity setup	15	15	Set up connectivity to the MPS servers.	<b>Procedure 1</b>
Verify incremental upgrade	5	20	Verify this should be an incremental upgrade.	<b>Procedure 2</b>
Pre-upgrade check	15	35	Verify requirements for upgrade are met.	<b>Procedure 3</b>
Assess readiness for upgrade	15	50	Assess the server's readiness for upgrade.	<b>Procedure 4</b>
Pre-upgrade health check	5	55	Run the syscheck utility to verify the MPS server is operationally sound.	<b>Procedure 5</b>
Pre-upgrade Backup	*See notes below	*See notes below	Backup application databases and other pertinent information.	<b>Procedure 6</b>
Pre-upgrade system time check	5	60	Pre-upgrade system time check.	<b>Procedure 7</b>
Upgrade MPS B	30	90	Execute the upgrade procedure on MPS B.	<b>Procedure 16</b>
Upgrade MPS A	30	120	Execute the upgrade procedure on MPS A.	<b>Procedure 17</b>
Post-upgrade health check	5	125	Run the syscheck utility to verify the MPS server is operationally sound.	<b>Procedure 5</b>
Start the PDB software.	10	135	Step only necessary during upgrade of a Provisionable mated EPAP pair. Re-activate the PDB on the Provisionable MPS A servers. <b>Note: Read the notes given in Section 7.3.1 before executing the procedure.</b>	<b>Procedure 20</b>
Post-upgrade Backups	*See notes below	*See notes below	Backup application databases and other pertinent information.	<b>Procedure 6</b>

**Table 7. Incremental Upgrade Phases**

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

### 3.5 Backout Phases

**Note:** Before proceeding with the backout process, refer to sections 7.1 and 7.2 to get the overview of the EPAP setup and the backout order.

Phase	Elapsed Time (Hours or Minutes)		Activity	Impact	Procedure
	This Step	Cum.			
Determine state of system	15-30	15-30	Investigate and determine the state of the MPS system. This may take anywhere from 15 to 30 minutes.	Cannot proceed with backout until failure analysis is complete. Some hand-fixes may be required before proceeding with backout.	<b>Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</b>
Backout MPS A	30	45-60	If required, backout MPS A.		<b>Procedure 19</b>
Backout MPS B	30	75-90	Backout MPS B. If backout of MPS A has been done, then execute Procedure 19. Otherwise, if backout required only on MPS B, then execute Procedure 18.		<b>Procedure 18 or 19</b>
Post-backout health check	10	85-100	Run the syscheck utility to verify the MPS server is operationally sound.	Verify that the backout was successful.	<b>Procedure 5</b>
Start the PDBA software	5	90-105	Re-activate the PDB on the Provisionable MPS A servers. <b>Note: Read the instructions given in Section 7.3.1 before executing the procedure.</b>		<b>Procedure 20</b>

**Table 8. Backout Procedure Overview**

### **3.6 Log Files**

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

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

## 4. UPGRADE PREPARATION

### 4.1 Environment Setup

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

<b>S T E P #</b>	<p>This procedure sets up the upgrade environment. Windows are opened for both MPS servers.</p> <p><b>NOTE: Call Tekelec Technical Services for assistance if modem access is the method use for upgrade.</b></p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR UPGRADE ASSISTANCE.</b></p>	
	<b>Note:</b> Based on the existing Hardware T1200 or E5-APP-B, use the appropriate steps.	
1. <input type="checkbox"/>	Establish a connection to MPS A.	<p>If access to the MPS servers is not available through an IP network, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>For connecting the T1200 A server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the ‘dongle’ labeled ‘S1’ on the T1200 B server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B B card’s adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p>
2. <input type="checkbox"/>	On the workstation, open one terminal window in preparation for establishing remote connections to the MPS servers.	Create a terminal window
3. <input type="checkbox"/>	Create a terminal window for MPS A.	Create a terminal window and give it a title of “MPS A”
4. <input type="checkbox"/>	<b>MPS A:</b> Enable capture file and verify the correspondent file is created.	Enable the data capture and verify that the data capture file is created at the path specified.
5. <input type="checkbox"/>	Log into MPS A.	<b>&lt;hostname&gt; console login: root password: &lt;password&gt;</b>
6. <input type="checkbox"/>	<b>MPS A:</b> Start screen Session.	Execute the following command to start screen and establish a console session with MPS A. <b># screen</b>
7. <input type="checkbox"/>	Establish a connection to MPS B.	<p>If access to the MPS servers is not available through an IP network, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>For connecting the T1200 B server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the ‘dongle’ labeled ‘S1’ on the T1200 A server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port</p>

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

		on the E5-APP-B A card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B A card’s adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b>
8. <input type="checkbox"/>	Create a terminal window for MPS B.	Create a terminal window and give it a title of “MPS B”
9. <input type="checkbox"/>	<b>MPS B:</b> Enable capture file and verify a correspondent file is created.	Enable the data capture and verify that the data capture file is created at the path specified.
10. <input type="checkbox"/>	Log into MPS B.	<b>&lt;hostname&gt; console login: root password: &lt;password&gt;</b>
11. <input type="checkbox"/>	<b>MPS B:</b> Start screen Session.	Execute the following command to start screen and establish a console session with MPS B. <b># screen</b>

**4.2 Software Upgrade Preparation**

**4.2.1 Upgrade/Installation Determination and Readiness Assessment**

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

<b>S T E P #</b>	This procedure executes the steps required to determine if an upgrade of the system is required or an initial application installation is required.	
	Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. <b>IF THIS PROCEDURE FAILS, CONTACT TECELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</b>	
1. <input type="checkbox"/>	<b>MPS A:</b> Log in as the user “root”.	If not already logged-in, login at MPS A as ‘root’.  <b>&lt;hostname&gt; console login: root password: &lt;password&gt;</b>
2. <input type="checkbox"/>	<b>MPS A:</b> Verify the hardware type.	Execute the following command to source in the hardware module:  <b># . /usr/TKLC/plat/lib/TKLChardware.sh</b>  Execute the following command and examine the output:  [root@MPS-A ~]# <b>getHardwareID</b>  The output will be: <b>T1200</b> [root@MPS-A ~]#  Or <b>E5APPB</b> [root@MPS-A ~]#  If the output of the above query is T1200 or E5APPB, then proceed to the next step. Otherwise, this is not the correct hardware for the install/upgrade of EPAP 15.0. Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.
3.	<b>MPS B:</b> Log in as the	If not already logged-in, login at MPS B as ‘root’.

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

<input type="checkbox"/>	user "root".	<pre>&lt;hostname&gt; console login: root password: &lt;password&gt;</pre>
4. <input type="checkbox"/>	<p><b>MPS B:</b> Determine if the application is currently installed on the servers.</p> <p>(MPS B will be used to determine the current state of the servers. We will assume that the state of the A server is the same).</p>	<p>Execute an rpm query command and examine the output:</p> <pre># rpm -qi TKLCepap</pre>
5. <input type="checkbox"/>	<p><b>MPS B:</b> Observe the output from the rpm query.</p>	<p>The following is an example of what the output may look like:</p> <pre># rpm -qi TKLCepap Name       : TKLCepap                      Relocations: (not relocatable) Version    : 150.0.3                      Vendor: Tekelec Release    : 15.0.0_150.3.0              Build Date: Tue 12 Jun 2012 03:07:29 PM EDT Install Date: Thu 09 Aug 2012 06:36:46 PM EDT      Build Host: diablo-2.tekelec.com Group      : Development/Build           Source RPM: TKLCepap-150.0.3-15.0.0_150.3.0.src.rpm Size       : 50622697                     License: © TEKELEC 2005-2012 Signature  : (none) Packager   : &lt;@tekelec.com&gt; URL        : http://www.tekelec.com/ Summary    : Tekelec EPAP Package Description :</pre> <p>This is the Tekelec EPAP Package. The package installs EPAP software. Eagle Provisioning Application Processor (EPAP) provides Provisioning Database Application (PDBA on A side) and Real Time Database (RTDB). EPAP provides following features: GFLEX, GPORT, INP, IDPR, EIR, APORT, IS41 to GSM Migration, PPSMS, MT Based GSM SMS NP, MT Based IS41 SMS NP, MO Based GSM SMS NP, MO Based IS41 SMS NP, ATINP, PATINP, VFLEX, TINP, MNPSMS, TIF.</p> <p>If the output similar to the above example is displayed, then skip to step 7. Otherwise, proceed to the next step.</p>
6. <input type="checkbox"/>	<p><b>MPS B:</b> Installation is required if the application is not present on the server, else upgrade is required.</p>	<p>If the application is not currently installed, output similar to the example below will be returned from the <b>rpm -qi</b> command in the previous step. If this is the case, then an application installation is required. Refer to section 0 to perform EPAP installation.</p> <pre># rpm -qi TKLCepap package TKLCepap is not installed</pre> <p>Skip to step 10.</p>
7. <input type="checkbox"/>	<p><b>MPS B:</b> Determine which version of the application is present.</p>	<p>Write Down the Release Number:</p> <p>Release Number: _____</p> <p>If the release number on the MPS is less than the release number on the upgrade media, then an upgrade is required.</p>
8.	Determine if it is an	If the current release is 15.x.x and target release is 15.y.y (less than the number on the

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

<input type="checkbox"/>	Incremental Upgrade.	upgrade media), it is an <b>INCREMENTAL</b> Upgrade.  Write Down the Upgrade Type before the upgrade:  UPGRADE TYPE: _____
9. <input type="checkbox"/>	<b>MPS A:</b> Determine if it is Provisionable or Non-Provisionable EPAP setup.	Execute the following command to determine if the EPAP is Provisionable or Non-Provisionable. <b># uiEdit   grep PROVISIONABLE</b>  [root@MPS A]# <b>uiEdit   grep PROVISIONABLE</b> "PROVISIONABLE_MPS" is set to "YES"  If the above output contains “YES”, then the EPAP is Provisionable. Otherwise, the EPAP is Non-Provisionable. Write down this information.  EPAP setup type: _____
10. <input type="checkbox"/>	<b>MPS A and B:</b> Procedure Complete.	This procedure is complete.

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

<b>S T E P #</b>	This procedure verifies that all pre-upgrade requirements have been met.  Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.  IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR <u>UPGRADE ASSISTANCE</u> .	
1. <input type="checkbox"/>	Verify all required materials are present.	Verify that the materials listed in Upgrade Material List (Section 3.2) are present.
2. <input type="checkbox"/>	Verify the availability of passwords for MPS systems.	Refer to Table 5 for the list of users.
3. <input type="checkbox"/>	Review provisioning rules.	Please review the Provisioning information as defined in Section 3.1. If you do not understand the information provided in this section, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.

**Procedure 4: Assess the MPS Server’s Readiness for Upgrade**

<b>S T E P #</b>	This procedure executes the steps required to assess the readiness of a system to be upgraded.  Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.  IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR <u>UPGRADE ASSISTANCE</u> .	
1. <input type="checkbox"/>	<b>MPS B:</b> Log in as the user “root”.	If not already logged-in, then log in.  <b>&lt;hostname&gt; console login: root</b> <b>password: &lt;password&gt;</b>
2. <input type="checkbox"/>	<b>MPS B:</b> Display the /etc/hosts configuration	If upgrading the first MPS B of a Provisionable mated pair, execute the following command to display the configuration of pdb entries:

## Procedure 4: Assess the MPS Server's Readiness for Upgrade

	for the pdb entities.	<pre># grep pdb /etc/hosts</pre> <p>Otherwise, skip to step 4.</p>
3. <input type="checkbox"/>	<b>MPS B:</b> Verify the correct configuration for pdb entities in the /etc/hosts file.	<p>Below is an example of the output of the grep command:</p> <pre>192.168.55.176      host1-a  pdba 192.168.61.76      host2-a  prova-ip  pddb</pre> <p>If the command output contains 2 entries (pdba and pddb are both configured), continue to the next step .</p> <p>If the command output does not contain unique entries for pdba and pddb, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p>
4. <input type="checkbox"/>	<b>MPS B:</b> Determine the mysqld multi log file permissions are correct.	<p>Execute the following command to display the file properties of the mysqld_multi log file:</p> <pre># ls -l /var/TKLC/epap/db/mysqld_multi.log</pre>
5. <input type="checkbox"/>	<b>MPS B:</b> Verify the file permissions.	<p>If the ownerships &amp; permissions are not set mysql:mysql and 664, as illustrated below, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p> <pre>-rw-rw-r--    1 mysql    mysql          XXXXX  MMM  dd  HH:MM /var/TKLC/epap/db/mysqld_multi.log</pre>
6. <input type="checkbox"/>	<b>MPS B:</b> Display the contents of the /var/TKLC/upgrade directory.	<p>Execute the following command to display the presence of EPAP software ISO images:</p> <pre># ls -la /var/TKLC/upgrade</pre>
7. <input type="checkbox"/>	<b>MPS B:</b> Delete old ISO images.	<p>Below is an example of the output of the 'ls -la' command:</p> <pre>total 624628 dr-xr-xr-x  2 root root          4096 Aug  9 18:28 . dr-xr-xr-x 22 root root          4096 Aug  9 18:54 .. -r--r--r--  1 root root 638969856 Aug  9 18:28 872-2433- 101-15.0.0_150.3.0-EPAP-x86_64.iso</pre> <p>Remove any ISO images that are not the target software ISO image using the following command:</p> <pre># rm -f /var/TKLC/upgrade/&lt;filename&gt;</pre>
8. <input type="checkbox"/>	<b>MPS B:</b> Determine when last reboot occurred. For any server up longer than 180 days would be a candidate for reboot during a maintenance window.	<pre># uptime</pre> <pre>15:19:34 up 23 days,  3:05,  2 users,  load average: 0.10, 0.13, 0.09</pre>



**Procedure 4: Assess the MPS Server’s Readiness for Upgrade**

<p>9. <input type="checkbox"/></p>	<p><b>MPS B:</b> Disk Integrity step: Executing self test on the disk.</p>	<p>Execute the following command:  <b># smartctl -t short /dev/sda</b></p> <p>The output on T1200 server would be like:</p> <pre>smartctl version 5.38 [x86_64-redhat-linux-gnu] Copyright (C) 2002-8 Bruce Allen Home page is http://smartmontools.sourceforge.net/  Short Background Self Test has begun Use smartctl -X to abort test</pre> <p>The output on E5-APP-B card would be like:</p> <pre>smartctl version 5.38 [x86_64-redhat-linux-gnu] Copyright (C) 2002-8 Bruce Allen Home page is http://smartmontools.sourceforge.net/  === START OF OFFLINE IMMEDIATE AND SELF-TEST SECTION === Sending command: "Execute SMART Short self-test routine immediately in off-line mode". Drive command "Execute SMART Short self-test routine immediately in off-line mode" successful. Testing has begun. Please wait 1 minutes for test to complete. Test will complete after wed Feb 6 16:02:42 2002  Use smartctl -X to abort test.</pre> <p><b>Note: Please wait for 5 minutes for the test to complete.</b></p>
<p>10. <input type="checkbox"/></p>	<p><b>MPS B:</b> Disk Integrity step.</p> <p>Contact the Technical Assistance Centre if the output shows any error/failure.</p>	<p>Execute the following command:  <b># smartctl -l selftest /dev/sda</b></p> <p>The output on T1200 server would be like:</p> <pre>smartctl version 5.38 [x86_64-redhat-linux-gnu] Copyright (C) 2002-8 Bruce Allen Home page is http://smartmontools.sourceforge.net/  SMART Self-test log Num Test          Status          segment  LifeTime LBA_first_err [SK ASC ASQ]   Description          number  (hours) # 1 Background short Completed          -    25502 - [- - -]</pre> <p>Long (extended) Self Test duration: 2070 seconds [34.5 minutes]</p> <p>The output on E5-APP-B card would be like:</p> <pre>smartctl version 5.38 [x86_64-redhat-linux-gnu] Copyright (C) 2002-8 Bruce Allen Home page is http://smartmontools.sourceforge.net/  === START OF READ SMART DATA SECTION === SMART Self-test log structure revision number 1 Num Test_Description      Status          Remaining LifeTime(hours)  LBA_of_first_error # 1  Reserved offline    Completed without error       00% 1673 - # 2  Reserved offline    Completed without error       00% 1673 - # 3  Reserved offline    Completed without error       00% 1653 -</pre>

**Procedure 4: Assess the MPS Server’s Readiness for Upgrade**

<p>11. <input type="checkbox"/></p>	<p><b>MPS B:</b> Disk Integrity step</p> <p>Contact the Technical Assistance Center if any output shows “<b>Completed: read failure</b>” or “<b>Error: UNC xxx sectors</b>”.</p>	<p>Execute the following command:  <b># smartctl -a /dev/sda   grep -i LBA</b></p> <p>The output would be like:</p> <pre> 40 51 a0 11 8e 57 e0 <b>Error: UNC 160 sectors</b> at LBA = 0x00578e11 = <b>538001</b> 40 51 a8 11 8e 57 e0 <b>Error: UNC 168 sectors</b> at LBA = 0x00578e11 = <b>538001</b> Num Test_Description Status Remaining LifeTime(hours) LBA_of_first_error SPAN MIN_LBA MAX_LBA CURRENT_TEST_STATUS                 </pre>
<p>12. <input type="checkbox"/></p>	<p><b>MPS B:</b> Disk Integrity Test.</p>	<p>Repeat steps 9 to 11 for the following disk drives on T1200 server:</p> <ul style="list-style-type: none"> <li>a. /dev/sdb</li> <li>b. /dev/sdc</li> </ul> <p>Repeat steps 9 to 11 for the following disk drive on E5-APP-B card:</p> <ul style="list-style-type: none"> <li>a. /dev/sdb</li> </ul>
<p>13. <input type="checkbox"/></p>	<p><b>MPS A:</b> Log in to the server as user “root”.</p>	<p>If not already logged-in, login at MPS A as ‘root’.</p> <pre> &lt;hostname&gt; console login: root password: &lt;password&gt;                 </pre>
<p>14. <input type="checkbox"/></p>	<p><b>MPS A:</b> Repeat checks on Server A.</p>	<p>Repeat steps 2 - 12 on MPS A.</p>
<p>15. <input type="checkbox"/></p>	<p>Procedure Complete.</p>	<p>This procedure is complete.</p>

**4.2.2 Pre and Post Upgrade Health Check**

**Procedure 5: Pre and Post Upgrade Health Check**

<p><b>S T E P #</b></p>	<p>This procedure determines the health of the MPS System before beginning an upgrade.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</p>	
<p>1. <input type="checkbox"/></p>	<p><b>MPS A:</b> Verify health of MPS A.</p>	<p>Execute Appendix A.1 on MPS A to verify the health of MPS A.</p>
<p>2. <input type="checkbox"/></p>	<p><b>MPS B:</b> Verify health of MPS B.</p>	<p>Execute Appendix A.1 on MPS B to verify the health of MPS B.</p>
<p>3. <input type="checkbox"/></p>	<p>Procedure Complete.</p>	<p>This procedure is complete.</p>

**4.2.3 Pre and Post Upgrade Backups**

**Procedure 6: Pre and Post Upgrade Backups**

<p><b>S</b></p>	<p>This procedure performs the pre and post upgrade backups.</p>
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**Procedure 6: Pre and Post Upgrade Backups**

<b>T E P #</b>	Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.	
	IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.	
	1. <input type="checkbox"/>	<b>MPS A:</b> Backup system configuration on MPS A.
	Execute Appendix A.3 to backup the system configuration on MPS A.	
	2. <input type="checkbox"/>	<b>MPS B:</b> Backup system configuration on MPS B.
	Execute Appendix A.3 to backup the system configuration on MPS B.	
	3. <input type="checkbox"/>	<b>MPS B:</b> Backup RTDB database.
Execute Appendix A.5 to backup the RTDB database on MPS B.		
4. <input type="checkbox"/>	<b>MPS A:</b> Backup PDB database (EPAP only).	
Execute Appendix A.4 to backup the PDB on MPS A of the Active PDBA. <b>NOTE: Only execute this step if the MPS-A is configured as a Provisionable node. Check the output of Procedure 2, step 9 to verify if MPS A is Provisionable or not.</b>		
5. <input type="checkbox"/>	<b>MPS A:</b> Backup user database.	
Execute Appendix A.6 to backup the user database on MPS A.		
6. <input type="checkbox"/>	<b>MPS A:</b> Procedure Complete.	
This procedure is complete.		

**4.2.4 Pre-Upgrade System Date/Time Check****Procedure 7: Pre-Upgrade System Time Check**

<b>S T E P #</b>	This procedure performs the pre-upgrade system time check.	
	Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.	
IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR <u>UPGRADE ASSISTANCE</u> .		
<p>The MPS servers make use of NTP to keep time synchronized between servers. Under some circumstances, either at initial installation in the customer's network or due to power interruption and battery failure, it is possible for an MPS server to have a system date/time value too large for NTP to correct. If the system time is 20 minutes or more off from the real time, NTP cannot correct it.</p> <p>Check the date/time on <i>both</i> MPS-A and MPS-B servers, and correct the system time on any server off by more than 15 minutes from the real time.</p>		
1. <input type="checkbox"/>	<b>MPS A:</b> Login as the user "root".	If not already logged-in, then login at MPS A: <b>&lt;hostname&gt; console login: root password: &lt;password&gt;</b>
2. <input type="checkbox"/>	<b>MPS A:</b> Stop Network Time Protocol daemon.	Use the service command to check the status of NTPD.  <b># service ntpd status</b>  If running, use the service command to stop NTPD.  <b># service ntpd stop</b>  An example output of this command is as follows:

		Shutting down ntpd [OK]
3. <input type="checkbox"/>	MPS A: Verify Network Time Protocol daemon is stopped.	To verify the status of ntpd, use the following command  <b># service ntpd status</b>  Ensure the output is as follows:  ntpd is stopped
4. <input type="checkbox"/>	MPS A: Execute the "date" command.	Execute the "date" command and examine the result. <b># ssh mate date; date</b> Tue Oct 7 07:22:39 EDT 2011 Tue Oct 7 07:22:39 EDT 2011
5. <input type="checkbox"/>	MPS A: Compare result to the real time.	Compare the result from the "date" command in the previous step to the real time. If the difference is 15 minutes or less, then this procedure is complete, Otherwise if the difference exceeds 15 minutes, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.
6. <input type="checkbox"/>	MPS A: Procedure Complete.	This procedure is complete

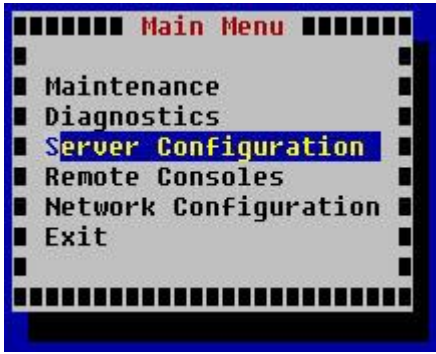
## 5. SOFTWARE INSTALLATION PROCEDURES

Pre install configuration (Section 5.1) and initial installation of EPAP (Section 5.2) can be done on any of the server in the mated pair in any order. These operations can be done simultaneously on both the servers.


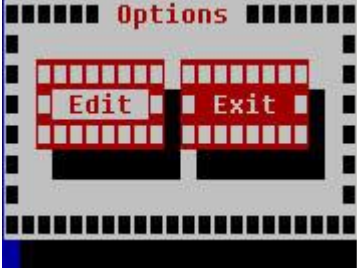

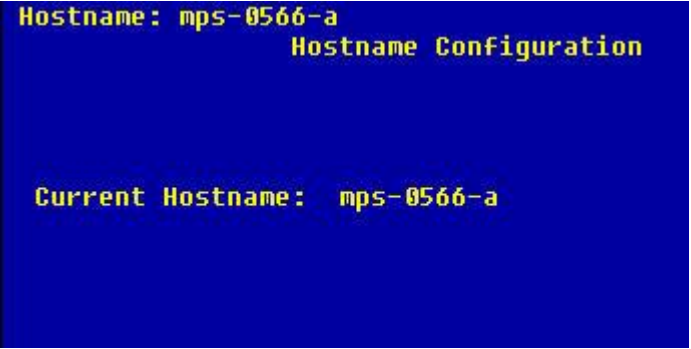
### 5.1 Pre Installation Configuration

#### 5.1.1 Server A

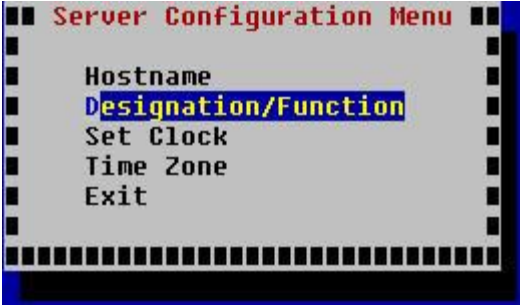
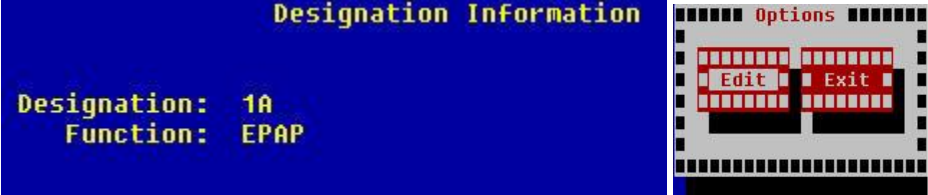
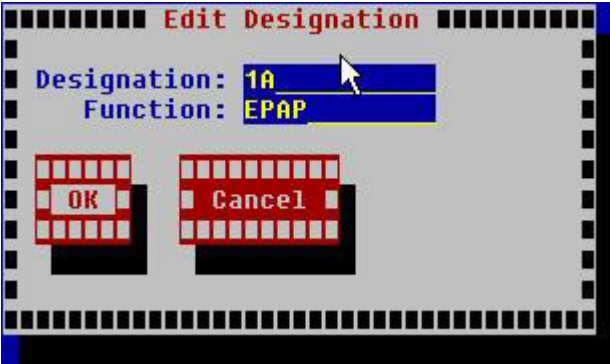
##### Procedure 8: Set up hostname, Server Designation and Time on Server A

S T E P #	<p>This procedure provides instructions to perform pre configuration for an initial install of the application.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT THE TEKELEC CUSTOMER CARE CENTER AND ASK FOR ASSISTANCE.</p>	
<p><b>IMPORTANT: Installation of the Operating System on a Tekelec Application Server should be completed before starting installation procedure. Refer to [5] for TPD installation guide.</b></p>		
1. <input type="checkbox"/>	Connect to the Server.	<p>If not already connected, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>On the back of the T1200 A server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the 'dongle' labeled 'S1' on the T1200 B server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B B card's adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p>
2. <input type="checkbox"/>	Log in as "root" user.	<p>If not already logged in, then login as "root":</p> <pre>[hostname] consolelogin: root password: password</pre>
3. <input type="checkbox"/>	Start platcfg utility.	<pre># su - platcfg</pre>
4. <input type="checkbox"/>	Navigate to the <b>Server Configuration</b> screen.	<p>Select <b>Server Configuration</b> and press [ENTER]</p>  <p>The screenshot shows a terminal window with a blue border. At the top, it says 'Main Menu' in red. Below that, there is a list of menu items: Maintenance, Diagnostics, Server Configuration (highlighted in blue), Remote Consoles, Network Configuration, and Exit. The background is black with white text.</p>
5. <input type="checkbox"/>	Navigate to the <b>Hostname</b> screen.	<p>Select <b>Hostname</b> and press [ENTER]</p>



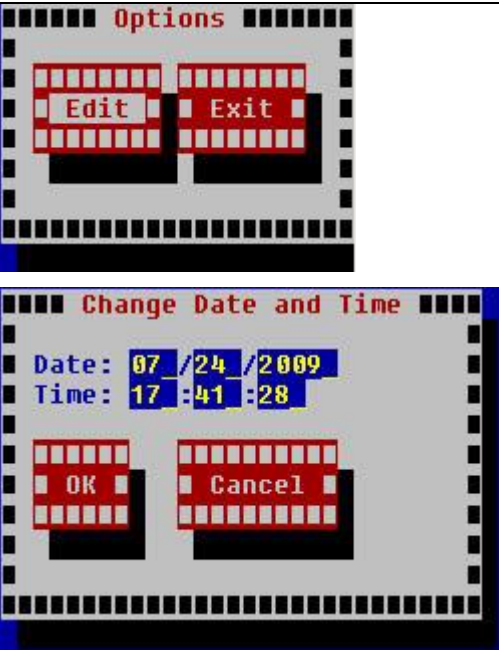
Procedure 8: Set up hostname, Server Designation and Time on Server A

		
<p>6. <input type="checkbox"/></p>	<p>Select <b>Edit</b> to edit the hostname.</p>	<p>Select <b>Edit</b> and press [ENTER]</p> 
<p>7. <input type="checkbox"/></p>	<p>Enter the hostname and press ok.</p>	<p>Delete the default entry and enter the Hostname as mps-xxxx-a where xxxx is the last 4 digits of server serial number. Press OK when done.</p> 
<p>8. <input type="checkbox"/></p>	<p>Exit Back to the Server Configuration Menu.</p>	<p>Select <b>EXIT</b> to exit back to the Server Configuration Menu. Verify that the hostname has been properly set.</p> 

**Procedure 8: Set up hostname, Server Designation and Time on Server A**

<p>9. <input type="checkbox"/></p>	<p>Navigate to the <b>Designation/Function</b> menu option.</p>	<p>Select <b>Designation/Function</b> and press [ENTER]</p> 
<p>10. <input type="checkbox"/></p>	<p>View the current designation and function.</p>	<p>The screen will show the current designation and function setting. On initial install, these fields are blank.</p>  <p>If not blank, the values should be as follows.</p> <ol style="list-style-type: none"> <li>1. The Designation is “1A” for the A server</li> <li>2. The Function field should be set to EPAP.</li> </ol> <p>If both the fields are blank or either value is not correct, then select <b>Edit</b> and press [ENTER]. If both values are correct, select <b>Exit</b>, press [ENTER] and skip the next step.</p>
<p>11. <input type="checkbox"/></p>	<p>View the current designation and function.</p>	<p>Skip to Step 13 if Exit was selected in the previous step, otherwise if Edit was selected, delete the current designation and function if already set, and type in the desired values. Enter the appropriate designation in the Designation field (Note: the designation must be capitalized). Select OK and press [ENTER].</p> 
<p>12. <input type="checkbox"/></p>	<p>Verify that the Designation and Function information is correct then select</p>	

**Procedure 8: Set up hostname, Server Designation and Time on Server A**

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




**Procedure 8: Set up hostname, Server Designation and Time on Server A**


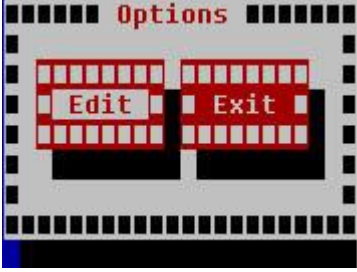
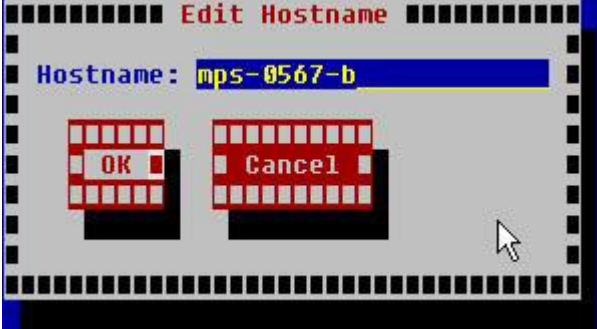
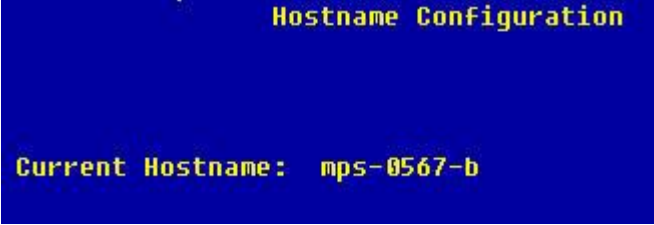
<p>15. <input type="checkbox"/></p>	<p>Verify that the Date and Time is correct then select and press "Exit".</p>	 <p>The screenshot shows a blue terminal window titled "Time Configuration" with the text "Current Date: 07/24/2009" and "Current Time: 17:41:28". Below it is a grey menu titled "Options" with two red buttons labeled "Edit" and "Exit".</p>
<p>16. <input type="checkbox"/></p>	<p>Exit from platcfg menu.</p>	<p>Select <b>EXIT</b> until the platcfg menu is closed and the command line is displayed.</p>
<p>17. <input type="checkbox"/></p>	<p>Reboot the Server.</p>	<p><b># reboot</b></p>
<p>18. <input type="checkbox"/></p>	<p>Procedure complete.</p>	<p>Procedure is complete.</p>

### 5.1.2 Server B

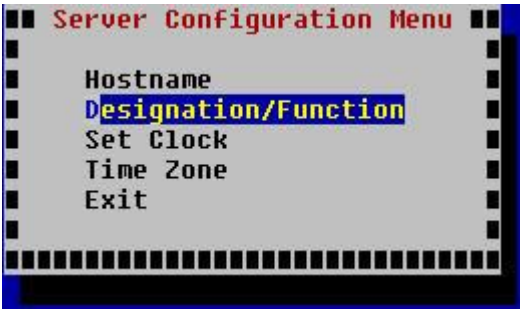
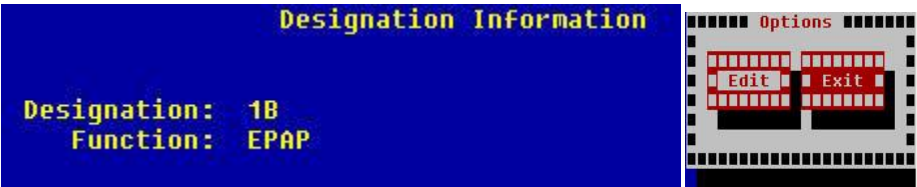
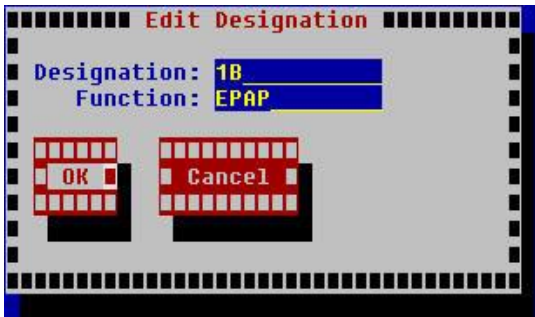
#### Procedure 9: Set up hostname, Server Designation and Time on Server B

<p><b>S</b> <b>T</b> <b>E</b> <b>P</b> <b>#</b></p>	<p>This procedure provides instructions to perform pre configuration for an initial install of the application.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT THE TEKELEC CUSTOMER CARE CENTER AND ASK FOR ASSISTANCE.</p>	
<p><b>IMPORTANT: Installation of the Operating System on a Tekelec Application Server should be completed before starting installation procedure. Refer to [5] for TPD installation.</b></p>		
<p>1. <input type="checkbox"/></p>	<p>Connect to the Server.</p>	<p>If not already connected, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>For connecting the T1200 B server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the 'dongle' labeled 'S1' on the T1200 A server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B A card's adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p>
<p>2. <input type="checkbox"/></p>	<p>Log in as "root" user.</p>	<p>If not already logged in, then login as 'root':  <b>[hostname] consolelogin: root</b>  <b>password: password</b></p>
<p>3. <input type="checkbox"/></p>	<p>Start platcfg utility.</p>	<p><b># su - platcfg</b></p>
<p>4. <input type="checkbox"/></p>	<p>Navigate to the <b>Server Configuration</b> screen.</p>	<p>Select <b>Server Configuration</b> and press [ENTER]</p>  <p>The screenshot shows a terminal window with a 'Main Menu' header. The menu items are: Maintenance, Diagnostics, Server Configuration (highlighted with a blue bar), Remote Consoles, Network Configuration, and Exit. The entire menu is enclosed in a blue border.</p>
<p>5. <input type="checkbox"/></p>	<p>Navigate to the <b>Hostname</b> screen.</p>	<p>Select <b>Hostname</b> and press [ENTER]</p>



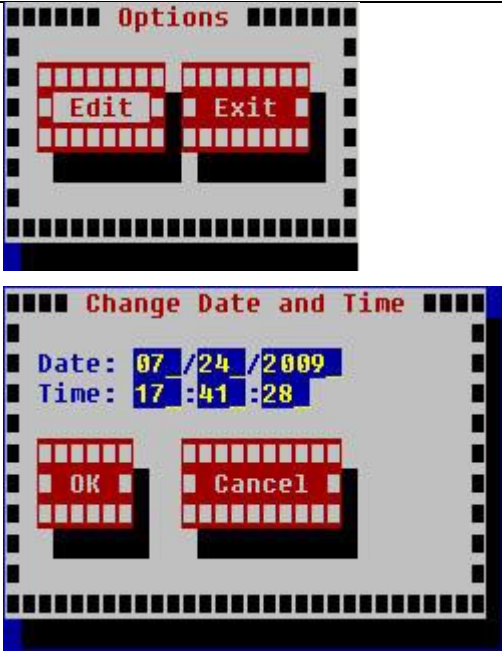
**Procedure 9: Set up hostname, Server Designation and Time on Server B**

		
<p>6. <input type="checkbox"/></p>	<p>Select <b>Edit</b> to edit the hostname.</p>	<p>Select <b>Edit</b> and press [ENTER]</p> 
<p>7. <input type="checkbox"/></p>	<p>Enter the hostname and press ok.</p>	<p>Delete the default entry and enter the Hostname as mps-xxxx-b where xxxx is the last 4 digits of server serial number. Press OK when done.</p> 
<p>8. <input type="checkbox"/></p>	<p>Exit Back to the Server Configuration Menu.</p>	<p>Select <b>EXIT</b> to exit back to the Server Configuration Menu. Verify that the hostname has been properly set.</p> 
<p>9. <input type="checkbox"/></p>	<p>Navigate to the <b>Designation/Function</b> menu option.</p>	<p>Select <b>Designation/Function</b> and press [ENTER]</p>


**Procedure 9: Set up hostname, Server Designation and Time on Server B**

		
<p>10. <input type="checkbox"/></p>	<p>View the current designation and function.</p>	<p>The screen will show the current designation and function setting. On initial install, these fields are blank.</p>  <p>If not blank the values should be as follows.</p> <ol style="list-style-type: none"> <li>1. The Designation is “1B” for the B server</li> <li>2. The Function field should be set to EPAP.</li> </ol> <p>If either value is not correct, then select <b>Edit</b> and press [ENTER].          If both values are correct, select <b>Exit</b>, press [ENTER] and skip the next step.</p>
<p>11. <input type="checkbox"/></p>	<p>View the current designation and function.</p>	<p>Skip to Step 13 if Exit was selected in the previous step, otherwise if Edit was selected, delete the current designation and function if already set, and type in the desired values. Enter the appropriate designation in the Designation field (Note: The designation must be capitalized).          Select <b>OK</b> and press [ENTER].</p> 
<p>12. <input type="checkbox"/></p>	<p>Verify that the Designation and Function information is correct then select and press “Exit”.</p>	

**Procedure 9: Set up hostname, Server Designation and Time on Server B**

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

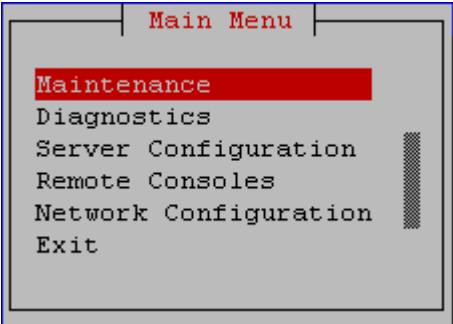
**Procedure 9: Set up hostname, Server Designation and Time on Server B**

<p>15. <input type="checkbox"/></p>	<p>Verify that the Date and Time is correct then select and press "Exit".</p>	 <p>The screenshot shows a blue terminal window titled "Time Configuration" with the text "Current Date: 07/24/2009" and "Current Time: 17:41:28". Below it is a white terminal window titled "Options" with two red buttons labeled "Edit" and "Exit".</p>
<p>16. <input type="checkbox"/></p>	<p>Exit from platcfg menu.</p>	<p>Select <b>EXIT</b> until the platcfg menu is closed and the command line is displayed.</p>
<p>17. <input type="checkbox"/></p>	<p>Reboot the Server.</p>	<p><b># reboot</b></p>
<p>18. <input type="checkbox"/></p>	<p>Procedure complete.</p>	<p>Procedure is complete.</p>

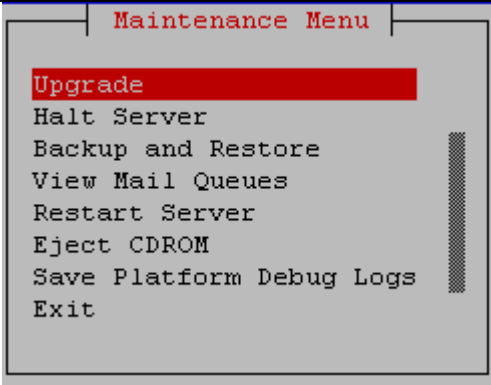
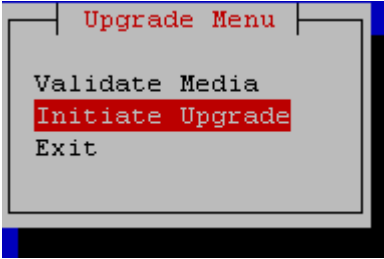
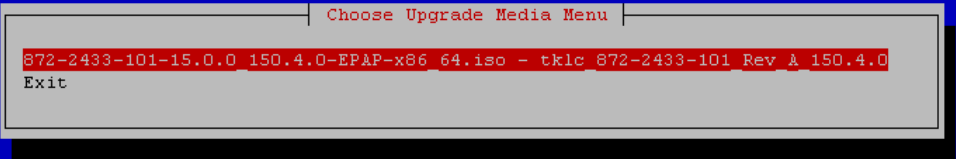
## 5.2 Install the Application

### 5.2.1 Installing the Application on Side 1A

#### Procedure 10: Install the Application on side 1A

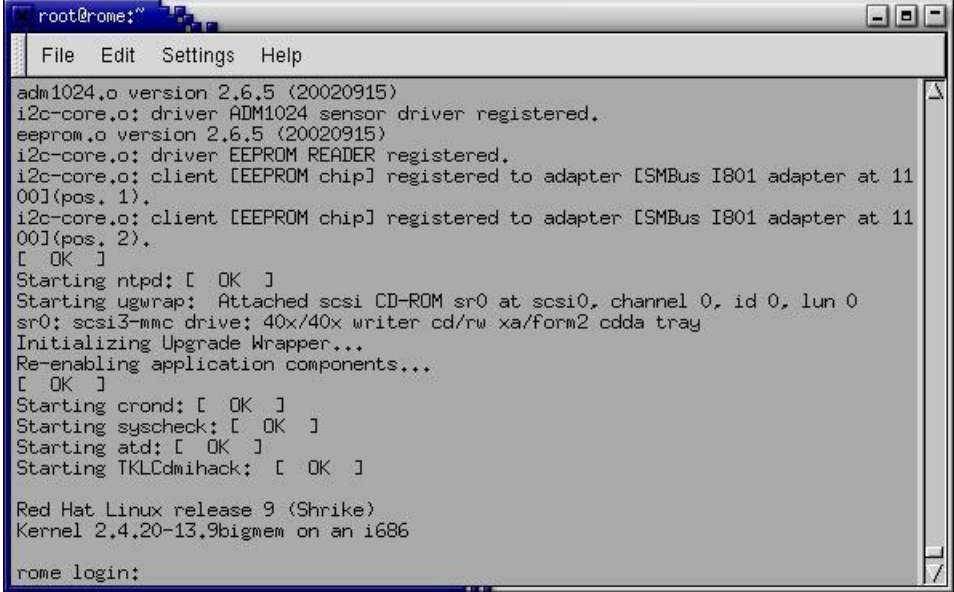
<b>S T E P #</b>	<p>This procedure installs the application on the server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT THE TEKELEC CUSTOMER CARE CENTER AND ASK FOR ASSISTANCE.</p>	
1. <input type="checkbox"/>	<b>MPS A:</b> Install EPAP on 1A.	Perform Procedure in B.1 or B.2 or copy EPAP 15.0 ISO to /var/TKLC/upgrade directory.
2. <input type="checkbox"/>	Create a terminal window and log into MPS A.	<p>If not already connected, connect to the T1200 server/E5-APP-B card via the serial Port.</p> <p>On the back of the T1200 A server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the 'dongle' labeled 'S1' on the T1200 B server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B B card's adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p>
3. <input type="checkbox"/>	<b>MPS A:</b> Login prompt is displayed.	<p>&lt;hostname&gt; console login:</p> <p>Note: Hit enter if no login prompt is displayed.</p>
4. <input type="checkbox"/>	<b>MPS A:</b> log in as "root" user.	<p>[hostname] consolelogin: root</p> <p>password: password</p>
5. <input type="checkbox"/>	<b>MPS A:</b> Start platcfg utility.	# su - platcfg
6. <input type="checkbox"/>	<b>MPS A:</b> Select the Maintenance submenu.	<p>The platcfg <b>Main Menu</b> appears.</p> <p>On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p> <div style="text-align: center;">  <p>The screenshot shows a terminal window titled 'Main Menu'. The menu items are: Maintenance (highlighted with a red bar), Diagnostics, Server Configuration, Remote Consoles, Network Configuration, and Exit. A vertical cursor is visible to the right of the menu items.</p> </div>
7. <input type="checkbox"/>	<b>MPS A:</b> Navigate to the Initiate Upgrade menu.	Select the <b>Upgrade</b> menu and press [ENTER].

Procedure 10: Install the Application on side 1A

		 <p>Maintenance Menu</p> <pre> Upgrade Halt Server Backup and Restore View Mail Queues Restart Server Eject CDROM Save Platform Debug Logs Exit         </pre> <p>Select the <b>Initiate Upgrade</b> menu and press [ENTER].</p>  <p>Upgrade Menu</p> <pre> Validate Media Initiate Upgrade Exit         </pre>
<p>8. <input type="checkbox"/></p>	<p><b>MPS A:</b> Select the Upgrade Media.</p>	<p>The screen displays a message that it is searching for upgrade media. When the upgrade media is found, an Upgrade Media selection menu appears similar to the example below. Select the desired upgrade media and press [ENTER]. There should only be one selection available, as in the example below.</p>  <p>Choose Upgrade Media Menu</p> <pre> 872-2433-101-15.0.0_150.4.0-EPAP-x86_64.iso - tk1c 872-2433-101 Rev A 150.4.0 Exit         </pre>
<p>9. <input type="checkbox"/></p>	<p><b>MPS A:</b> Upgrade proceeds.</p>	<p>The screen displays the output like following, indicating that the upgrade software is first validating the media, and then proceeding with the upgrade.</p> <pre> Initializing Upgrade Wrapper ... Validating packages ...         </pre>
<p>10. <input type="checkbox"/></p>	<p><b>MPS A:</b> Upgrade proceeds.</p>	<p>Many informational messages appear on the terminal screen as the upgrade proceeds. The messages are not shown here for clarity sake. When installation is complete, the server reboots.</p>
<p>11. <input type="checkbox"/></p>	<p><b>MPS A:</b> Upgrade completed.</p>	<p>After the final reboot, the screen displays the login prompt as in the example below.</p>



Procedure 10: Install the Application on side 1A

		
<p>12. <input type="checkbox"/></p>	<p><b>MPS A:</b> log in as “root” user.</p>	<p><b>[hostname] consolelogin: root</b>  <b>password: <i>password</i></b></p>
<p>13. <input type="checkbox"/></p>	<p><b>MPS A:</b> Check the Upgrade log.</p>	<p>Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.</p> <p><b># grep -i error /var/TKLC/log/upgrade/upgrade.log</b></p> <p>Check the output of the upgrade log, Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F, if the output contains any errors beside the following:</p> <ol style="list-style-type: none"> <li>1. <b>myisamchk:error</b> Those output lines are expected and are not actual upgrade errors</li> <li>2. Variable and RPMs that might contain the word error in them</li> </ol> <p>Example:  1340737587::Error: No supported management controller found  1340738300::perl-Class-ErrorHandler  #####  1340738322::Checking perl-Class-ErrorHandler-0.01-15.0.0_150.3.0.noarch.rpm:  PASSED</p> <p>All those messages are expected, and therefore aren't considered errors. Also note that sometime a carriage return is inserted in the log file causing some of the error messages to appear truncated. This is acceptable and should be ignored.</p> <p><b># grep -i warning /var/TKLC/log/upgrade/upgrade.log</b></p> <p>Examine the output of the above command to determine if any warnings were reported. Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F, if the output contains any warnings beside the following:</p> <pre>1337341727::WARNING: Source file does not exist...cannot get diff! 1337341730::WARNING: SOURCE: /var/lib/misc/prelink.force 1337341832::useradd: warning: the home directory already exists. 1337342144::WARNING: A new file was added to xml alarm files...reparsing xml... 1337342145::WARNING: FILE: /usr/TKLC/plat/etc/alarms/alarms_mps.xml</pre>

**Procedure 10: Install the Application on side 1A**

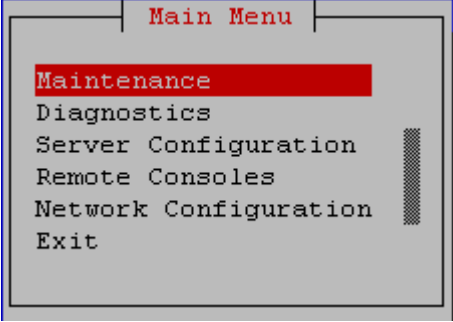
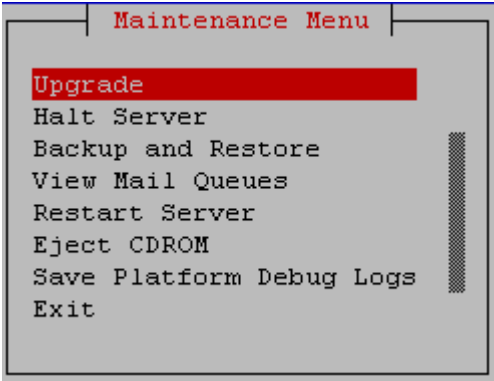
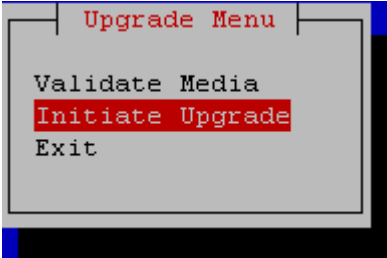
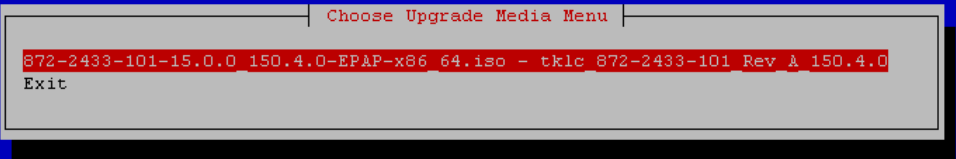

		<pre>1337342152::TKLCepap-HA #####warning: group root} does not exist - using root 1337342163::WARNING: Stale PID file /var/TKLC/run/RunAndLog/2981.pid detected!</pre> <p>Refer to section 3.6 to know more about logging.</p>
14.	<b>MPS A:</b> Check that the upgrade completed successfully.	<b># grep "UPGRADE IS COMPLETE" /var/TKLC/log/upgrade/upgrade.log</b>
15.	<b>MPS A:</b> Select the most recent upgrade log.	<p>Verify that the message "UPGRADE IS COMPLETE" is displayed. If it is not, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p> <pre>1252687571:: UPGRADE IS COMPLETE</pre>
16.	<b>MPS A:</b> Install Complete.	Install Procedure is complete.

**5.2.2 Installing the Application on Side 1B**

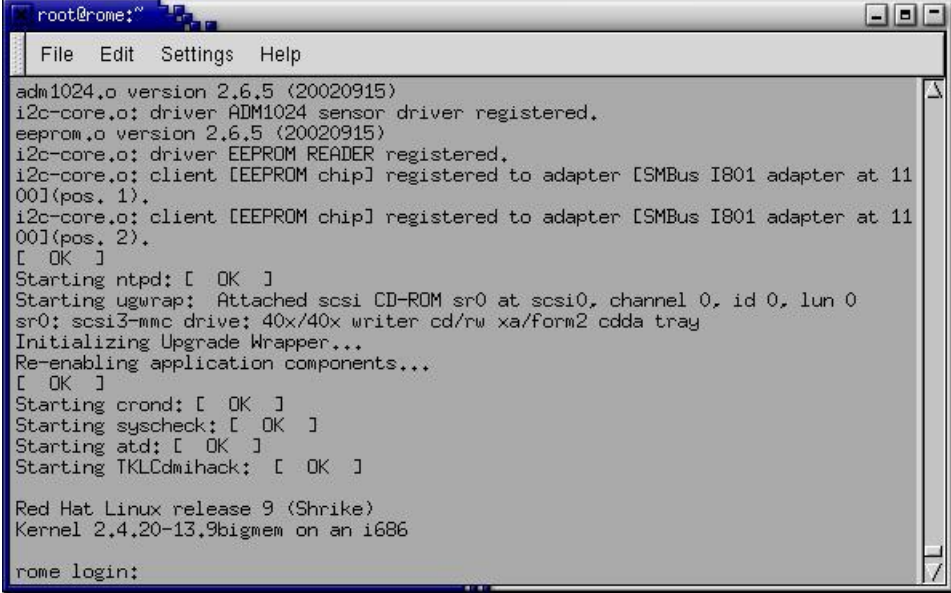
**Procedure 11: Install the Application on side 1B**

<p><b>S</b> <b>T</b> <b>E</b> <b>P</b> <b>#</b></p>	<p>This procedure installs the application on the server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT THE TEKELEC CUSTOMER CARE CENTER AND ASK FOR ASSISTANCE.</p>	
	1.	<p><b>MPS B:</b> Install 1B.</p> <p>Perform Procedure in B.1 or B.2 or copy EPAP 15.0 ISO to /var/TKLC/upgrade directory.</p>
	2.	<p>Create a terminal window log into MPS B.</p> <p>If not already connected, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>For connecting the T1200 B server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the 'dongle' labeled 'S1' on the T1200 A server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card's adapter. The cable should be disconnected at the point where it connects to the serial port labeled 'S1' on the E5-APP-B A card's adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p>
	3.	<p><b>MPS B:</b> Login prompt is displayed.</p> <p>&lt;hostname&gt; console login:</p> <p>Note: Hit enter if no login prompt is displayed.</p>
	4.	<p><b>MPS B:</b> log in as "root" user.</p> <p><b>[hostname] consolelogin: root</b> <b>password: password</b></p>
	5.	<p><b>MPS B:</b> Start platcfg utility.</p> <p><b># su - platcfg</b></p>
	6.	<p><b>MPS B:</b> Select the</p> <p>The platcfg <b>Main Menu</b> appears. On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p>

**Procedure 11: Install the Application on side 1B**

<input type="checkbox"/>	<p>Maintenance submenu.</p>	
<p>7.</p> <input type="checkbox"/>	<p><b>MPS B:</b> Navigate to the Initiate Upgrade menu.</p>	<p>Select the <b>Upgrade</b> menu and press [ENTER].</p>  <p>Select the <b>Initiate Upgrade</b> menu and press [ENTER].</p> 
<p>8.</p> <input type="checkbox"/>	<p><b>MPS B:</b> Select the Upgrade Media.</p>	<p>The screen displays a message that it is searching for upgrade media. When the upgrade media is found, an Upgrade Media selection menu appears similar to the example below. Select the desired upgrade media and press [ENTER]. There should only be one selection available, as in the example below.</p> 
<p>9.</p> <input type="checkbox"/>	<p><b>MPS B:</b> Upgrade proceeds.</p>	<p>The screen displays the following, indicating that the upgrade software is first validating the media, and then proceeding with the upgrade.</p> 

**Procedure 11: Install the Application on side 1B**

		<p>Validating packages ...</p>
<p>10. <input type="checkbox"/></p>	<p><b>MPS B:</b> Upgrade proceeds.</p>	<p>Many informational messages appear on the terminal screen as the upgrade proceeds. The messages are not shown here for clarity sake.</p> <p>When installation is complete, the server reboots.</p>
<p>11. <input type="checkbox"/></p>	<p><b>MPS B:</b> Upgrade completed.</p>	<p>After the final reboot, the screen displays the login prompt as in the example below.</p>  <p>The screenshot shows a terminal window with the following text:          root@rome:~          File Edit Settings Help          adm1024.o version 2.6.5 (20020915)          i2c-core.o: driver ADM1024 sensor driver registered.          eeprom.o version 2.6.5 (20020915)          i2c-core.o: driver EEPROM READER registered.          i2c-core.o: client [EEPROM chip] registered to adapter [SMBus I801 adapter at 1100](pos. 1).          i2c-core.o: client [EEPROM chip] registered to adapter [SMBus I801 adapter at 1100](pos. 2).          [ OK ]          Starting ntpd: [ OK ]          Starting ugwrap: Attached scsi CD-ROM sr0 at scsi0, channel 0, id 0, lun 0          sr0: scsi3-mmc drive: 40x/40x writer cd/rw xa/form2 cdda tray          Initializing Upgrade Wrapper...          Re-enabling application components...          [ OK ]          Starting crond: [ OK ]          Starting syscheck: [ OK ]          Starting atd: [ OK ]          Starting TKLcdmihack: [ OK ]          Red Hat Linux release 9 (Shrike)          Kernel 2.4.20-13.9bigmem on an i686          rome login:</p>
<p>12. <input type="checkbox"/></p>	<p><b>MPS B:</b> log in as “root” user.</p>	<p><b>[hostname] consolelogin: root</b>  <b>password: password</b></p>
<p>13. <input type="checkbox"/></p>	<p><b>MPS B:</b> Check the Upgrade log.</p>	<p>Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.</p> <p><b># grep -i error /var/TKLC/log/upgrade/upgrade.log</b></p> <p>Check the output of the upgrade log, Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F, if the output contains any errors beside the following:</p> <ol style="list-style-type: none"> <li><b>1. myisamchk:error</b> Those output lines are expected and are not actual upgrade errors</li> <li>Variable and RPMs that might contain the word error in them</li> </ol> <p>Example:          1340737587::Error: No supported management controller found          1340738300::perl-Class-ErrorHandler          #####          1340738322::Checking perl-Class-ErrorHandler-0.01-15.0.0_150.3.0.noarch.rpm:          PASSED</p> <p>All those messages are expected, and therefore aren't considered errors. Also note that sometime a carriage return is inserted in the log file causing some of the error messages to appear truncated. This is acceptable and should be ignored.</p>

**Procedure 11: Install the Application on side 1B**

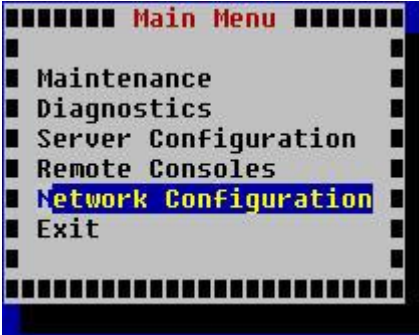
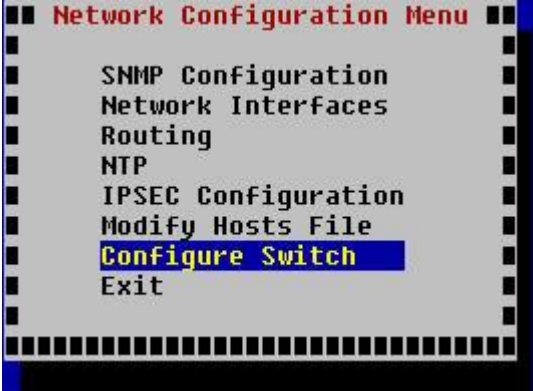

		<p><b># grep -i warning /var/TKLC/log/upgrade/upgrade.log</b></p> <p>Examine the output of the above command to determine if any warnings were reported. Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F, if the output contains any warnings beside the following:</p> <pre>1337341727::WARNING: Source file does not exist...cannot get diff! 1337341730::WARNING: SOURCE: /var/lib/misc/prelink.force 1337341832::useradd: warning: the home directory already exists. 1337342144::WARNING: A new file was added to xml alarm files...reparsing xml... 1337342145::WARNING: FILE: /usr/TKLC/plat/etc/alarms/alarms_mps.xml 1337342152::TKLCepap-HA #####warning: group root} does not exist - using root 1337342163::WARNING: Stale PID file /var/TKLC/run/RunAndLog/2981.pid detected!</pre> <p>Refer to section 3.6 to know more about logging.</p>
<input type="checkbox"/>	<b>MPS B:</b> Check that the upgrade completed successfully.	<p><b># grep "UPGRADE IS COMPLETE" /var/TKLC/log/upgrade/upgrade.log</b></p>
<input type="checkbox"/>	<b>MPS B:</b> Select the most recent upgrade log.	<p>Verify that the message “UPGRADE IS COMPLETE” is displayed. If it is not, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p> <pre>1252687571:: UPGRADE IS COMPLETE</pre>
<input type="checkbox"/>	<b>MPS B:</b> Install Complete.	Install Procedure is complete.

**5.2.3 Switch Configuration**



**Procedure 12: Switch Configuration**

<b>S T E P #</b>	<p>This procedure Configures the Switches of a new Installed T1200/E5-APP-B EPAP Server Pair.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT THE TEKELEC CUSTOMER CARE CENTER AND ASK FOR ASSISTANCE.</p>	
<input type="checkbox"/>	1. Make the cross-over cable connections.	<p style="text-align: center;"><b>NOTE: THIS IS IMPORTANT</b></p> <p>CONNECT the cross-over cable from <b>Port 1</b> of <b>Switch1A</b> to <b>Port 1</b> of <b>Switch1B</b>.</p> <p>DISCONNECT the cross-over cable from <b>Port 2</b> of <b>Switch1A</b> to <b>Port 2</b> of <b>Switch1B</b>. Please make a note that the switch configuration should only be attempted by a skilled technician and not all.</p> <p>All uplinks should be removed while switch configuration.</p> <p>There should not be any loop in the switches during their configuration.</p>
<input type="checkbox"/>	2. <b>MPS B:</b> log in as “root” user.	<pre>[hostname] consolelogin: root password: password</pre>

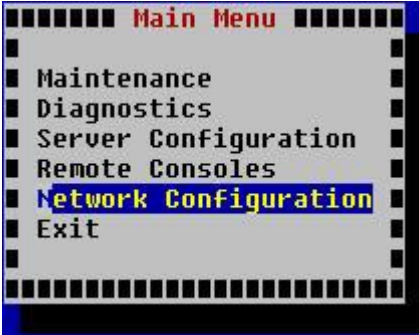
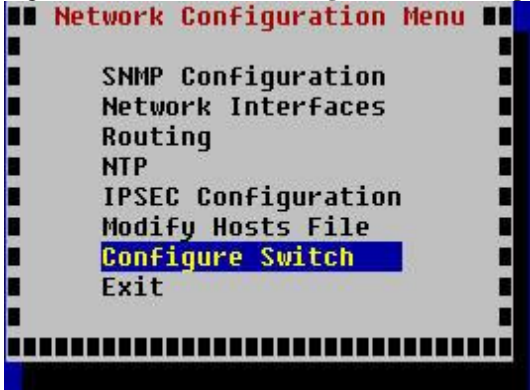

**Procedure 12: Switch Configuration**

<p>3. <input type="checkbox"/></p>	<p><b>MPS B:</b> Start platcfg utility.</p>	<p># su - platcfg</p>
<p>4. <input type="checkbox"/></p>	<p><b>MPS B:</b> Navigate to the Network Configuration Menu.</p>	<p>On the platcfg <b>Main Menu</b>, select <b>Network Configuration</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a menu titled "Main Menu". The menu items are: Maintenance, Diagnostics, Server Configuration, Remote Consoles, Network Configuration (highlighted in blue), and Exit.</p>
<p>5. <input type="checkbox"/></p>	<p><b>MPS B:</b> Navigate to the Configure Switch Menu.</p>	<p>On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a menu titled "Network Configuration Menu". The menu items are: SNMP Configuration, Network Interfaces, Routing, NTP, IPSEC Configuration, Modify Hosts File, Configure Switch (highlighted in blue), and Exit.</p>
<p>6. <input type="checkbox"/></p>	<p><b>MPS B:</b> Select Switch1B.</p>	<p>On the Select Switch Menu, select <b>Switch1B – Second Switch in Frame 1</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a menu titled "Select Switch Menu". The menu items are: switch1A - Upper Switch in Frame 1, switch1B - Second Switch in Frame 1 (highlighted in blue), switch1C - Third Switch in Frame 1, switch1D - Lower Switch in Frame 1, All Switches, and Exit.</p>
<p>7. <input type="checkbox"/></p>	<p><b>MPS B:</b> Confirm Switch 1B Configuration.</p>	<p>Select <b>Yes</b> and press [ENTER] to configure Switch 1B.</p>

Procedure 12: Switch Configuration


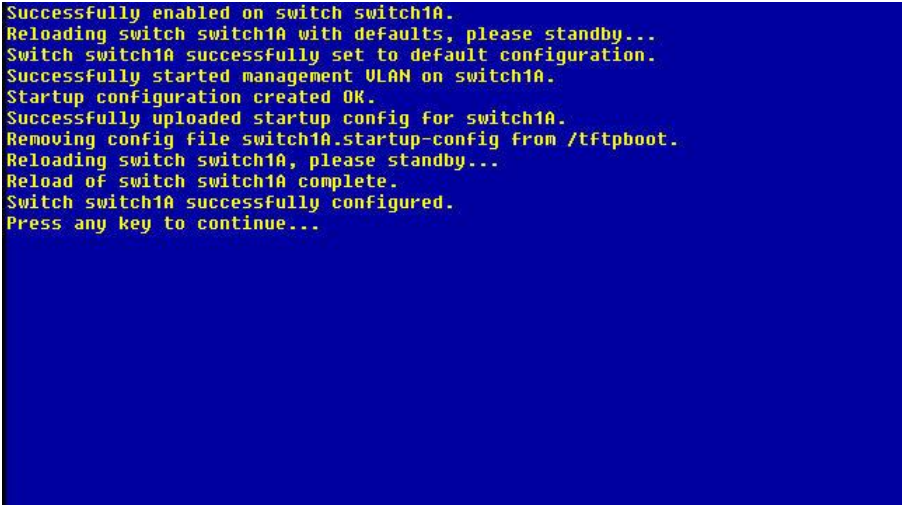

		
<p>8. <input type="checkbox"/></p>	<p><b>MPS B:</b> Switch Configuration Screen.</p>	<p>Configuring the switch takes about 10 minutes, once complete press [ENTER] to continue.</p>  
<p>9. <input type="checkbox"/></p>	<p><b>MPS B:</b> Exit out of platcfg.</p>	<p>Select Exit and press [ENTER] to return to the Network Configuration Menu.                  Select Exit and press [ENTER] to return to the Main Menu.                  Select Exit and press [ENTER] to exit out of platcfg.</p>
<p>10. <input type="checkbox"/></p>	<p><b>MPS A:</b> Connect to Server 1A.</p>	<p>Now that Switch 1B is configured, we need to configure switch 1A. Connect to server 1A to configure switch 1A</p> <pre>[hostname] consolelogin: root password: password</pre>
<p>11. <input type="checkbox"/></p>	<p><b>MPS A:</b> Start platcfg.</p>	<pre># su - platcfg</pre>

**Procedure 12: Switch Configuration**

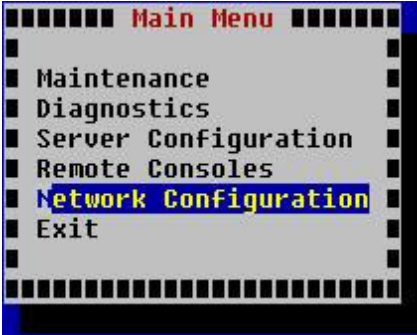
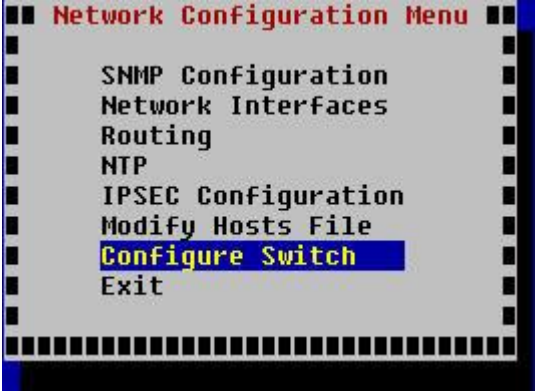
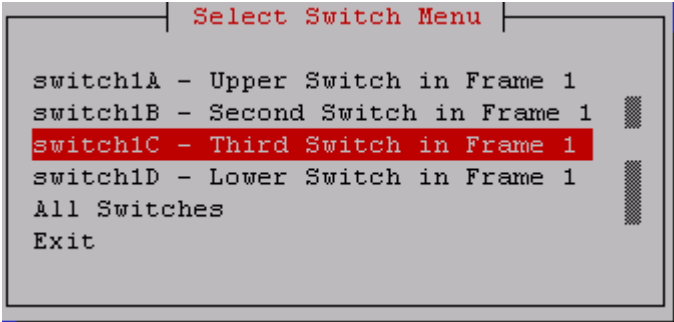
<input type="checkbox"/>	utility	
12. <input type="checkbox"/>	<b>MPS A:</b> Navigate to the Network Configuration Menu.	On the platcfg <b>Main Menu</b> , select <b>Network Configuration</b> and press [ENTER].   <p>The screenshot shows a terminal window titled "Main Menu" with a dashed border. The menu items are: Maintenance, Diagnostics, Server Configuration, Remote Consoles, Network Configuration (highlighted in blue), and Exit.</p>
13. <input type="checkbox"/>	<b>MPS A:</b> Navigate to the Configure Switch Menu.	On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].   <p>The screenshot shows a terminal window titled "Network Configuration Menu" with a dashed border. The menu items are: SNMP Configuration, Network Interfaces, Routing, NTP, IPSEC Configuration, Modify Hosts File, Configure Switch (highlighted in blue), and Exit.</p>
14. <input type="checkbox"/>	<b>MPS A:</b> Select Switch1A.	On the Select Switch Menu, select <b>Switch1A – Upper Switch in Frame 1</b> and press [ENTER].   <p>The screenshot shows a terminal window titled "Select Switch Menu" with a dashed border. The menu items are: switch1A - Upper Switch in Frame 1 (highlighted in blue), switch1B - Second Switch in Frame 1, switch1C - Third Switch in Frame 1, switch1D - Lower Switch in Frame 1, All Switches, and Exit.</p>
15. <input type="checkbox"/>	<b>MPS A:</b> Confirm Switch 1A Configuration.	Select <b>Yes</b> and press [ENTER] to configure Switch 1A.



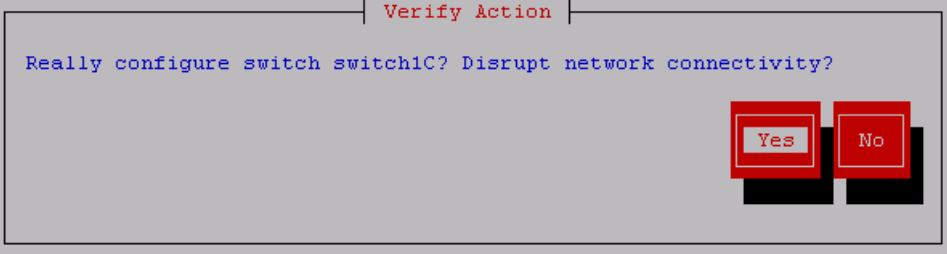
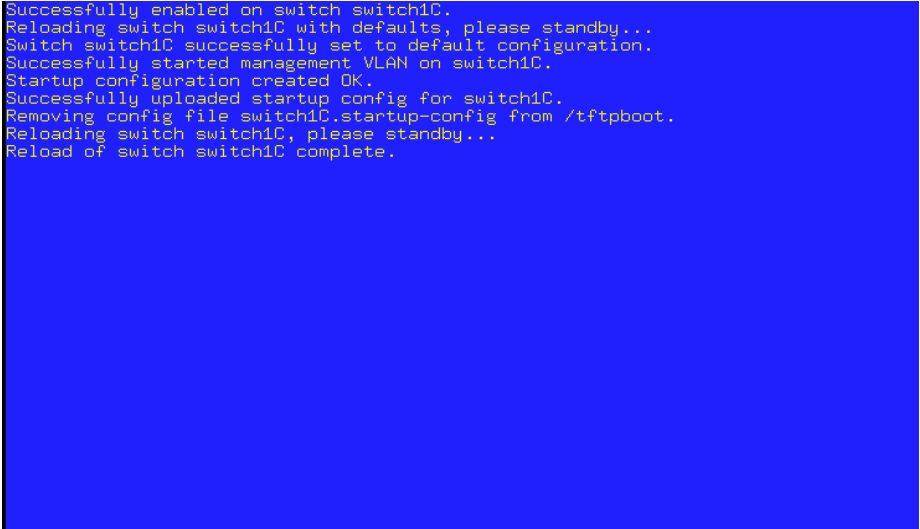

Procedure 12: Switch Configuration

		
<p>16. <input type="checkbox"/></p>	<p><b>MPS A:</b> Navigate to the Configure Switch Menu.</p>	<p>Configuring the switch takes about 10 minutes, once complete press [ENTER] to continue.</p>  
<p>17. <input type="checkbox"/></p>	<p><b>MPS A:</b> Exit out of platcfg.</p>	<p>Select Exit and press [ENTER] to return to the Network Configuration Menu.                  Select Exit and press [ENTER] to return to the Main Menu.                  Select Exit and press [ENTER] to exit out of platcfg.</p>
<p>18. <input type="checkbox"/></p>	<p><b>MPS A:</b> Optional Configuration of Switch 1C.</p>	<p>If the system is installed with 4 switches, proceed with the next step, otherwise skip to step 35.</p>
<p>19. <input type="checkbox"/></p>	<p>Move Serial Cables.</p>	<p>On the front of switches 1A and 1B, unplug the serial cables connected to Console port and plug them in switches 1C and 1D Console port respectively.</p>

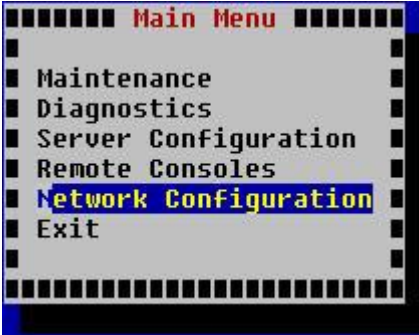
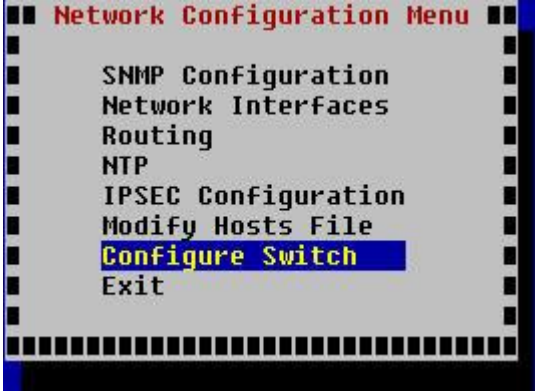
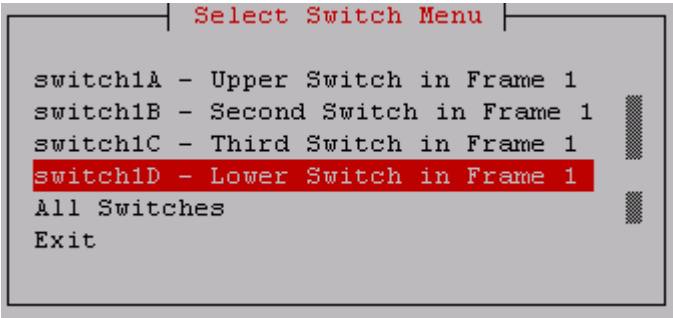
**Procedure 12: Switch Configuration**

<p>20. <input type="checkbox"/></p>	<p><b>MPS A:</b> Start platcfg utility.</p>	<p># su - platcfg</p>
<p>21. <input type="checkbox"/></p>	<p><b>MPS A:</b> Navigate to the Network Configuration Menu.</p>	<p>On the platcfg <b>Main Menu</b>, select <b>Network Configuration</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a menu titled "Main Menu". The menu items are: Maintenance, Diagnostics, Server Configuration, Remote Consoles, Network Configuration (highlighted in blue), and Exit.</p>
<p>22. <input type="checkbox"/></p>	<p><b>MPS A:</b> Navigate to the Configure Switch Menu.</p>	<p>On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a menu titled "Network Configuration Menu". The menu items are: SNMP Configuration, Network Interfaces, Routing, NTP, IPSEC Configuration, Modify Hosts File, Configure Switch (highlighted in blue), and Exit.</p>
<p>23. <input type="checkbox"/></p>	<p><b>MPS A:</b> Select Switch1C.</p>	<p>On the Select Switch Menu, select <b>Switch1C – Third Switch in Frame 1</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window with a menu titled "Select Switch Menu". The menu items are: switch1A - Upper Switch in Frame 1, switch1B - Second Switch in Frame 1, switch1C - Third Switch in Frame 1 (highlighted in red), switch1D - Lower Switch in Frame 1, All Switches, and Exit.</p>
<p>24. <input type="checkbox"/></p>	<p><b>MPS A:</b> Confirm Switch 1C Configuration.</p>	<p>Select <b>Yes</b> and press [ENTER] to configure Switch 1C</p>

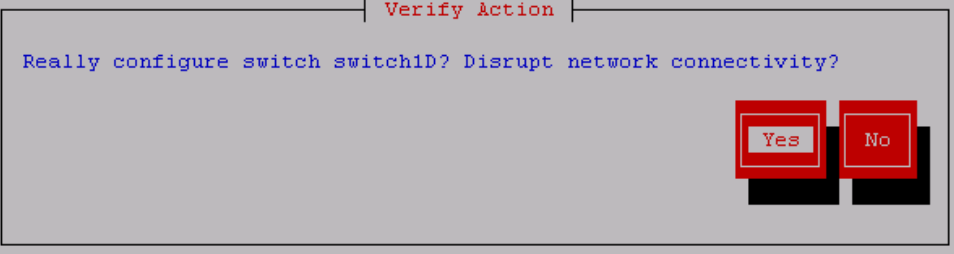
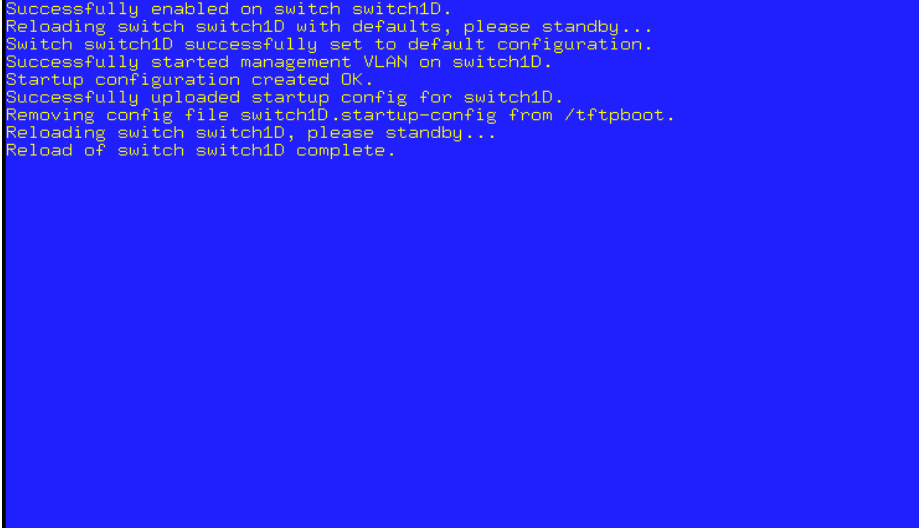

Procedure 12: Switch Configuration

		
<p>25. <input type="checkbox"/></p>	<p><b>MPS A:</b> Navigate to the Configure Switch Menu.</p>	<p>Configuring the switch takes about 10 minutes, once complete press [ENTER] to continue.</p>  
<p>26. <input type="checkbox"/></p>	<p><b>MPS A:</b> Exit out of platcfg.</p>	<p>Select Exit and press [ENTER] to return to the Network Configuration Menu.                  Select Exit and press [ENTER] to return to the Main Menu.                  Select Exit and press [ENTER] to exit out of platcfg.</p>
<p>27. <input type="checkbox"/></p>	<p><b>MPS B:</b> Connect to Server 1B.</p>	<pre>[hostname] consolelogin: root password: password</pre>

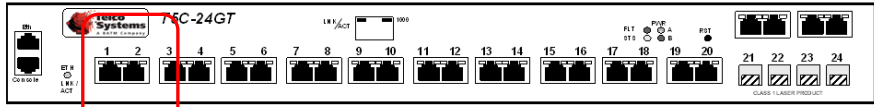
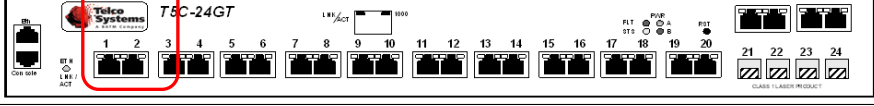
**Procedure 12: Switch Configuration**

<p>28. <input type="checkbox"/></p>	<p><b>MPS B:</b> Start platcfg utility.</p>	<p># su - platcfg</p>
<p>29. <input type="checkbox"/></p>	<p><b>MPS B:</b> Navigate to the Network Configuration Menu.</p>	<p>On the platcfg <b>Main Menu</b>, select <b>Network Configuration</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Main Menu" with a list of options: Maintenance, Diagnostics, Server Configuration, Remote Consoles, Network Configuration (highlighted in blue), and Exit.</p>
<p>30. <input type="checkbox"/></p>	<p><b>MPS B:</b> Navigate to the Configure Switch Menu.</p>	<p>On the Network Configuration menu, select <b>Configure Switch</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Network Configuration Menu" with a list of options: SNMP Configuration, Network Interfaces, Routing, NTP, IPSEC Configuration, Modify Hosts File, Configure Switch (highlighted in blue), and Exit.</p>
<p>31. <input type="checkbox"/></p>	<p><b>MPS B:</b> Select Switch1D.</p>	<p>On the Select Switch Menu, select <b>Switch1D – Lower Switch in Frame 1</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Select Switch Menu" with a list of options: switch1A - Upper Switch in Frame 1, switch1B - Second Switch in Frame 1, switch1C - Third Switch in Frame 1, switch1D - Lower Switch in Frame 1 (highlighted in red), All Switches, and Exit.</p>
<p>32. <input type="checkbox"/></p>	<p><b>MPS B:</b> Confirm Switch 1D Configuration.</p>	<p>Select <b>Yes</b> and press [ENTER] to configure Switch 1D.</p>

**Procedure 12: Switch Configuration**

		 <p>Verify Action</p> <p>Really configure switch switch1D? Disrupt network connectivity?</p> <p>Yes No</p>
<p>33. <input type="checkbox"/> MPS B: Switch Configuration Screen.</p>		<p>Configuring the switch takes about 10 minutes, once complete press [ENTER] to continue.</p>  <pre> Successfully enabled on switch switch1D. Reloading switch switch1D with defaults, please standby... Switch switch1D successfully set to default configuration. Successfully started management VLAN on switch1D. Startup configuration created OK. Successfully uploaded startup config for switch1D. Removing config file switch1D.startup-config from /tftpboot. Reloading switch switch1D, please standby... Reload of switch switch1D complete.                     </pre>  <p>Message</p> <p>Switch Configuration Completed successfully</p> <p>Press any key to continue...</p>
<p>34. <input type="checkbox"/> MPS B: Exit out of platcfg.</p>		<p>Select Exit and press [ENTER] to return to the Network Configuration Menu.                  Select Exit and press [ENTER] to return to the Main Menu.                  Select Exit and press [ENTER] to exit out of platcfg.</p>

**Procedure 12: Switch Configuration**

<p>35.</p> <p><input type="checkbox"/></p>	<p>Connect the cross-over cable from <b>Port 2 of Switch1A</b> to <b>Port 2 of Switch1B.</b></p>	<p><b>A</b></p>  <p><b>B</b></p> 
<p>36.</p> <p><input type="checkbox"/></p>	<p>Procedure complete.</p>	<p>Procedure is complete.</p>

**5.3 Configuring the Application**

**Procedure 13: Configuring the Application**

<p><b>S</b></p> <p><b>T</b></p> <p><b>E</b></p> <p><b>P</b></p> <p><b>#</b></p>	<p>This procedure Configures the application on the server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT THE TEKELEC CUSTOMER CARE CENTER AND ASK FOR ASSISTANCE.</p>	
<p>1.</p> <p><input type="checkbox"/></p>	<p><b>MPS A:</b> Log on Server A.</p>	<pre>[hostname] consolelogin: root password: password</pre>
<p>2.</p> <p><input type="checkbox"/></p>	<p><b>MPS A:</b> Switch user to epapconfig.</p>	<pre># su - epapconfig</pre>
<p>3.</p> <p><input type="checkbox"/></p>	<p><b>MPS A:</b> A note of caution appears. Evaluate the conditions listed. When all the conditions are satisfied, press Return to continue.</p>	<p>Caution: This is the first login of the text user interface. Please review the following checklist before continuing. Failure to enter complete and accurate information at this time will have unpredictable results.</p> <ol style="list-style-type: none"> <li>1. The mate MPS servers (MPS A and MPS B) must be powered on.</li> <li>2. "Initial Platform Manufacture" for the mate MPS servers must be complete.</li> <li>3. The sync network between the mate MPS servers must be operational.</li> <li>4. You must have the correct password for the epapdev user on the mate MPS server.</li> <li>5. You must be prepared to designate this MPS as provisionable or non-provisionable.</li> </ol> <p>Press return to continue...</p>
<p>4.</p> <p><input type="checkbox"/></p>	<p><b>MPS A:</b> Upon pressing Return you can now abort or proceed with the initial configuration. To continue with the configuration, enter Y.</p>	<pre>Are you sure you wish to continue? [N]: Y</pre>
<p>5.</p> <p><input type="checkbox"/></p>	<p><b>MPS A:</b> You are prompted for the epapdev and root user password on the mate MPS server in order to confirm the</p>	<pre>Password for epapdev: &lt;epapdev_password&gt; Could not get authorized keys file from host... Continuing... ssh is working correctly. Password for root: &lt;root_password&gt; Could not get authorized keys file from host...</pre>

**Procedure 13: Configuring the Application**

	<p>secure shell keys are successfully exchanged. The example shows the output generated when the correct password is entered, the secure shell keys are successfully exchanged, and the UI database is set up on <b>MPS A and MPS B</b> at this site.</p> <p>Type <b>Y</b> if this site is <b>Provisionable</b>, otherwise <b>Type N</b>.</p>	<pre>Continuing... ssh is working correctly. Building the initial database on side A. Stopping local slave Stopping remote slave No preexisting EuiDB database was detected. Enabling replication:   deleting old binary logs on local server   resetting local slave.   deleting old binary logs on remote server   resetting remote slave Starting local slave Starting remote slave</pre> <p>The provisioning architecture of the EPAP software allows for exactly 2 customer provisionable sites. Additional sites that are to receive the data provisioned to the provisionable sites should answer 'N' here.</p> <p>If there are only 2 mated sites, it is safe to answer `Y' here.</p> <p>Is this site provisionable? [Y]: Y</p>
<p>6. <input type="checkbox"/></p>	<p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 2, Configure Network Interfaces Menu.</p>	<pre>/-----EPAP Configuration Menu-----\   1   Display Configuration                    2   Configure Network Interfaces Menu        3   Set Time Zone                           4   Exchange Secure Shell Keys              5   Change Password                         6   Platform Menu                           7   Configure NTP Server                     8   PDB Configuration Menu                  9   Security                                 e   Exit                                   \-----\</pre> <p>Enter Choice: 2</p>
<p>7. <input type="checkbox"/></p>	<p><b>MPS A:</b> The Configure Network Interfaces Menu is displayed. Select choice 1, Configure Provisioning Network.</p>	<pre>/-----Configure Network Interfaces Menu-----\   1   Configure Provisioning Network            2   Configure Sync Network                    3   Configure DSM Network                     4   Configure Backup Provisioning Network     5   Configure Forwarded Ports                 6   Configure Static NAT Addresses            7   Configure Provisioning VIP Addresses      e   Exit                                   \-----\</pre>

**Procedure 13: Configuring the Application**

		<pre> \-----/ Enter Choice: 1         </pre>
<p>8. <input type="checkbox"/></p>	<p><b>MPS A:</b> The submenu for configuring communications networks and other information is displayed.</p>	<pre> Verifying connectivity with mate... EPAP A provisioning network IP Address [192.168.61.104]: 192.168.61.48 EPAP B provisioning network IP Address [192.168.61.105]: 192.168.61.49 EPAP provisioning network netmask [255.255.255.0]: EPAP provisioning network default router [192.168.61.250]: 192.168.61.250  Note: The Configure Provisioning Network lets you accept the default IP address values presented by the configuration software (by pressing Return) for EPAP A and EPAP B provisioning network and network netmask, or to enter specific IP values previously received from the customer for the MPS.         </pre>
<p>9. <input type="checkbox"/></p>	<p><b>MPS A:</b> The Configure Network Interfaces menu is displayed. Select choice e, Exit.</p>	<pre> /-----Configure Network Interfaces Menu-----\  1   Configure Provisioning Network --- -----  2   Configure Sync Network --- -----  3   Configure DSM Network --- -----  4   Configure Backup Provisioning Network --- -----  5   Configure Forwarded Ports --- -----  6   Configure Static NAT Addresses --- -----  7   Configure Provisioning VIP Addresses --- -----  e   Exit \-----/  Enter Choice: e         </pre>
<p>10. <input type="checkbox"/></p>	<p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 3, Set Time Zone.</p>	<pre> /-----EPAP Configuration Menu-----\  1   Display Configuration --- -----  2   Configure Network Interfaces Menu --- -----  3   Set Time Zone --- -----  4   Exchange Secure Shell Keys --- -----  5   Change Password --- -----  6   Platform Menu --- -----  7   Configure NTP Server --- -----  8   PDB Configuration Menu --- -----  9   Security --- -----  e   Exit \-----/  Enter Choice: 3         </pre>



**Procedure 13: Configuring the Application**

<p>11. <input type="checkbox"/></p>	<p><b>MPS A:</b> An important Caution statement is displayed. After noting the caution, press Return to continue.</p> <p>You are prompted for confirmation on setting the time zone for the MPS A and MPS B at this site. Enter y to confirm the change. (Pressing Return accepts the default of 'N' (no), cancels the action and you are returned to the EPAP Configuration Menu). Type <b>Y</b> to set the time zone.</p>	<p>Caution: This action requires a reboot of the affected MPS servers to activate the change. Operation of the EPAP software before the MPS servers are rebooted may have unpredictable consequences.</p> <p>Press return to continue...&lt;return&gt;</p> <p>Are you sure you wish to change the timezone for MPS A and B? [N]: Y</p>																																																																																										
<p>12. <input type="checkbox"/></p>	<p><b>MPS A:</b> The following prompt is displayed. If the time zone is known, it can be entered at the prompt. If the exact time zone value is not known, press Return, and a list of the valid names is displayed.</p>	<p>Enter a time zone:</p>																																																																																										
<p>13. <input type="checkbox"/></p>	<p>If an incorrect time zone is entered or if only the Return key is pressed, a list of all available time zone values is displayed.</p> <p>Note: The time zone change does not take effect until the next time the MPS is rebooted.</p>	<p>Valid time zone files are:</p> <table border="0"> <tr> <td>Australia/Broken_Hill</td> <td>Australia/LHI</td> <td></td> </tr> <tr> <td>Australia/NSW</td> <td></td> <td></td> </tr> <tr> <td>Australia/North</td> <td>Australia/Queensland</td> <td></td> </tr> <tr> <td>Australia/South</td> <td></td> <td></td> </tr> <tr> <td>Australia/Tasmania</td> <td>Australia/Victoria</td> <td></td> </tr> <tr> <td>Australia/West</td> <td></td> <td></td> </tr> <tr> <td>Australia/Yancowinna</td> <td>Australia/ACT</td> <td>Brazil/Acre</td> </tr> <tr> <td>Brazil/DeNoronha</td> <td>Brazil/East</td> <td>Brazil/West</td> </tr> <tr> <td>Canada/Atlantic</td> <td>Canada/Central</td> <td>Canada/East-</td> </tr> <tr> <td>Saskatchewan</td> <td></td> <td></td> </tr> <tr> <td>Canada/Eastern</td> <td>Canada/Mountain</td> <td></td> </tr> <tr> <td>Canada/Newfoundland</td> <td></td> <td></td> </tr> <tr> <td>Canada/Pacific</td> <td>Canada/Yukon</td> <td></td> </tr> <tr> <td>Chile/Continental</td> <td></td> <td></td> </tr> <tr> <td>Chile/EasterIsland</td> <td>Etc/GMT</td> <td>Etc/GMT+1</td> </tr> </table> <p>-----Sample Output continues----- -----End of output below-----</p> <table border="0"> <tr> <td>MST</td> <td>MST7MDT</td> <td>NZ</td> </tr> <tr> <td>NZ-CHAT</td> <td>PRC</td> <td>PST8PDT</td> </tr> <tr> <td>Poland</td> <td>Portugal</td> <td>ROC</td> </tr> <tr> <td>ROK</td> <td>Singapore</td> <td>Turkey</td> </tr> <tr> <td>W-SU</td> <td>WET</td> <td>afrika</td> </tr> <tr> <td>asia</td> <td>australasia</td> <td>backward</td> </tr> <tr> <td>etcetera</td> <td>europa</td> <td>factory</td> </tr> <tr> <td>northamerica</td> <td>pacificnew</td> <td>solar87</td> </tr> <tr> <td>solar88</td> <td>solar89</td> <td>southamerica</td> </tr> <tr> <td>GB-Eire</td> <td>GMT</td> <td>GMT+0</td> </tr> <tr> <td>GMT+1</td> <td>GMT+10</td> <td>GMT+11</td> </tr> <tr> <td>GMT+12</td> <td>GMT+13</td> <td>GMT+2</td> </tr> <tr> <td>GMT+3</td> <td>GMT+4</td> <td>GMT+5</td> </tr> <tr> <td>GMT+6</td> <td>GMT+7</td> <td>GMT+8</td> </tr> <tr> <td>GMT+9</td> <td>GMT-0</td> <td>GMT-1</td> </tr> </table>	Australia/Broken_Hill	Australia/LHI		Australia/NSW			Australia/North	Australia/Queensland		Australia/South			Australia/Tasmania	Australia/Victoria		Australia/West			Australia/Yancowinna	Australia/ACT	Brazil/Acre	Brazil/DeNoronha	Brazil/East	Brazil/West	Canada/Atlantic	Canada/Central	Canada/East-	Saskatchewan			Canada/Eastern	Canada/Mountain		Canada/Newfoundland			Canada/Pacific	Canada/Yukon		Chile/Continental			Chile/EasterIsland	Etc/GMT	Etc/GMT+1	MST	MST7MDT	NZ	NZ-CHAT	PRC	PST8PDT	Poland	Portugal	ROC	ROK	Singapore	Turkey	W-SU	WET	afrika	asia	australasia	backward	etcetera	europa	factory	northamerica	pacificnew	solar87	solar88	solar89	southamerica	GB-Eire	GMT	GMT+0	GMT+1	GMT+10	GMT+11	GMT+12	GMT+13	GMT+2	GMT+3	GMT+4	GMT+5	GMT+6	GMT+7	GMT+8	GMT+9	GMT-0	GMT-1
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Procedure 13: Configuring the Application

		<pre> GMT-10          GMT-11          GMT-12 GMT-2           GMT-3           GMT-4 GMT-5           GMT-6           GMT-7 GMT-8           GMT-9           Greenwich Jamaica         Navajo UTC             Universal        UCT                                    Zulu  Enter a time zone file (relative to /usr/share/lib/zoneinfo): US/Eastern         </pre>
<p>14. <input type="checkbox"/></p>	<p><b>NOTE:</b> If an NTP server does not need to be added at this time, you can skip all steps related to option 7 Configure NTP Server Menu, and proceed to the PDB Configuration Menu at step 20.</p> <p><b>SERVER A:</b> Enter choice 7, Configure NTP Server Menu.</p>	<pre> /-----EPAP Configuration Menu-----\ /-----\  1   Display Configuration -----\  2   Configure Network Interfaces Menu -----\  3   Set Time Zone -----\  4   Exchange Secure Shell Keys -----\  5   Change Password -----\  6   Platform Menu -----\  7   Configure NTP Server -----\  8   PDB Configuration Menu -----\  9   Security -----\  e   Exit \-----/  Enter Choice: 7         </pre>
<p>15. <input type="checkbox"/></p>	<p><b>MPS A:</b> The EPAP Configure NTP Server Menu is displayed. Enter choice 2, Add External NTP Server.</p>	<pre> /-----EPAP Configure NTP Server Menu-----\ /-----\  1   Display External NTP Server -----\  2   Add External NTP Server -----\  3   Remove External NTP Server -----\  e   Exit \-----/  Enter Choice: 2         </pre>
<p>16. <input type="checkbox"/></p>	<p><b>MPS A:</b> You are prompted to confirm the action of adding a new NTP Server. (Pressing Return would accept the default of 'N' or 'no', and would cancel the action to add an external NTP server.) Type Y and press return.</p> <p><b>NOTE:</b> All NTP Server IP addresses shown are only examples.</p>	<pre> Are you sure you wish to add new NTP Server? [N]: Y Enter the EPAP NTP Server IP Address: &lt;NTP_server_IP_Addr&gt;  External NTP Server [&lt;NTP_server_IP_Addr&gt;] has been added.  Press return to continue...&lt;return&gt;         </pre>

**Procedure 13: Configuring the Application**

<p>17. <input type="checkbox"/></p>	<p><b>MPS A:</b> The EPAP Configure NTP Server Menu is displayed. Enter choice 1, Display External NTP Server.</p>	<pre> /-----EPAP Configure NTP Server Menu-----\   1   Display External NTP Server     2   Add External NTP Server       3   Remove External NTP Server    e   Exit                         \-----\  Enter Choice: 1         </pre>
<p>18. <input type="checkbox"/></p>	<p><b>MPS A:</b> Verify the External NTP Server IP address is correct and press Return.  <b>NOTE:</b> All NTP Server IP addresses shown are only examples.</p>	<pre> ntpserver1 &lt;IpAddress&gt; Press return to continue...&lt;return&gt;         </pre>
<p>19. <input type="checkbox"/></p>	<p><b>MPS A:</b> The EPAP Configure NTP Server Menu is displayed. Select choice e, Exit.</p>	<pre> /-----EPAP Configure NTP Server Menu-----\   1   Display External NTP Server     2   Add External NTP Server       3   Remove External NTP Server    e   Exit                         \-----\  Enter Choice: e         </pre>
<p>20. <input type="checkbox"/></p>	<p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice 8, PDB Configuration Menu.  <b>Note: Execute the PDB Configuration Menu (except step 26) even if the EPAP is to be configured as Non-Provisionable.</b></p>	<pre> /-----EPAP Configuration Menu-----\   1   Display Configuration          2   Configure Network Interfaces Menu     3   Set Time Zone                 4   Exchange Secure Shell Keys     5   Change Password               6   Platform Menu                 7   Configure NTP Server          8   PDB Configuration Menu        9   Security                       e   Exit                         \-----\  Enter Choice: 8         </pre>
<p>21. <input type="checkbox"/></p>	<p><b>MPS A:</b> The Configure PDB Menu is displayed. Select choice 1.</p>	<pre> /-----Configure PDB Menu-----\ \-----\         </pre>

Procedure 13: Configuring the Application

		<pre> 1   Configure PDB Network ----- 2   RTDB Homing Menu ----- 3   Change MPS Provisionable State ----- 4   Create PDB ----- 5   Change Auto DB Recovery State ----- 6   Change PDBA Proxy State ----- e   Exit \-----/  Enter Choice: 1         </pre>
<p>22. <input type="checkbox"/></p>	<p><b>MPS A:</b> Provide the IP address of the MPS A on Eagle A and the IP address for the MPS A on Eagle B where the remote PDBA database is to reside. Enter the password for MPS A on Eagle B. If configuration of the PDB network is successful, the output confirms the secure shell keys are successfully exchanged, as shown in the output for Provisionable MPSs</p> <p>Note: If the default values shown are correct press return to accept them. Otherwise, enter the values and press Return.</p> <p>In case of Non-Provisionable EPAP provide the IP address of Active and Standby PDBA.</p>	<pre> Verifying connectivity with mate... This MPS is configured to be provisionable. The EPAP local PDBA address is &lt;IP&gt;. EPAP remote PDBA IP Address [0.0.0.0]: &lt;IP Address&gt; EPAP remote PDBA B Address: &lt;IP Address&gt; The authenticity of host '&lt;host&gt;' can't be established. RSA key fingerprint is 66:a8:f9:04:ca:44:3f:01:93... Are you sure you want to continue connecting (yes/no)? yes epapdev@mate's password:  Following is the output on Non-Provisionable EPAP.  Verifying connectivity with mate... This MPS is configured to be non-provisionable. You will be prompted for both of the remote PDBA addresses. Order does not matter.  Enter one of the two PDBA IP addresses [0.0.0.0]: &lt;IP Address&gt; Enter the other of the two PDBA IP addresses [0.0.0.0]: &lt;IP Address&gt;         </pre>
<p>23. <input type="checkbox"/></p>	<p><b>MPS A:</b> Press Return to return to the Configure PDB Menu.</p> <p>Enter choice 2, RTDB Homing Menu.</p>	<pre> /-----Configure PDB Menu-----\ /----- 1   Configure PDB Network ----- 2   RTDB Homing Menu ----- 3   Change MPS Provisionable State ----- 4   Create PDB ----- 5   Change Auto DB Recovery State ----- 6   Change PDBA Proxy State ----- e   Exit \-----/         </pre>

**Procedure 13: Configuring the Application**

		<p>Enter Choice: 2</p>
<p>24. <input type="checkbox"/></p>	<p><b>MPS A:</b> The RTDB Homing Menu is displayed. Enter choice 3, Configure Standby RTDB Homing.</p>	<pre> /-----RTDB Homing Menu-----\   1   Configure Specific RTDB Homing     2   Configure Active RTDB Homing      3   Configure Standby RTDB Homing     e   Exit                            \-----/  Enter Choice: 3  In the event that the Standby PDB is unavailable, should updates be allowed to the RTDBs from the Active MPS? [Y]:Y  The RTDBs will home to the Standby and will allow updates from the Active PDB.  Press return to continue...&lt;return&gt;         </pre>
<p>25. <input type="checkbox"/></p>	<p><b>MPS A:</b> The RTDB Homing Menu is displayed. Enter <b>e</b> to exit.</p>	<pre> /-----RTDB Homing Menu-----\   1   Configure Specific RTDB Homing     2   Configure Active RTDB Homing      3   Configure Standby RTDB Homing     e   Exit                            \-----/  Enter Choice: e         </pre>
<p>26. <input type="checkbox"/></p>	<p><b>MPS A:</b> Enter choice 4, Create PDB.</p> <p><b>NOTE:</b> It may be asked to stop the EPAP software if it is running. Stop it by answering 'Y'.</p>	<p>Note: Perform this step only for the Provisionable EPAP. Skip this step if the EPAP is configured as Non-Provisionable.</p> <pre> /-----Configure PDB Menu-----\   1   Configure PDB Network              2   RTDB Homing Menu                  3   Change MPS Provisionable State     4   Create PDB                        5   Change Auto DB Recovery State      6   Change PDBA Proxy State           e   Exit                            \-----/  Enter Choice: 4  localIp = 192.168.61.48 localName=mps-0566-a remoteIp = 192.168.61.50 remoteName=mps-cyclops-a remoteBIp = 192.168.61.51         </pre>

**Procedure 13: Configuring the Application**

		<pre> mysql is alive ERROR 1049 (42000): Unknown database 'pdb' Local PDB database does not exist. Creating the local database ~~ /etc/init.d/Pdba stop ~~ PDBA application stopped. mysql is alive ERROR 1049 (42000): Unknown database 'pdb' Remote PDB database does exist. ~~ /etc/init.d/Pdba stop ~~ PDBA application stopped. Creating the remote database Waiting for mysqlpdb to stop... done Copying data to remote database not necessary mysql is already running. Exiting. myisamchk: error: File '/var/TKLC/epap/db/pdb' doesn't exist myisamchk: error: File '/var/TKLC/epap/db/pdb' doesn't exist  -----  MyISAM file: /var/TKLC/epap/db/pdb/mysql/columns_priv.MYI is already checked  -----  MyISAM file: /var/TKLC/epap/db/pdb/mysql/db.MYI is already checked  -----  MyISAM file: /var/TKLC/epap/db/pdb/mysql/func.MYI is already checked  -----                 </pre>
<p>27. <input type="checkbox"/></p>	<p><b>NOTE:</b> The example output to the right has been truncated for brevity.</p>	<p><b>TRUNCATED OUTPUT</b></p> <pre> MyISAM file: /var/TKLC/epap/db/pdb/stats/pdbaStats.MYI is already checked Waiting for mysqlpdb to start done Removing local pdba status file. Removing remote pdba status file.                 </pre>
<p>28. <input type="checkbox"/></p>	<p><b>MPS A:</b> The Configure PDB Menu is displayed. Enter choice <b>e</b>. Exit. The Configure PDB Menu is displayed. Enter choice <b>e</b>, Exit.</p>	<pre> /-----Configure PDB Menu-----\ /-----\   1   Configure PDB Network              2   RTDB Homing Menu                    3   Change MPS Provisionable State      4   Create PDB                           5   Change Auto DB Recovery State        6   Change PDBA Proxy State              e   Exit                               \-----/  Enter Choice: e                 </pre>

**Procedure 13: Configuring the Application**

<p>29. <input type="checkbox"/></p>	<p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Enter choice 1, Display Configuration.</p>	<pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration  -----    2   Configure Network Interfaces Menu  -----    3   Set Time Zone  -----    4   Exchange Secure Shell Keys  -----    5   Change Password  -----    6   Platform Menu  -----    7   Configure NTP Server  -----    8   PDB Configuration Menu  -----    9   Security  -----    e   Exit  -----  \-----/  Enter Choice: 1         </pre>
<p>30. <input type="checkbox"/></p>	<p><b>MPS A:</b> The configuration information is displayed. Verify that the configuration data displayed is correct.</p>	<pre> The configuration data shall look like: EPAP A Provisioning Network IP Address = 192.168.61.48 EPAP B Provisioning Network IP Address = 192.168.61.49 Provisioning Network Netmask          = 255.255.255.0 Provisioning Network Default Router    = 192.168.61.250 EPAP A Backup Prov Network IP Address = Not configured EPAP B Backup Prov Network IP Address = Not configured Backup Prov Network Netmask           = Not configured Backup Prov Network Default Router    = Not configured EPAP A Sync Network Address           = 192.168.2.100 EPAP B Sync Network Address           = 192.168.2.200 EPAP A Main DSM Network Address        = 192.168.120.100 EPAP B Main DSM Network Address        = 192.168.120.200 EPAP A Backup DSM Network Address      = 192.168.121.100 EPAP B Backup DSM Network Address      = 192.168.121.200 EPAP A HTTP Port                      = 80 EPAP B HTTP Port                      = 80 EPAP A HTTP SuExec Port               = 8001 EPAP B HTTP SuExec Port               = 8001 EPAP A Banner Connection Port         = 8473 EPAP B Banner Connection Port         = 8473 EPAP A Static NAT Address              = Not configured EPAP B Static NAT Address              = Not configured PDBI Port                             = 5873 Remote MPS A Static NAT Address        = Not configured Remote MPS A HTTP Port                 = 80 Local Provisioning VIP                 = 0.0.0.0 Remote Provisioning VIP                 = 0.0.0.0 Local PDBA Address                     = 192.168.61.48 Remote PDBA Address                     = 192.168.61.50 Remote PDBA B Address                   = 192.168.61.51 Time Zone                              = America/New_York PDB Database                           = Exists Preferred PDB                          = 192.168.61.48 Allow updates from alternate PDB       = Yes Auto DB Recovery Enabled                = No PDBA Proxy Enabled                      = No Press return to continue ...&lt;return&gt;         </pre>
<p>31. <input type="checkbox"/></p>	<p><b>MPS A:</b> The EPAP Configuration Menu is displayed. Select choice</p>	<pre> /-----EPAP Configuration Menu-----\ /-----\         </pre>

**Procedure 13: Configuring the Application**

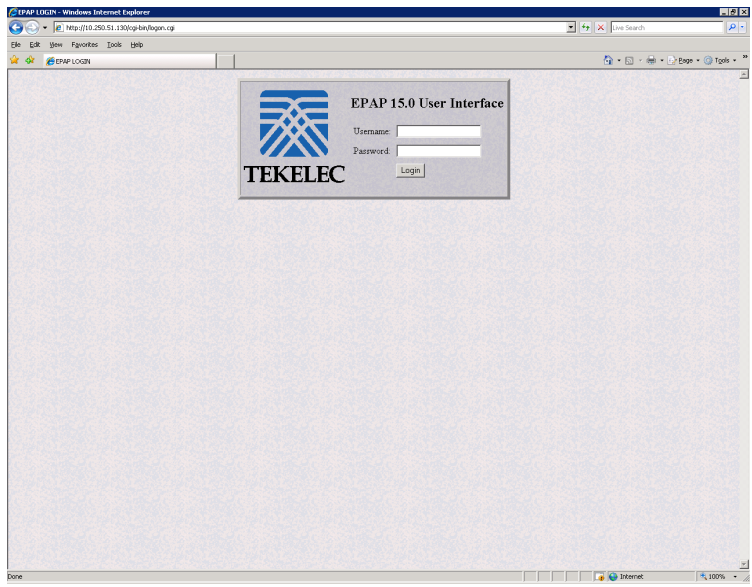
	<p>6, Platform Menu.</p>	<pre> 1   Display Configuration ----- 2   Configure Network Interfaces Menu ----- 3   Set Time Zone ----- 4   Exchange Secure Shell Keys ----- 5   Change Password ----- 6   Platform Menu ----- 7   Configure NTP Server ----- 8   PDB Configuration Menu ----- 9   Security ----- e   Exit ----- \-----/  Enter Choice: 6         </pre>
<p>32. <input type="checkbox"/></p>	<p><b>MPS A:</b> The Platform Menu is displayed. Enter Choice 2, Reboot MPS.</p>	<pre> /-----EPAP Platform Menu-----\ 1   Initiate Upgrade ----- 2   Reboot MPS ----- 3   MySQL Backup ----- 4   RTDB Backup ----- 5   Eject CD ----- 6   Halt MPS ----- 7   PDB Backup ----- e   Exit ----- \-----/  Enter Choice: 2         </pre>
<p>33. <input type="checkbox"/></p>	<p><b>MPS A:</b> You are prompted whether MPS A, MPS B or BOTH sides are to be rebooted. Select the default value of <b>BOTH</b> by pressing Return.</p>	<p>Reboot MPS A, MPS B or [BOTH]: <b>&lt;return&gt;</b></p>
<p>34. <input type="checkbox"/></p>	<p><b>MPS A:</b> The console logon appears at the system prompt signifying the EPAP initial configuration is completed.</p>	<p><b>&lt;hostname&gt; login:</b></p> <p>Note: The console logon will be preceded by many lines of reboot output.</p>
<p>35. <input type="checkbox"/></p>	<p>Reconnect console cables.</p>	<p>On T1200 server, reconnect the console cable between the 'dongle' labeled 'S0' on the T1200 B server and the 'dongle' labeled 'S1' on the T1200 A server and the console</p>



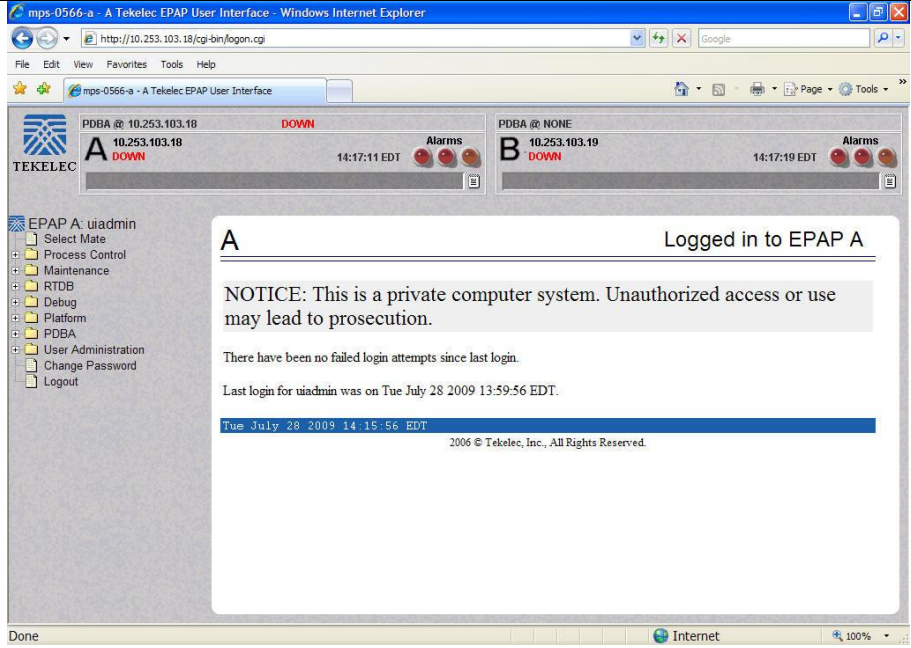
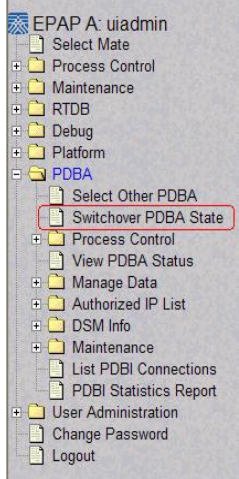
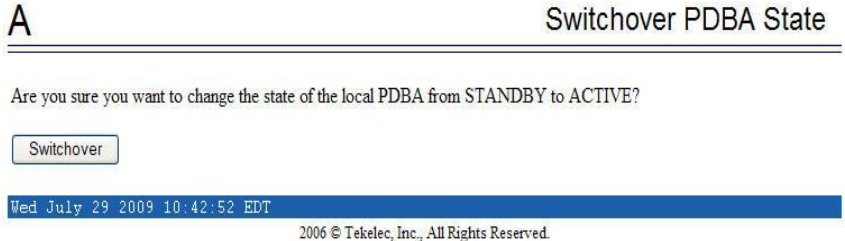
**Procedure 13: Configuring the Application**

		<p>cable between the ‘dongle’ labeled ‘S0’ on the T1200 A server and the ‘dongle’ labeled ‘S1’ on the T1200 B server. <b>Cable part numbers - 830-1229-xx</b></p> <p>On E5-APP-B card, reconnect the console cable between the serial port labeled 'S0' on E5-APP-B B card's adapter and the serial port labeled ‘S1’ on the E5-APP-B A card’s adapter and the console cable between the serial port labeled 'S0' on E5-APP-B A card's adapter and the serial port labeled ‘S1’ on the E5-APP-B B card’s adapter. <b>Cable part numbers - 830-1220-xx</b></p>
<p>36. <input type="checkbox"/></p>	<p>Procedure complete.</p>	<p>Procedure is complete.</p>

**Procedure 14: PDB Configuration (Active Provisionable Site as designated by customer)**

<p><b>S T E P #</b></p>	<p>This procedure configuring the PDB databases on Active Site</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT THE TEKELEC CUSTOMER CARE CENTER AND ASK FOR ASSISTANCE.</p>	
<p>1. <input type="checkbox"/></p>	<p>Access the EPAP GUI by opening a web browser (Preferably IE) and providing the IP address of Server A.</p> <p>The EPAP LOGIN screen should appear.</p>	<p>The GUI screen should look like:</p> 
<p>2. <input type="checkbox"/></p>	<p>Login as uiadmin.</p>	




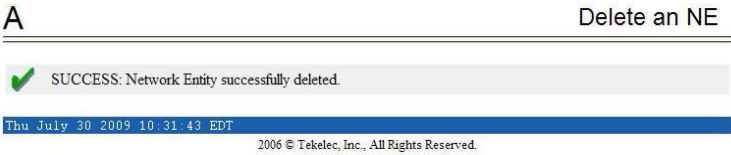
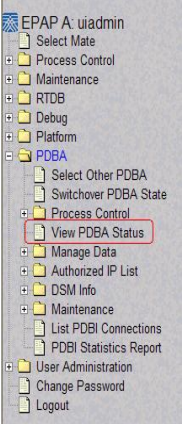
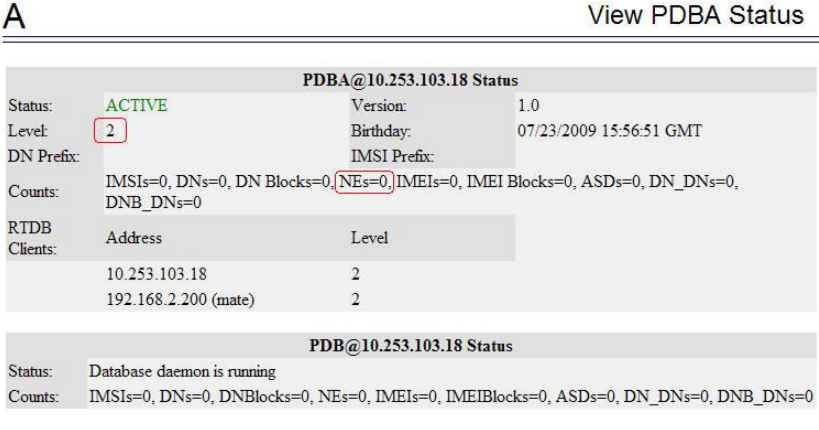
Procedure 14: PDB Configuration (Active Provisionable Site as designated by customer)

		
<p>3. <input type="checkbox"/></p>	<p>On the Site designated by the customer Active PDB GUI select “Switchover PDBA State” to make the PDBA Active.</p> 	<p>The screen should look like:</p> 
<p>4. <input type="checkbox"/></p>	<p>Click on the “Switchover” button.</p>	<p>The screen should look like:</p>

**Procedure 14: PDB Configuration (Active Provisionable Site as designated by customer)**

<p>5. <input type="checkbox"/></p>	<p>PDBA should become ACTIVE.</p>	<p>The screen should look like:</p>
<p>6. <input type="checkbox"/></p>	<p>On the ACTIVE PDBA site, select PDBA → Manage Data → Network Entity → Add</p>	<p>The screen should look like:</p>
<p>7. <input type="checkbox"/></p>	<p>Enter ID as "12345", select Type "RN" and select Point Code as "None".</p>	<p>The screen should look like:</p>

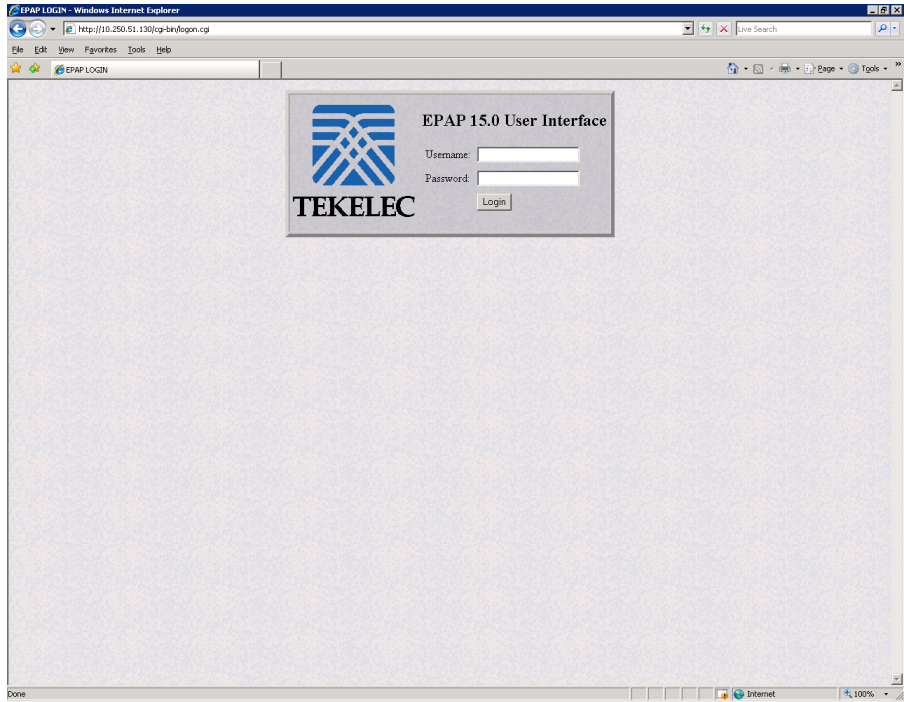
**Procedure 14: PDB Configuration (Active Provisionable Site as designated by customer)**

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

**Procedure 14: PDB Configuration (Active Provisionable Site as designated by customer)**

13. <input type="checkbox"/>	Procedure complete	Procedure is complete.
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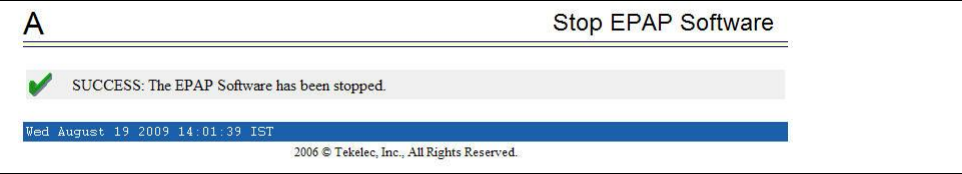
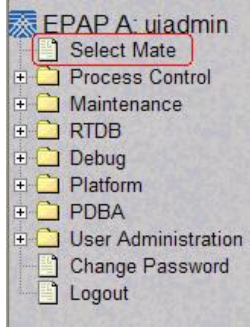
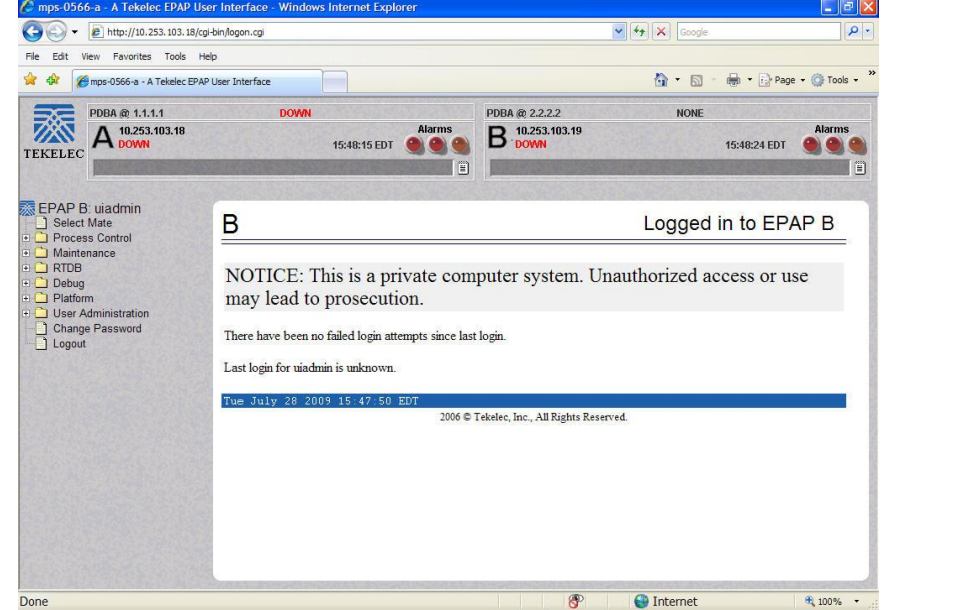
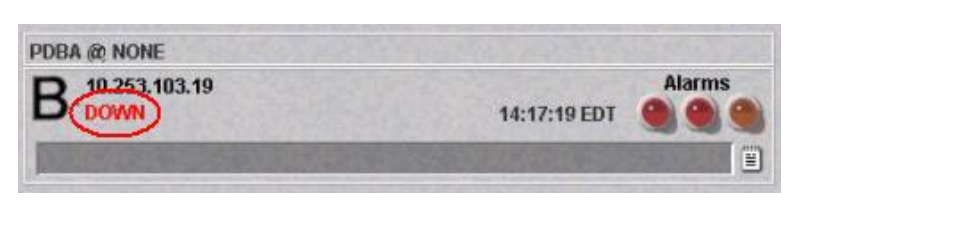
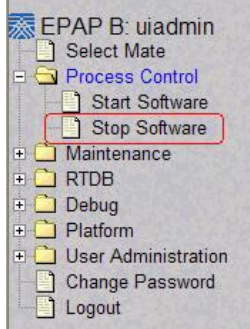
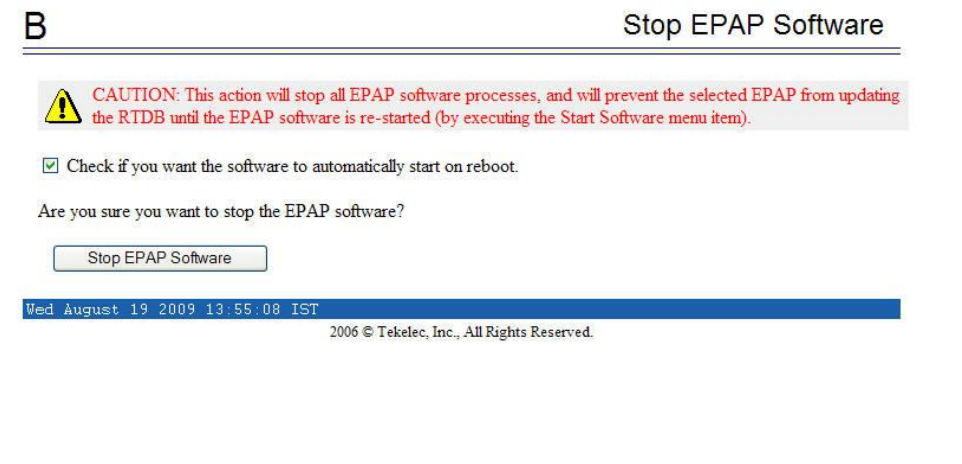
**Procedure 15: RTDB Configuration**

S T E P #	<p>This procedure configuring the RTDB databases (all sites).</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT THE TEKELEC CUSTOMER CARE CENTER AND ASK FOR ASSISTANCE.</p>	
1. <input type="checkbox"/>	<p>Access the EPAP GUI by opening a web browser (Preferably IE) and providing the IP address of Server A.</p> <p>The EPAP LOGIN screen should appear.</p>	<p>The GUI screen should look like:</p> 
2. <input type="checkbox"/>	<p>Login as uiadmin.</p>	


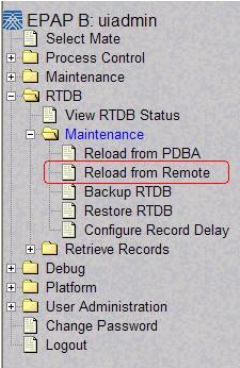

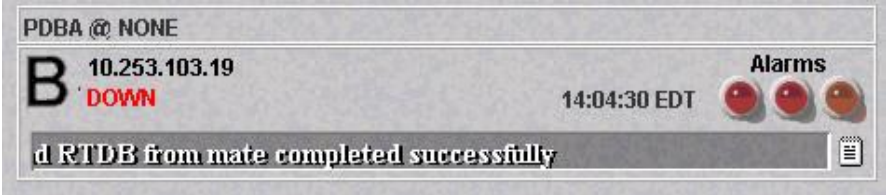
Procedure 15: RTDB Configuration

<p>3. <input type="checkbox"/></p>	<p>The banner section should indicate that the EPAP is DOWN on server A. If EPAP is down on server A then proceed to step 6 below.</p>	
<p>4. <input type="checkbox"/></p>	<p>From the Process Control menu, select the option "Stop Software".</p>	

Procedure 15: RTDB Configuration

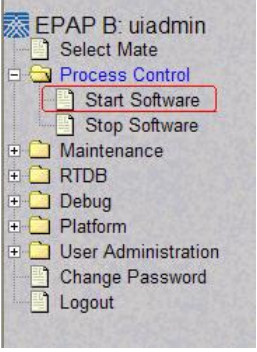
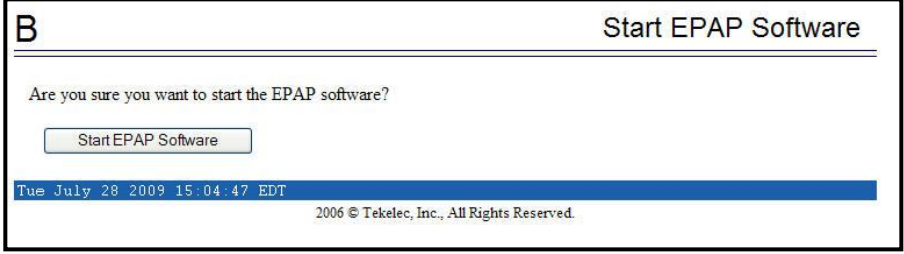

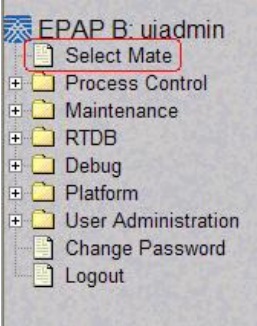
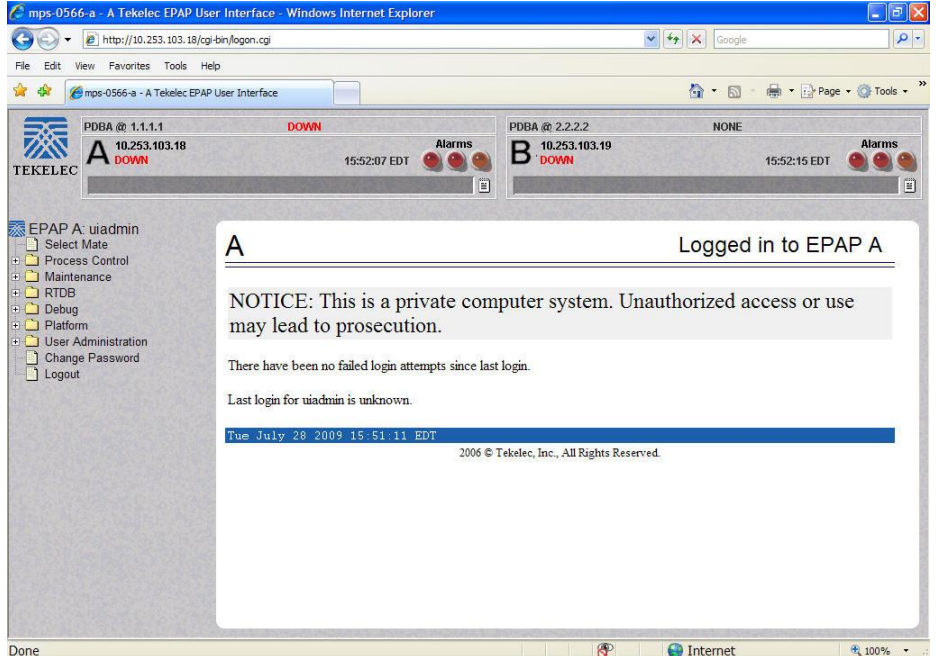
<p>5. <input type="checkbox"/></p>	<p>Click on the “Stop EPAP Software” button. EPAP software should stop successfully.</p>	
<p>6. <input type="checkbox"/></p>	<p>Select the option “Select Mate” from the GUI menu and login to EPAP-B.</p>  <p><b>Note:</b> You will have to login to EPAP-B once you click the first selection from the menu.</p>	
<p>7. <input type="checkbox"/></p>	<p>The banner section should indicate that the EPAP is DOWN on server B. If EPAP is down on server B then proceed to step 10 below.</p>	
<p>8. <input type="checkbox"/></p>	<p>From the Process Control menu, select the option “Stop Software”.</p> 	

Procedure 15: RTDB Configuration

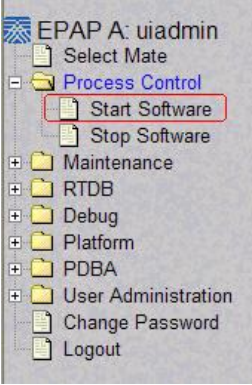

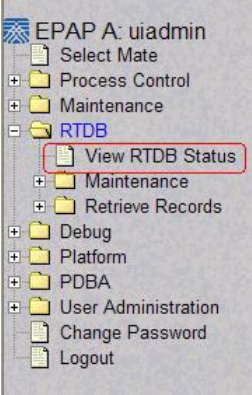
<p>9. <input type="checkbox"/></p>	<p>Click on the “Stop EPAP Software” button. EPAP software should stop successfully.</p>	<p style="text-align: right;"><b>B</b> Stop EPAP Software</p> <hr/> <p> SUCCESS: The EPAP Software has been stopped.</p> <p>Wed August 19 2009 13:55:57 IST</p> <p style="text-align: right;">2006 © Tekelec, Inc., All Rights Reserved.</p>
<p>10. <input type="checkbox"/></p>	<p>The banner section should indicate that the EPAP is DOWN on both servers.</p> <p>Select RTDB→Maintenance→ Reload from Remote</p> 	<p style="text-align: right;"><b>B</b> Reload RTDB from Remote</p> <hr/> <p><b>This action will copy the RTDB from the specified source machine to the local machine. The EPAP software must be stopped on both the source and destination machine in order for the copy to be allowed.</b></p> <p>Source EPAP: <input checked="" type="radio"/> Mate <input type="radio"/> Remote IP <input type="text"/></p> <p>Begin RTDB Reload from Remote</p> <p>Tue July 28 2009 14:00:31 EDT</p> <p style="text-align: right;">2006 © Tekelec, Inc., All Rights Reserved.</p>
<p>11. <input type="checkbox"/></p>	<p>For the EPAP source, select Mate.</p> <p>Click on the “Begin RTDB Reload from Remote” button.</p>	<p style="text-align: right;"><b>B</b> Reload RTDB from Remote</p> <hr/> <p><b>Are you sure that you want to reload the RTDB from the mate?</b></p> <p>Confirm RTDB Reload from Remote</p> <p>Tue July 28 2009 14:03:13 EDT</p> <p style="text-align: right;">2006 © Tekelec, Inc., All Rights Reserved.</p>
<p>12. <input type="checkbox"/></p>	<p>Click on the “Confirm RTDB Reload from Remote” button.</p>	<p style="text-align: right;"><b>B</b> Reload RTDB from Remote</p> <hr/> <p> SUCCESS: Successfully started reload of RTDB from mate. Reload status will be displayed on Banner message window.</p> <p>Tue July 28 2009 14:04:05 EDT</p> <p style="text-align: right;">2006 © Tekelec, Inc., All Rights Reserved.</p>
<p>13. <input type="checkbox"/></p>	<p>Reload status will be displayed on the Banner message window.</p> <p>RTDB Reload is successful when the</p>	



Procedure 15: RTDB Configuration

	<p>Banner message window displays “Reload RTDB from mate completed successfully”.</p>
<p>14. <input type="checkbox"/> Start EPAP software on EPAP B</p> 	
<p>15. <input type="checkbox"/> Click on the “Start EPAP Software” button. EPAP software should start successfully.</p>	
<p>16. <input type="checkbox"/> Select the option “Select Mate” from the GUI menu and switch back to EPAP-A</p> 	

Procedure 15: RTDB Configuration

<p>17. <input type="checkbox"/></p>	<p>Start EPAP software on EPAP A.</p> 	<p style="text-align: right;">Start EPAP Software</p> <hr/> <p>PDBA <input type="checkbox"/> Check if you want to start the PDBA software along with the EPAP software.</p> <p>Are you sure you want to start the EPAP software?</p> <p style="text-align: center;"><input type="button" value="Start EPAP Software"/></p>
<p>18. <input type="checkbox"/></p>	<p>Select the option “Check if you want to start the PDBA software along with the EPAP software.” and click on the “Start EPAP Software” button. EPAP software and PDBA should start successfully.</p>	<p style="text-align: right;">Start EPAP Software</p> <hr/> <p> SUCCESS: The EPAP Software has been started.</p> <p>Tue July 28 2009 15:06:59 EDT</p> <p style="text-align: right;">2006 © Tekelec, Inc., All Rights Reserved.</p>
<p>19. <input type="checkbox"/></p>	<p>From the RTDB menu, select the option to View RTDB Status.</p>  <p>Make sure that the RTDB Birthday for Local and Mate RTDB are same.</p>	<p style="text-align: right;">View RTDB Status</p> <hr/> <p style="text-align: center;">Local RTDB Status</p> <p>DB Status: <span style="color: green;">Coherent</span>      Audit Enabled: <span style="color: green;">Yes</span>  RTDB Level: 2                      RTDB Birthday: 10/25/2012 00:31:38 GMT  PDB Level: 2                        PDB Birthday: 10/25/2012 00:30:34 GMT  Counts:    IMSIs=0, DNs=0, DN Blocks=0, NEs=0, ASDs=0  Tables:    IMSI=0, DN=0, IMEI=0, ASD=0  DB Size:   3 M                        MinDsmSz: 0 MB (0)  Reload:    None</p> <p style="text-align: center;">Mate RTDB Status</p> <p>DB Status: <span style="color: green;">Coherent</span>      Audit Enabled: <span style="color: green;">Yes</span>  RTDB Level: 2                      RTDB Birthday: 10/25/2012 00:31:38 GMT  PDB Level: 2                        PDB Birthday: 10/25/2012 00:30:34 GMT  Counts:    IMSIs=0, DNs=0, DN Blocks=0, NEs=0, ASDs=0  Tables:    IMSI=0, DN=0, IMEI=0, ASD=0  DB Size:   3 M                        MinDsmSz: 0 MB (0 on p)  Reload:    None</p>
<p>20. <input type="checkbox"/></p>	<p>Procedure is complete.</p>	<p>Install Procedure is complete.</p>

**THIS COMPLETES THE INSTALLATION**

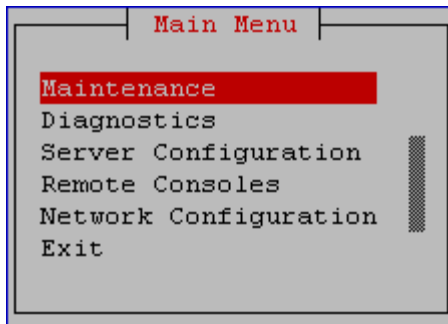
## 6. SOFTWARE UPGRADE PROCEDURE

### 6.1 Upgrade MPS B

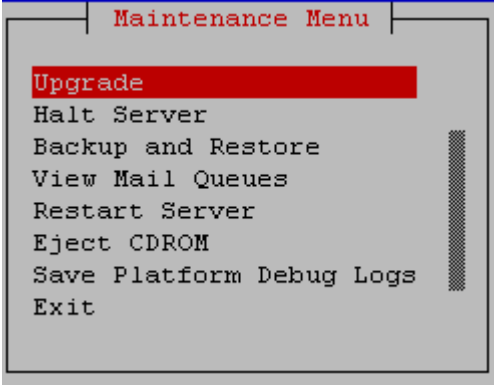
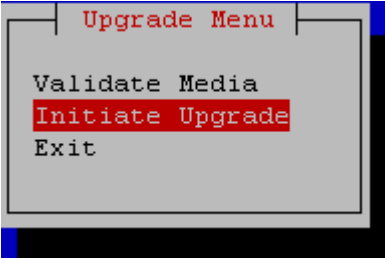
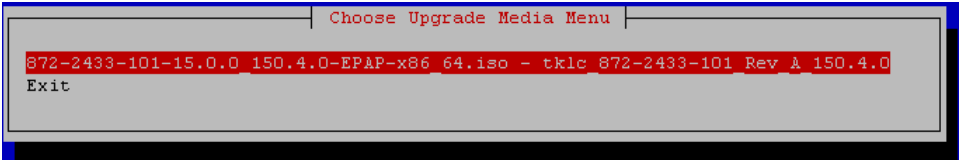
#### Procedure 16: Upgrade MPS B

<b>S T E P #</b>	<p>This procedure upgrades MPS B server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</b></p>	
1. <input type="checkbox"/>	<p><b>Notify potential users not to start the PDBA software during the duration of the upgrade.</b></p> <p><b>It is required that the Provisionable EPAP mated pair be upgraded first, before any Non-Provisionable EPAP systems.</b> Refer to section 2.3 for more details on upgrading non-provisional EPAP systems.</p>	
2. <input type="checkbox"/>	<p><b>Have the customer notify all web browser users who are using the EPAP Web GUI to logoff and exit their web browser for the duration of the upgrade.</b></p> <p><b>Only after successful upgrade of BOTH the MPS-A and MPS-B servers, the customer web browser users may then restart their web browser and access the EPAP Web GUI.</b></p>	
3. <input type="checkbox"/>	<p><b>MPS B:</b> Determine media available for upgrade.</p>	<p>Perform procedure in Appendix B.1 or B.2 or use an EPAP ISO image to perform upgrade.</p>
4. <input type="checkbox"/>	<p>Establish a connection to MPS B.</p>	<p>If access to the MPS servers is not available through an IP network, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>For connecting the T1200 B server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the ‘dongle’ labeled ‘S1’ on the T1200 A server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B A card’s adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p> <p>Skip to step 8, if connected through serial console.</p>
5. <input type="checkbox"/>	<p>Create a terminal window and establish a connection by logging into MPS A.</p> <p>Log in to MPS A.</p>	<p>In a newly created terminal window labeled “MPS B – from MPS A”, connect directly into MPS A.</p> <p><b># ssh root@&lt;MPS A&gt;</b> <b>Password: &lt;password&gt;</b></p>
6. <input type="checkbox"/>	<p><b>MPS A:</b> Start screen session.</p> <p><b>MPS A:</b> Connect to the console of MPS B.</p>	<p>Execute the following commands to start screen and establish a console session to MPS B.</p> <p><b># screen</b></p> <p>Execute the following command on T1200:</p>

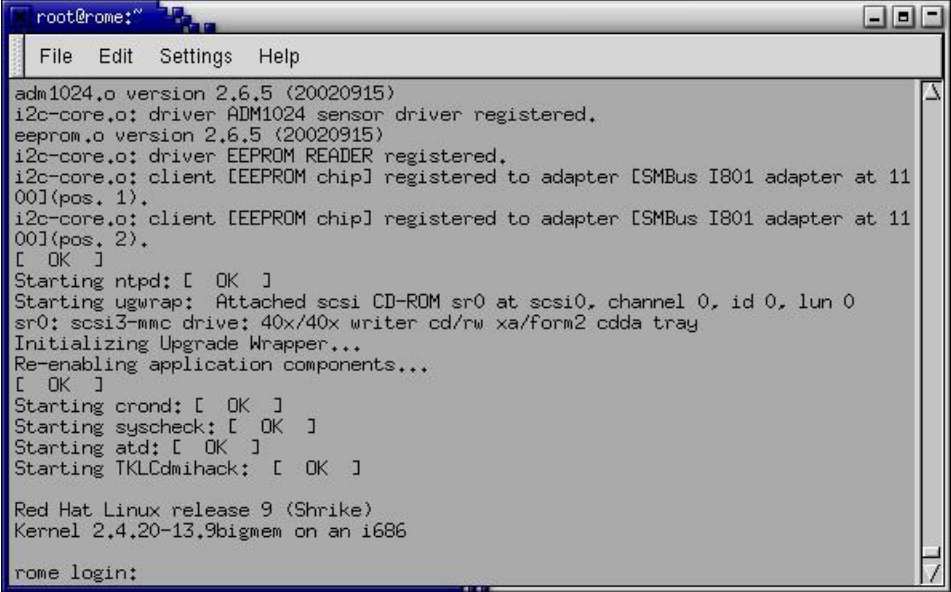
## Procedure 16: Upgrade MPS B

		<pre># minicom epap_b OR # cu -l /dev/ttyS4 -s 115200</pre> <p>Execute the following command on E5-APP-B:</p> <pre># minicom mate OR # cu -l /dev/ttyS1 -s 115200</pre>
7. <input type="checkbox"/>	MPS B: Login prompt is displayed.	<pre>&lt;hostname&gt; console login:</pre> <p>Note: Hit enter if no login prompt is displayed.</p>
8. <input type="checkbox"/>	MPS B: Log in to the server as the user "root".	<pre>&lt;hostname&gt; console login: root password: &lt;password&gt;</pre>
9. <input type="checkbox"/>	MPS B: Disable syscheck fs module.	<p>Execute the following command to disable the syscheck fs module.</p> <pre># syscheckAdm --disable disk fs</pre>
10. <input type="checkbox"/>	MPS B: Determine if it is a Major or an Incremental Upgrade.	<p>Check Procedure 2, Step 8. If the upgrade type is Incremental, proceed with the following step, otherwise if it's Major upgrade, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p>
11. <input type="checkbox"/>	MPS B: Execute the platcfg menu.	<pre># su - platcfg</pre>
12. <input type="checkbox"/>	MPS B: Select the Maintenance submenu.	<p>The platcfg <b>Main Menu</b> appears. On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Main Menu" with a list of options: Maintenance (highlighted in red), Diagnostics, Server Configuration, Remote Consoles, Network Configuration, and Exit. A vertical scrollbar is visible on the right side of the list.</p>
13. <input type="checkbox"/>	MPS B: Select the Upgrade submenu.	<p>Select the <b>Upgrade</b> menu and press [ENTER].</p>

Procedure 16: Upgrade MPS B

		
<p>14. <input type="checkbox"/></p>	<p><b>MPS B:</b> Select Initiate Upgrade.</p>	<p>Select the <b>Initiate Upgrade</b> menu and press [ENTER].</p> 
<p>15. <input type="checkbox"/></p>	<p><b>MPS B:</b> Select the Upgrade Media.</p>	<p>The screen will display a message that it is searching for upgrade media. Once the upgrade media is found, an Upgrade Media selection menu will be displayed similar to the example shown below.</p> <p>Select the upgrade media on ISO image. There should only be one selection available, as shown in the example below. If there is more than one selection available, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p> 
<p>16. <input type="checkbox"/></p>	<p><b>MPS B:</b> Upgrade proceeds.</p>	<p>The screen displays the following, indicating that the upgrade software is first validating the media, and then proceeding with the upgrade.</p> <pre> Initializing Upgrade Wrapper ... Validating packages ...                     </pre>
<p>17. <input type="checkbox"/></p>	<p><b>MPS B:</b> Upgrade proceeds.</p>	<p>Many informational messages will come across the terminal screen as the upgrade proceeds.</p> <p>Finally, after upgrade is complete, the server will reboot.</p>
<p>18. <input type="checkbox"/></p>	<p><b>MPS B:</b> Upgrade completed.</p>	<p>After the final reboot, the screen will display the login prompt, as shown in the example below.</p>

Procedure 16: Upgrade MPS B

		
<p>19. <input type="checkbox"/></p>	<p><b>MPS B:</b> Log in to the server as the user “root”.</p>	<p><b>&lt;hostname&gt; console login: root</b>  <b>password: &lt;password&gt;</b></p>
<p>20. <input type="checkbox"/></p>	<p><b>MPS B:</b> Verify the Upgrade.</p>	<p>Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.</p> <p><b># grep -i error /var/TKLC/log/upgrade/upgrade.log</b></p> <p>Examine the output of the above command to determine if any errors were reported.</p> <p>Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F, if the output contains any errors beside the following:</p> <pre>1340737587::Error: No supported management controller found 1340738300::perl-Class-ErrorHandler ##### 1340738322::Checking perl-Class-ErrorHandler-0.01-15.0.0_150.3.0.noarch.rpm: PASSED</pre> <p>All those messages are expected, and therefore aren't considered errors. Also note that sometime a carriage return is inserted in the log file causing some of the error messages to appear truncated. This is acceptable and should be ignored.</p> <p><b># grep -i warning /var/TKLC/log/upgrade/upgrade.log</b></p> <p>Examine the output of the above command to determine if any warnings were reported. Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix, if the output contains any warnings beside the following:</p> <pre>1342412966::useradd: warning: the home directory already exists. 1342413940::WARNING: A new file was added to xml alarm files...reparsing xml... 1342413943::WARNING: FILE: /usr/TKLC/plat/etc/alarms/alarms_mps.xml 1342413959::TKLCepap-HA #####warning: group root} does not exist - using</pre>

## Procedure 16: Upgrade MPS B

		<pre>root 1342413978::WARNING: Stale PID file /var/TKLC/run/RunAndLog/11027.pid detected!</pre> <p>Refer to section 3.6 to know more about logging.</p>
21. <input type="checkbox"/>	MPS B: Verify the Upgrade.	<pre># grep "UPGRADE IS COMPLETE" /var/TKLC/log/upgrade/upgrade.log</pre> <p>Verify that the message “UPGRADE IS COMPLETE” is displayed. If it is not, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p> <pre>1252687571:: UPGRADE IS COMPLETE</pre>
22. <input type="checkbox"/>	MPS B: Enable syscheck fs module.	<p><b>Execute the following command to enable the syscheck fs module.</b></p> <pre># syscheckAdm --enable disk fs</pre>
23. <input type="checkbox"/>	MPS B: Upgrade is complete. Verify Health of MPS B.	<p>Execute Appendix A.1 on MPS B to verify the health of MPS B.</p> <p>Verify that no unexpected alarms are noted.</p>
24. <input type="checkbox"/>	Reconnect console cable.	<p>On T1200 server, reconnect the console cable between the ‘dongle’ labeled ‘S0’ on the T1200 B server and the ‘dongle’ labeled ‘S1’ on the T1200 A server. <b>Cable part numbers - 830-1229-xx</b></p> <p>On E5-APP-B card, reconnect the console cable between the serial port labeled ‘S0’ on E5-APP-B B card's adapter and the serial port labeled ‘S1’ on the E5-APP-B A card's adapter. <b>Cable part numbers - 830-1220-xx</b></p>
25. <input type="checkbox"/>	Procedure complete.	Procedure is complete.

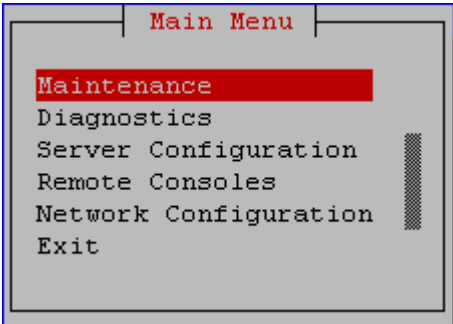
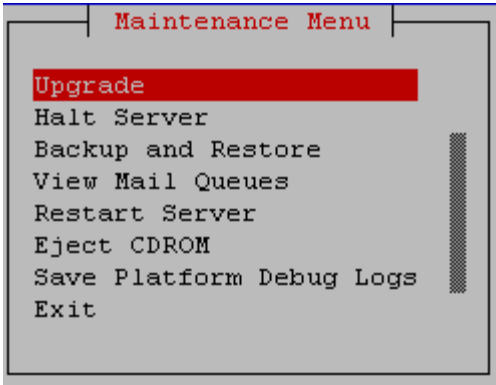
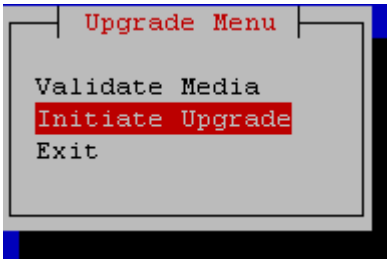


## 6.2 Upgrade MPS A

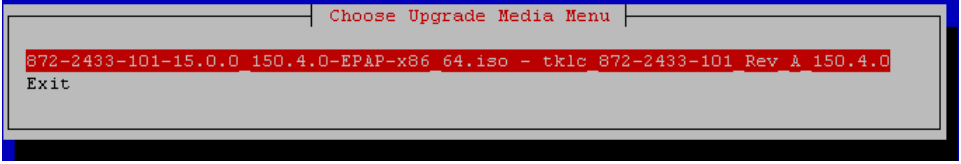
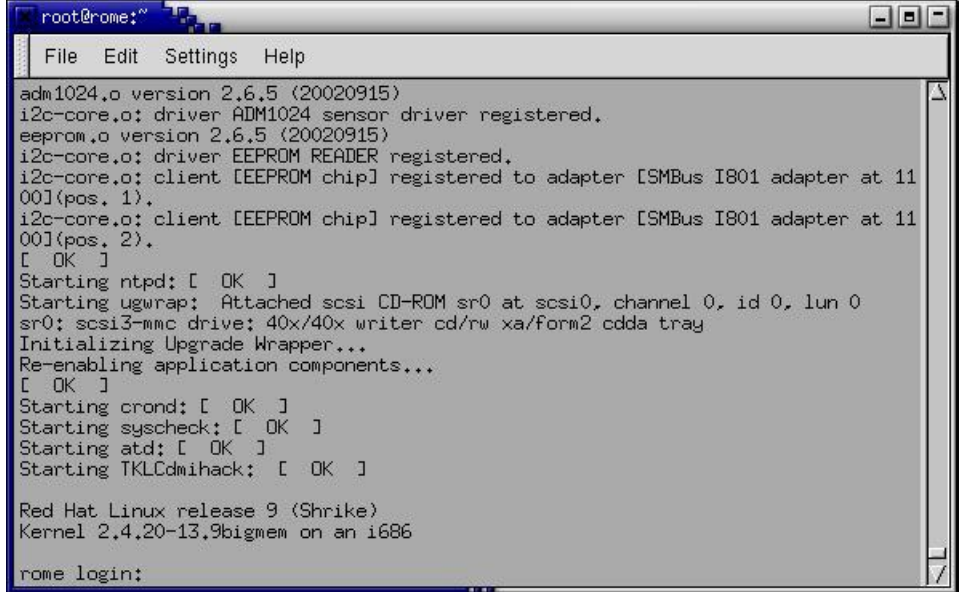
### Procedure 17: Upgrade MPS A

<b>S T E P #</b>	<p>This procedure upgrades the MPS-A server in the EPAP System.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</b></p>	
1. <input type="checkbox"/>	<p><b>MPS A:</b> Determine media available for upgrade.</p>	<p>Perform procedure in Appendix B.1 or B.2 or use an EPAP ISO image to perform upgrade.</p>
2. <input type="checkbox"/>	<p>Establish a connection to MPS A.</p>	<p>If access to the MPS servers is not available through an IP network, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>On the back of the T1200 A server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the ‘dongle’ labeled ‘S1’ on the T1200 B server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B B card’s adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p> <p>Skip to step 6, if connected through serial console.</p>
3. <input type="checkbox"/>	<p>Create a terminal window and establish a connection by logging into MPS B.</p> <p>Log in to MPS B.</p>	<p>In a newly created terminal window labeled “MPS B”, connect directly into MPS B.</p> <pre># ssh root@&lt;MPS B&gt; Password: &lt;password&gt;</pre>
4. <input type="checkbox"/>	<p><b>MPS B:</b> Start screen session.</p> <p><b>MPS B:</b> Connect to the console of MPS A.</p>	<p>Execute the following commands to start screen and establish a console session to MPS A.</p> <pre># screen</pre> <p>Execute the following command on T1200:</p> <pre># minicom epap_a OR # cu -l /dev/ttys4 -s 115200</pre> <p>Execute the following command on E5-APP-B:</p> <pre># minicom mate OR # cu -l /dev/ttys1 -s 115200</pre>
5. <input type="checkbox"/>	<p><b>MPS A:</b> Login prompt is displayed.</p>	<pre>&lt;hostname&gt; console login:</pre> <p>Note: Hit enter if no login prompt is displayed.</p>
6. <input type="checkbox"/>	<p><b>MPS A:</b> Log in to the server as the user “root”.</p>	<pre>&lt;hostname&gt; console login: root</pre>

Procedure 17: Upgrade MPS A

		password: <password>
7. <input type="checkbox"/>	MPS A: Disable syscheck fs module.	Execute the following command to disable the syscheck fs module.  # syscheckAdm --disable disk fs
8. <input type="checkbox"/>	MPS A: Execute the platcfg menu.	# su - platcfg
9. <input type="checkbox"/>	MPS A: Select the Maintenance submenu.	The platcfg <b>Main Menu</b> appears. On the <b>Main Menu</b> , select <b>Maintenance</b> and press [ENTER].  
10. <input type="checkbox"/>	MPS A: Select the Upgrade submenu.	Select the <b>Upgrade</b> menu and press [ENTER].  
11. <input type="checkbox"/>	MPS A: Select Initiate Upgrade.	Select the <b>Initiate Upgrade</b> menu and press [ENTER].  
12. <input type="checkbox"/>	MPS A: Select the Upgrade Media.	The screen will display a message that it is searching for upgrade media. Once the upgrade media is found, an Upgrade Media selection menu will be displayed similar to the example shown below.

Procedure 17: Upgrade MPS A

		<p>Select the upgrade media on ISO image. There should only be one selection available, as shown in the example below. If there is more than one selection available, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p> 
<p>13. <input type="checkbox"/></p>	<p><b>MPS A:</b> Upgrade proceeds.</p>	<p>The screen displays the following, indicating that the upgrade software is first validating the media, and then proceeding with the upgrade.</p> <pre>Initializing Upgrade Wrapper ... Validating packages ...</pre>
<p>14. <input type="checkbox"/></p>	<p><b>MPS A:</b> Upgrade proceeds.</p>	<p>Many informational messages will come across the terminal screen as the upgrade proceeds.</p> <p>Finally, after upgrade is complete, the server will reboot.</p>
<p>15. <input type="checkbox"/></p>	<p><b>MPS A:</b> Upgrade completed.</p>	<p>After the final reboot, the screen will display the login prompt, as shown in the example below.</p> 
<p>16. <input type="checkbox"/></p>	<p><b>MPS A:</b> Log in to the server as the user "root".</p>	<pre>&lt;hostname&gt; console login: root password: &lt;password&gt;</pre>
<p>17. <input type="checkbox"/></p>	<p><b>MPS A:</b> Verify the Upgrade.</p>	<p>Examine the upgrade logs in the directory /var/TKLC/log/upgrade and verify that no errors and warnings were reported.</p> <pre># grep -i error /var/TKLC/log/upgrade/upgrade.log</pre> <p>Examine the output of the above command to determine if any errors were reported. Contact the Technical Assistance Center following the instructions on the front page or</p>

Procedure 17: Upgrade MPS A

		<p>the instructions on the Appendix F, if the output contains any errors beside the following:</p> <pre>1340737587::Error: No supported management controller found 1340738300::perl-Class-ErrorHandler ##### 1340738322::Checking perl-Class-ErrorHandler-0.01-15.0.0_150.3.0.noarch.rpm: PASSED</pre> <p>All those messages are expected, and therefore aren't considered errors. Also note that sometime a carriage return is inserted in the log file causing some of the error messages to appear truncated. This is acceptable and should be ignored.</p> <p><b># grep -i warning /var/TKLC/log/upgrade/upgrade.log</b></p> <p>Examine the output of the above command to determine if any warnings were reported. Contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F, if the output contains any warnings beside the following:</p> <pre>1342412966::useradd: warning: the home directory already exists. 1342413940::WARNING: A new file was added to xml alarm files...reparsing xml... 1342413943::WARNING: FILE: /usr/TKLC/plat/etc/alarms/alarms_mps.xml 1342413959::TKLCepap-HA #####warning: group root} does not exist - using root 1342413978::WARNING: stale PID file /var/TKLC/run/RunAndLog/11027.pid detected!</pre> <p>Refer to section 3.6 to know more about logging.</p>
<p>18. <input type="checkbox"/></p>	<p><b>MPS A: Verify the Upgrade.</b></p>	<p><b># grep "UPGRADE IS COMPLETE" /var/TKLC/log/upgrade/upgrade.log</b></p> <p>Verify that the message "UPGRADE IS COMPLETE" is displayed. If it is not, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p> <pre>1252687571:: UPGRADE IS COMPLETE</pre>
<p>19. <input type="checkbox"/></p>	<p><b>MPS A: Enable syscheck fs module.</b></p>	<p><b>Execute the following command to enable the syscheck fs module.</b></p> <p><b># syscheckAdm --enable disk fs</b></p>
<p>20. <input type="checkbox"/></p>	<p><b>MPS A: Upgrade is complete. Verify Health of MPS A.</b></p>	<p>Execute Appendix A.1 on MPS A to verify the health of MPS A.</p> <p>On a Provisionable MPS, expect that the syscheck utility will alarm the fact that the PDBA software is not running. This will appear as a "5000000000000002 – Server Application Process Error" alarm.</p> <p>Verify that no unexpected alarms are noted.</p>
<p>21. <input type="checkbox"/></p>	<p><b>Reconnect console cable.</b></p>	<p>On T1200 server, reconnect the console cable between the 'dongle' labeled 'S0' on the T1200 A server and the 'dongle' labeled 'S1' on the T1200 B server. <b>Cable part numbers - 830-1229-xx</b></p> <p>On E5-APP-B card, reconnect the console cable between the serial port labeled 'S0' on E5-APP-B A card's adapter and the serial port labeled 'S1' on the E5-APP-B B card's adapter. <b>Cable part numbers - 830-1220-xx</b></p>
<p>22. <input type="checkbox"/></p>	<p><b>Reboot Eagle Cards.</b></p>	<p>If the DB levels on EPAP and Eagle matches and there is no alarm on Eagle related to "RTDB reload is required", go to step 23.</p>

**Procedure 17: Upgrade MPS A**

		<p>Reboot 1 SM card on the Eagle and verify that it comes back to an IS-NR/Active state.</p> <p>If this is a Non-Provisionable EPAP, boot the rest of the Eagle SM cards over 4 batches (booting 1/4 of the cards at a single time). You may continue onto step 23 without waiting for all cards to load to an IS-NR/Active state (verify at a later time).</p> <p>If this is a Provisionable EPAP, and the second MPS A on which backout has been executed, reboot the rest of the cards on both local and remote sides over 4 batches (booting 1/4 of the cards at a single time).</p>
<p>23. <input type="checkbox"/></p>	<p>Procedure is complete.</p>	<p>Procedure is complete.</p> <p><b>Note: If upgrading an EPAP Provisionable mated pair and you have just completed this procedure for the Local MPS A and MPS B. Repeat the same procedures to upgrade the Remote Pair. See Section 2.1 for more information.</b></p>

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**THIS COMPLETES THE UPGRADE**

## 7. RECOVERY PROCEDURES

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

***Warning: Do not attempt to perform these backout procedures without first contacting the Tekelec Customer Care Center at 1-888-FOR-TKLC or 1-888-367-8552; or for international callers 1-919-460-2150.***

**NOTE: These recovery procedures are provided for the backout of an Upgrade ONLY (i.e., from a failed 15.x release to the previously installed 15.a release). Backout of an initial installation is not supported.**

### 7.1 Backout Setup

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

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

### 7.2 Perform Backout

No matter the initial cause of the upgrade problem, once all necessary corrective steps have been taken to prepare for the backout, then the following procedure can be executed to perform a backout. Refer to section 2.2 for the Backout process overview.

## 7.2.1 Backout - MPS B Server Only

### Procedure 18: MPS B Only Backout Procedure


<b>S T E P #</b>	<p>This procedure provides instructions to perform backout on MPS B server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>Note: Execute this procedure if only MPS B has been upgraded or partially upgraded and MPS A is still at the pre-upgrade release.</b></p>	
1. <input type="checkbox"/>	<p>Terminate all previous connections (ssh).</p>	<p>If not already connected, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>For connecting the T1200 B server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the ‘dongle’ labeled ‘S1’ on the T1200 A server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B A cards adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p> <p>Skip to step 5, if connected through serial console.</p>
2. <input type="checkbox"/>	<p>Create a terminal window and establish a connection by logging into MPS A.</p> <p>Log in to MPS A.</p>	<p>In a newly created terminal window labeled “MPS B – from MPS A”, connect directly into MPS A.</p> <p><b># ssh root@&lt;MPS A&gt;</b> <b>Password: &lt;password&gt;</b></p>
3. <input type="checkbox"/>	<p><b>MPS A:</b> Start screen session</p> <p><b>MPS A:</b> Connect to the console of MPS B.</p>	<p>Execute the following commands to start screen and establish a console session to MPS B.</p> <p><b># screen</b></p> <p>Execute the following command on T1200:</p> <p><b># minicom epap_b</b> OR <b># cu -l /dev/ttyS4 -s 115200</b></p> <p>Execute the following command on E5-APP-B:</p> <p><b># minicom mate</b> OR <b># cu -l /dev/ttyS1 -s 115200</b></p>
4. <input type="checkbox"/>	<p><b>MPS B:</b> Login prompt is displayed.</p>	<p>&lt;hostname&gt; console login:</p> <p>Note: Hit enter if no login prompt is displayed.</p>
5. <input type="checkbox"/>	<p><b>MPS B:</b> Log in to the server as user “root”.</p>	<p>If not already logged-in, then log in.</p> <p>&lt;hostname&gt; console login: root Password: &lt;password&gt;</p>

## Procedure 18: MPS B Only Backout Procedure

6. <input type="checkbox"/>	<b>MPS B:</b> Change directory.	Change to the backout directory.  <b># cd /var/TKLC/backout</b>
7. <input type="checkbox"/>	<b>MPS B:</b> Execute the backout.	Execute the following command to initiate the backout:  <b># ./backout_server</b>  <b>NOTE:</b> When backout operation asks if you would like to proceed with backout, answer "Y".
8. <input type="checkbox"/>	<b>MPS B:</b> Backout proceeds.	Many informational messages will come across the terminal screen as the backout proceeds.  Finally, after backout is complete, a message will be displayed stating that a reboot is required.  The server will be at runlevel 3 and no applications are running. Proceed to the next step to verify the backout and manually reboot the server.
9. <input type="checkbox"/>	<b>MPS B:</b> Verify the Backout	Examine the upgrade logs in the directory <code>/var/TKLC/log/upgrade</code> and verify that no errors were reported.  <b># grep -i error /var/TKLC/log/upgrade/upgrade.log</b> <b># grep -i error /var/TKLC/log/upgrade/ugwrap.log</b>  Examine the output of the above commands to determine if any errors were reported.  Refer to section 3.6 to know more about logging.
10. <input type="checkbox"/>	<b>MPS B:</b> Verify the Backout.	If the backout was <i>not</i> successful and errors were recorded in the logs, then contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F for further instructions.  If the backout <i>was</i> successful, then continue with the following step.
11. <input type="checkbox"/>	<b>MPS B:</b> Reboot the MPS.	Only perform this step on a backout of an incremental upgrade.  Perform the following commands to reboot the MPS:  <b># init 6</b>
12. <input type="checkbox"/>	<b>MPS B:</b> Reboot completed.	After the reboot, the screen will display the login prompt, as shown in the example below.



**Procedure 18: MPS B Only Backout Procedure**

		
<p>13. <input type="checkbox"/></p>	<p><b>MPS B:</b> Login to MPS B.</p>	<p>If the login prompt appears, continue on to step 16</p> <p>If the login prompt does not appear due to disconnect, go to step 14.</p>
<p>14. <input type="checkbox"/></p>	<p>Create a terminal window and establish a connection by logging into MPS A.</p> <p>Log into MPS A.</p>	<p>In a newly created terminal window labeled “<b>MPS B – from MPS A</b>”, connect directly into MPS A.</p> <pre># ssh root@&lt;MPS A&gt; Password: &lt;password&gt;</pre>
<p>15. <input type="checkbox"/></p>	<p><b>MPS A:</b> Rejoin previous screen session on MPS B.</p>	<p>Execute the following command to disconnect and then rejoin previous screen session:</p> <pre># screen -dr</pre>
<p>16. <input type="checkbox"/></p>	<p><b>MPS B:</b> Verify Health of MPS B.</p>	<p>Execute Appendix A.1 on MPS B to verify the health of MPS B.</p>
<p>17. <input type="checkbox"/></p>	<p>Reconnect console cable.</p>	<p>On T1200 server, reconnect the console cable between the ‘dongle’ labeled ‘S0’ on the T1200 B server and the ‘dongle’ labeled ‘S1’ on the T1200 A server. <b>Cable part numbers - 830-1229-xx</b></p> <p>On E5-APP-B card, reconnect the console cable between the serial port labeled ‘S0’ on E5-APP-B B card’s adapter and the serial port labeled ‘S1’ on the E5-APP-B A card’s adapter. <b>Cable part numbers - 830-1220-xx</b></p>
<p>18. <input type="checkbox"/></p>	<p>Procedure complete.</p>	<p>This procedure is complete.</p>

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

## 7.2.2 Backout – Both MPS A and B Servers

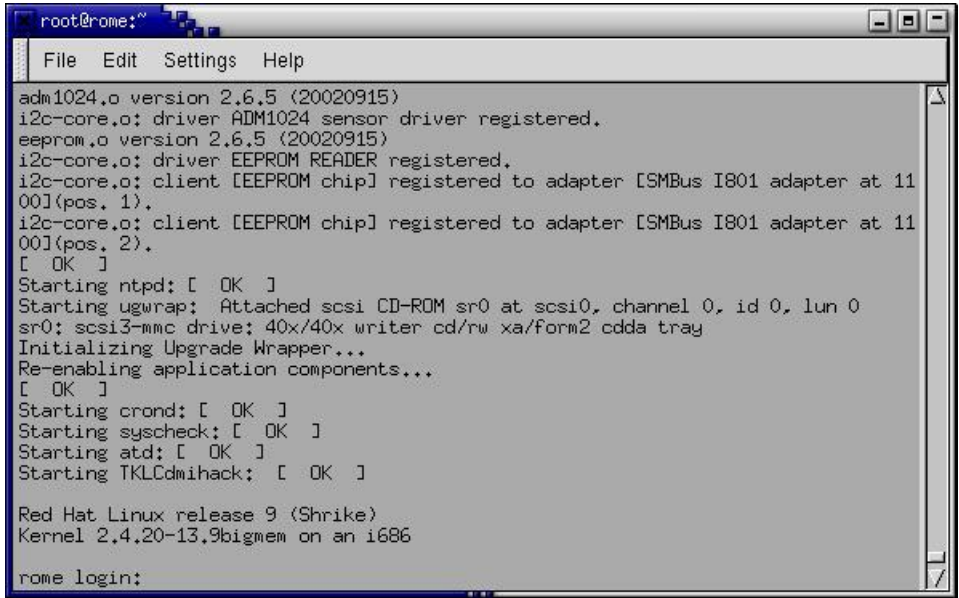
### Procedure 19: Both MPS A and B Backout Procedure

S T E P #	This procedure provides instructions to perform backout on both MPS A and MPS B servers.  Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.  <b>Note: Execute this procedure only if both MPS A and MPS B have been upgraded or partially upgraded and you wish to backout both servers to the previous version.</b>	
1. <input type="checkbox"/>	Terminate all previous connections (ssh).	<p>If not already connected, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>On the back of the T1200 A server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the ‘dongle’ labeled ‘S1’ on the T1200 B server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B A card, disconnect the console cable from the serial port on the E5-APP-B B card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B B card’s adapter and use it for serial access. <b>Cable part numbers - 830-1220-xx</b></p> <p>Skip to step 7, if connected through serial console.</p>
2. <input type="checkbox"/>	Create a terminal window and establish a connection by logging into MPS B.  Log into MPS B.	<p>In a newly created terminal window labeled “<b>MPS A – from MPS B</b>”, connect directly into MPS B.</p> <p><b># ssh root@&lt;MPS B&gt;</b> <b>Password: &lt;password&gt;</b></p>
3. <input type="checkbox"/>	<p><b>MPS B:</b> Start screen session.</p> <p><b>MPS B:</b> Connect to the console of MPS A.</p>	<p>Execute the following commands to start screen and establish a console session to MPS A.</p> <p><b># screen</b></p> <p>Execute the following command on T1200:</p> <p><b># minicom epap_a</b> OR <b># cu -l /dev/ttyS4 -s 115200</b></p> <p>Execute the following command on E5-APP-B:</p> <p><b># minicom mate</b> OR <b># cu -l /dev/ttyS1 -s 115200</b></p>
4. <input type="checkbox"/>	<b>MPS A:</b> Login prompt is displayed.	<p><b>&lt;hostname&gt; console login:</b></p> <p>Note: Hit enter if no login prompt is displayed.</p>
5. <input type="checkbox"/>	<b>MPS A:</b> Log in to the server as user “root”.	<p>Log in as ‘root’.</p> <p><b>&lt;hostname&gt; console login: root</b> <b>Password: &lt;password&gt;</b></p>

**Procedure 19: Both MPS A and B Backout Procedure**

6. <input type="checkbox"/>	<b>MPS A:</b> Check if RTDB and PDDBA databases are caught up.	<p>Execute the following command to check the RTDB and PDB database levels:</p> <pre><b># dbstattool</b></pre> <p>The outlook may look like:</p> <pre>DBSTATTOOL Platform=EPAP ----- pdb_birthdate      = 1062702578 (Thu Sep  4 15:09:38 2003) <b>pdb_level          = 700175645</b> rtdb_pdb_birthdate = 1062702578 (Thu Sep  4 15:09:38 2003) rtdb_begin_dsm_level = 700175603 <b>rtdb_end_dsm_level = 700175645</b> rtdb_dsm_birthdate  = 1250098556 (Wed Aug 12 13:35:56 2009) rtdb_dsm_status     = 1 rtdb_load_state     = 0 eagle_fmt_pdb_birthdate = 863577095 (eagle format - be careful!) eagle_fmt_rtdb_pdb_birthdate = 863577095 (eagle format - be careful!) eagle_fmt_rtdb_dsm_birthdate = 2087455763 (eagle format - be careful!) pdba_last_upd_ipaddr   = 0 pdba_last_upd_timestamp = 0 (Wed Dec 31 19:00:00 1969) dbstattool_pad1       = 0 dbstattool_pad2       = 0 dbstattool_pad3       = 0 dbstattool_pad4       = 0 dbstattool_timestamp  = 0 (Wed Dec 31 19:00:00 1969) rtdb_version          = 3</pre> <p>Note down the RTDB and PDDBA database levels. If they are not the same prior to backout, an RTDB reload from PDDBA must be performed after backout!</p>
7. <input type="checkbox"/>	<b>MPS A:</b> Change directory.	<p>Change to the backout directory.</p> <pre><b># cd /var/TKLC/backout</b></pre>
8. <input type="checkbox"/>	<b>MPS A:</b> Execute the backout.	<p>Execute the following command to initiate the backout:</p> <pre><b># ./backout_server</b></pre> <p><b>NOTE:</b> When backout operation asks if you would like to proceed with backout, answer “Y”.</p>
9. <input type="checkbox"/>	<b>MPS A:</b> Backout proceeds.	<p>Many informational messages will come across the terminal screen as the backout proceeds.</p> <p>Finally, after backout is complete, a message will be displayed stating that a reboot is required.</p> <p>The server will be at runlevel 3 and no applications are running. Proceed to the next step to verify the backout and manually reboot the server.</p>
10. <input type="checkbox"/>	<b>MPS A:</b> Verify the Backout.	<p>Examine the upgrade logs in the directory <code>/var/TKLC/log/upgrade</code> and verify that no errors were reported.</p> <pre><b># grep -i error /var/TKLC/log/upgrade/upgrade.log</b></pre>

## Procedure 19: Both MPS A and B Backout Procedure

		<pre># grep -i error /var/TKLC/log/upgrade/ugwrap.log</pre> <p>Examine the output of the above commands to determine if any errors were reported.</p> <p>Refer to section 3.6 to know more about logging.</p>
11. <input type="checkbox"/>	MPS A: Verify the Backout.	<p>If the backout was <i>not</i> successful and errors were recorded in the logs, then contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F for further instructions.</p> <p>If the backout <i>was</i> successful, then enter continue with the following steps:</p>
12. <input type="checkbox"/>	MPS A: Reboot the MPS.	<p>Perform the following commands to reboot the MPS:</p> <pre># init 6</pre>
13. <input type="checkbox"/>	MPS A: Backout completed.	<p>After the reboot, the screen will display the login prompt, as shown in the example below.</p>  <p>The screenshot shows a terminal window titled 'root@rome:~'. The window contains the following text:</p> <pre>File Edit Settings Help adm1024.o version 2.6.5 (20020915) i2c-core.o: driver ADM1024 sensor driver registered. eeprom.o version 2.6.5 (20020915) i2c-core.o: driver EEPROM READER registered. i2c-core.o: client [EEPROM chip] registered to adapter [SMBus I801 adapter at 11 00](pos. 1). i2c-core.o: client [EEPROM chip] registered to adapter [SMBus I801 adapter at 11 00](pos. 2). [ OK ] Starting ntpd: [ OK ] Starting ugwrap: Attached scsi CD-ROM sr0 at scsi0, channel 0, id 0, lun 0 sr0: scsi3-mmc drive: 40x/40x writer cd/rw xa/form2 cdda tray Initializing Upgrade Wrapper... Re-enabling application components... [ OK ] Starting crond: [ OK ] Starting syscheck: [ OK ] Starting atd: [ OK ] Starting TKLcdmihack: [ OK ]  Red Hat Linux release 9 (Shrike) Kernel 2.4.20-13.9bigmem on an i686 rome login:</pre>
14. <input type="checkbox"/>	MPS A: Login to MPS A.	<p>If the login prompt appears, skip to step 17.</p> <p>If the login prompt does not appear due to disconnect, go to step 15.</p>
15. <input type="checkbox"/>	<p>Create a terminal window and establish a connection by logging into MPS B.</p> <p>Log into MPS B.</p>	<p>In a newly created terminal window labeled “MPS A – from MPS B”, connect directly into MPS B.</p> <pre># ssh root@&lt;MPS B&gt; Password: &lt;password&gt;</pre>
16. <input type="checkbox"/>	MPS B: Rejoin previous screen session on MPS A.	<p>Execute the following command to disconnect and then rejoin previous screen session:</p> <pre># screen -dr</pre>
17. <input type="checkbox"/>	MPS A: Verify Health of MPS A.	<p>Execute Appendix A.1 on MPS A to verify the health of MPS A</p>


**Procedure 19: Both MPS A and B Backout Procedure**

		Also, the syscheck utility may report the “5000000000000002 - Server Application Process Error” for PDBA, if the pdba software is not running.
18. <input type="checkbox"/>	Terminate all previous connections (ssh).	<p>If not already connected, connect to the T1200 server/E5-APP-B card via the serial port.</p> <p>For connecting the T1200 B server, disconnect the console cable from the serial port. The cable should be disconnected at the point where it connects to the ‘dongle’ labeled ‘S1’ on the T1200 A server. <b>Cable part numbers - 830-1229-xx</b></p> <p>For connecting the E5-APP-B B card, disconnect the console cable from the serial port on the E5-APP-B A card’s adapter. The cable should be disconnected at the point where it connects to the serial port labeled ‘S1’ on the E5-APP-B A cards adapter and use it for serial access.</p> <p>Skip to step 22, if connected through serial console.</p>
19. <input type="checkbox"/>	Create a terminal window and establish a connection by logging into MPS A.  Log into MPS A.	<p>In a newly created terminal window labeled “<b>MPS B – from MPS A</b>”, connect directly into MPS A.</p> <p><b># ssh root@&lt;MPS A&gt;</b> <b>Password: &lt;password&gt;</b></p>
20. <input type="checkbox"/>	<b>MPS A:</b> Start screen session.  <b>MPS A:</b> Connect to the console of MPS B.	<p>Execute the following commands to start screen and establish a console session to MPS B.</p> <p><b># screen</b></p> <p>Execute the following command on T1200:</p> <p><b># minicom epap_b</b> OR <b># cu -l /dev/ttys4 -s 115200</b></p> <p>Execute the following command on E5-APP-B:</p> <p><b># minicom mate</b> OR <b># cu -l /dev/ttys1 -s 115200</b></p>
21. <input type="checkbox"/>	<b>MPS B:</b> Login prompt is displayed.	<p>&lt;hostname&gt; console login:</p> <p>Note: Hit enter if no login prompt is displayed.</p>
22. <input type="checkbox"/>	<b>MPS B:</b> Log in to the server as user “root”.	<p>&lt;hostname&gt; console login: <b>root</b> <b>Password: &lt;password&gt;</b></p>
23. <input type="checkbox"/>	<b>MPS B:</b> Change directory.	<p>Change to the backout directory.</p> <p><b># cd /var/TKLC/backout</b></p>
24. <input type="checkbox"/>	<b>MPS B:</b> Execute the backout.	<p>Execute the backout using the ugwrap script.</p> <p><b># ./backout_server</b></p>

## Procedure 19: Both MPS A and B Backout Procedure

		<b>NOTE:</b> When backout operation asks if you would like to proceed with backout, answer “Y”.
25. <input type="checkbox"/>	<b>MPS B:</b> Backout proceeds.	<p>Many informational messages will come across the terminal screen as the backout proceeds.</p> <p>Finally, after backout is complete, a message will be displayed stating that a reboot is required.</p> <p>The server will be at runlevel 3 and no applications are running. Proceed to the next step to verify the backout and manually reboot the server.</p>
26. <input type="checkbox"/>	<b>MPS B:</b> Verify the Backout.	<p>Only perform this step on a backout of an incremental upgrade.</p> <p>Examine the upgrade logs in the directory <code>/var/TKLC/log/upgrade</code> and verify that no errors were reported.</p> <pre># grep -i error /var/TKLC/log/upgrade/upgrade.log # grep -i error /var/TKLC/log/upgrade/ugwrap.log</pre> <p>Examine the output of the above command to determine if any errors were reported.</p> <p>Refer to section 3.6 to know more about logging.</p>
27. <input type="checkbox"/>	<b>MPS B:</b> Verify the Backout.	<p>If the backout was <i>not</i> successful and errors were recorded in the logs, then contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix for further instructions.</p> <p>If the backout <i>was</i> successful, then enter continue with the following steps:</p>
28. <input type="checkbox"/>	<b>MPS B:</b> Reboot the MPS.	<p>Perform the following commands to reboot the MPS:</p> <pre># init 6</pre>
29. <input type="checkbox"/>	<b>MPS B:</b> Backout completed.	<p>After the final reboot, the screen will display the login prompt, as shown in the example below.</p>

**Procedure 19: Both MPS A and B Backout Procedure**

		
<p>30. <input type="checkbox"/></p>	<p><b>MPS B:</b> Login to MPS B.</p>	<p>If the login prompt appears, skip to step 36.</p> <p>If the login prompt does not appear due to disconnect, go to step 31.</p>
<p>31. <input type="checkbox"/></p>	<p>Create a terminal window and establish a connection by logging into MPS A.</p> <p>Log into MPS A</p>	<p>In a newly created terminal window labeled “MPS B – from MPS A”, connect directly into MPS A.</p> <pre># ssh root@&lt;MPS A&gt; Password: &lt;password&gt;</pre>
<p>32. <input type="checkbox"/></p>	<p><b>MPS A:</b> Rejoin previous screen session on MPS B</p>	<p>Execute the following command to disconnect and then rejoin previous screen session:</p> <pre># screen -dr</pre>
<p>33. <input type="checkbox"/></p>	<p><b>MPS B:</b> Log in to the server as user “root”.</p>	<pre>&lt;hostname&gt; console login: root Password: &lt;password&gt;</pre>
<p>34. <input type="checkbox"/></p>	<p><b>MPS B:</b> Verify Health of MPS B.</p>	<p>Execute Appendix A.1 on MPS B to verify the health of MPS B.</p>
<p>35. <input type="checkbox"/></p>	<p>Reconnect console cables.</p>	<p>On T1200 server, reconnect the console cable between the ‘dongle’ labeled ‘S0’ on the T1200 B server and the ‘dongle’ labeled ‘S1’ on the T1200 A server and the console cable between the ‘dongle’ labeled ‘S0’ on the T1200 A server and the ‘dongle’ labeled ‘S1’ on the T1200 B server. <b>Cable part numbers - 830-1229-xx</b></p> <p>On E5-APP-B card, reconnect the console cable between the serial port labeled ‘S0’ on E5-APP-B B card's adapter and the serial port labeled ‘S1’ on the E5-APP-B A card's adapter and the console cable between the serial port labeled ‘S0’ on E5-APP-B A card's adapter and the serial port labeled ‘S1’ on the E5-APP-B B card's adapter. <b>Cable part numbers - 830-1220-xx</b></p>
<p>36. <input type="checkbox"/></p>	<p><b>MPS A:</b> Check RTDB and PDB database levels.</p>	<p>Check the result of Step 6. If the RTDB and PDBA database levels were NOT same prior to backout, execute Appendix A.7 to perform an RTDB reload from PDBA.</p>
<p>37. <input type="checkbox"/></p>	<p>Reboot Eagle Cards.</p>	<p>If the DB levels on EPAP and Eagle matches and there is no alarm on Eagle related to “RTDB reload is required”, go to step 38.</p>

**Procedure 19: Both MPS A and B Backout Procedure**

		<p>Reboot 1 SM card on the Eagle and verify that it comes back to an IS-NR/Active state.</p> <p>If this is a Non-Provisionable EPAP, boot the rest of the Eagle SM cards over 4 batches (booting 1/4 of the cards at a single time). You may continue onto step 38 without waiting for all cards to load to an IS-NR/Active state (verify at a later time).</p> <p>If this is a Provisionable EPAP, and the second MPS A on which backout has been executed, reboot the rest of the cards on both local and remote sides over 4 batches (booting 1/4 of the cards at a single time).</p>
38. <input type="checkbox"/>	Procedure is complete.	This procedure is complete.

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

**7.3 Post Backout Procedures**

**7.3.1 Restart the PDBA Software (Post-Backout and Post-Upgrade)**

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

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

**Procedure 20: Restart the PDBA Software Post-Backout and Post-Upgrade**

<b>S T E P #</b>	<p>This procedure restarts the PDBA software after upgrade of all associated MPS systems has been completed.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b><u>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</u></b></p>	
<p><b>If backout has been performed, then execute this procedure ONLY after backout on all MPS servers in the entire set of EPAP systems. Otherwise, skip this procedure until all MPS servers have been backed out.</b></p>		
1. <input type="checkbox"/>	<p><b>Local MPS A:</b> Log in to the server as user "root".</p>	<p><b>&lt;hostname&gt; console login: root</b> <b>Password: &lt;password&gt;</b></p>
2. <input type="checkbox"/>	<p><b>Local MPS A:</b> Verify Health of MPS A.</p>	<p>If not done already, execute Appendix A.1 on MPS A to verify the health of MPS A.</p> <p>Expect that the syscheck utility will report the 'Server Application Process Error' alarm for the fact that the PDBA software is not running. Besides the PDBA not running alarm, verify that no other abnormalities are noted.</p>



**Procedure 20: Restart the PDBA Software Post-Backout and Post-Upgrade**

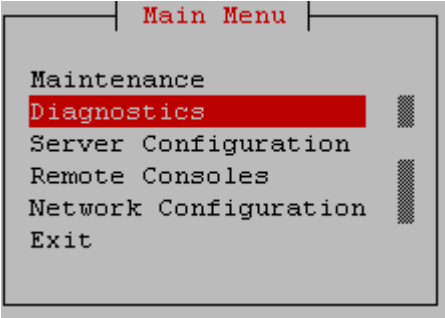
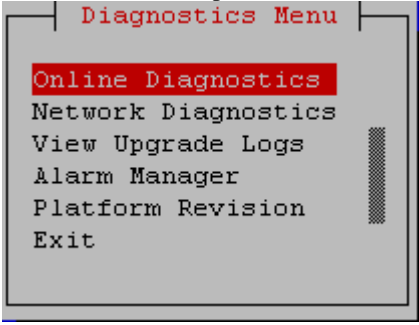
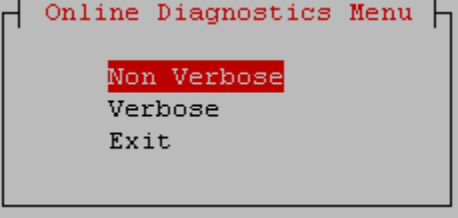
3. <input type="checkbox"/>	<b>Local MPS A:</b> Restart the PDBA software.	Execute the command below to find if the pdba is running or not:  <b># ps -aef   grep pdba   grep -v "grep"</b>  If the output contains an entry for the pdba, as shown below, then skip to the next step.  [root@MPS A ~]# ps -aef   grep pdba epapdev 23890 10248 0 Apr07 ? 00:01:18 /opt/TKLCappl/bin/pdba  Otherwise, execute the startPDBA script.  <b># startPDBA</b>
4. <input type="checkbox"/>	<b>Local MPS A:</b> Verify PDBA is running.	Execute Appendix A.1 on MPS A to verify the health of MPS A Verify that syscheck does <i>not</i> show that the PDBA is <i>not</i> running.
5. <input type="checkbox"/>	<b>Remote MPS A:</b> Log in to the server as user "root".	<b>&lt;hostname&gt; console login: root</b> <b>Password: &lt;password&gt;</b>
6. <input type="checkbox"/>	<b>Remote MPS A:</b> Verify Health of MPS A.	Execute Appendix A.1 on MPS A to verify the health of MPS A.  Expect that the syscheck utility will alarm the fact that the PDBA software is not running. This will appear as a "50000000000000002 -- Server Application Process Error" alarm. Besides the PDBA not running alarm, verify that no other abnormalities are noted.
7. <input type="checkbox"/>	<b>Remote MPS A:</b> Restart the PDBA software.	Execute the command below to find if the pdba is running or not:  <b># ps -aef   grep pdba   grep -v "grep"</b>  If the output contains an entry for the pdba, as shown below, then skip to the next step.  [root@MPS A ~]# ps -aef   grep pdba epapdev 23890 10248 0 Apr07 ? 00:01:18 /opt/TKLCappl/bin/pdba  Otherwise, execute the startPDBA script.  <b># startPDBA</b>
8. <input type="checkbox"/>	<b>Remote MPS A:</b> Verify PDBA is running.	Execute Appendix A.1 on MPS A to verify the health of MPS A. Verify that syscheck does <i>not</i> show that the PDBA is <i>not</i> running.
9. <input type="checkbox"/>	Procedure complete.	This procedure is complete.

**THIS COMPLETES THE BACKOUT**

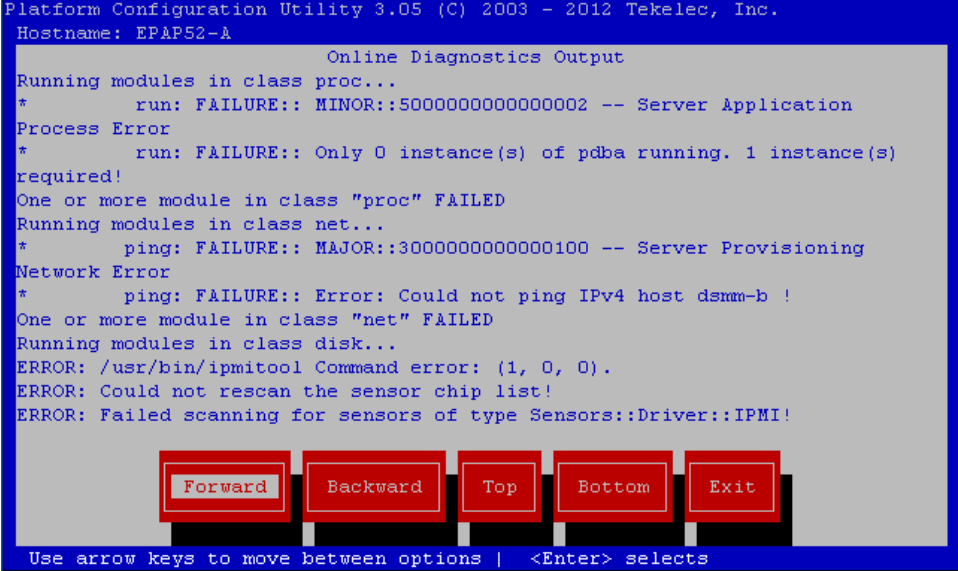
## APPENDIX A. GENERIC UPGRADE PROCEDURES

### A.1 Perform System Health Check

#### Procedure 21: Perform System Health Check

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

Procedure 21: Perform System Health Check

<p>6. <input type="checkbox"/></p>	<p>Examine the output of the Online Diagnostics.</p>	<p>Example output shown below. Examine the actual output of the Online Diagnostics.</p>  <pre> Platform Configuration Utility 3.05 (C) 2003 - 2012 Tekelec, Inc. Hostname: EPAP52-A                            Online Diagnostics Output Running modules in class proc... *      run: FAILURE:: MINOR::5000000000000002 -- Server Application Process Error *      run: FAILURE:: Only 0 instance(s) of pdba running. 1 instance(s) required! One or more module in class "proc" FAILED Running modules in class net... *      ping: FAILURE:: MAJOR::3000000000000100 -- Server Provisioning Network Error *      ping: FAILURE:: Error: Could not ping IPv4 host dsmm-b ! One or more module in class "net" FAILED Running modules in class disk... ERROR: /usr/bin/ipmitool Command error: (1, 0, 0). ERROR: Could not rescan the sensor chip list! ERROR: Failed scanning for sensors of type Sensors::Driver::IPMI!  Forward  Backward  Top  Bottom  Exit  Use arrow keys to move between options   &lt;Enter&gt; selects                 </pre>
<p>7. <input type="checkbox"/></p>	<p>System Check Successful.</p>       <p>System Check Failure.</p>	<p>Exit from the above menu.</p> <p>If the System Check was successful, return to the procedure that you came here from.</p> <p>If the “Server Disk Space Shortage Error” was there in the output, proceed to step 8 to clean up the ‘/’ directory.</p> <p>If any other failures were detected by System Check, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p>
<p>8. <input type="checkbox"/></p>	<p>Server clean up to create space.</p>	<p>Execute the following command:</p> <pre># df -h /var/TKLC</pre> <p>The output may look like:</p> <pre>[root@hostname ~]# df -h /var/TKLC Filesystem          Size  Used Avail Use% Mounted on /dev/md7             3.9G  1.2G  2.6G  32% /var/TKLC</pre> <p>Verify that there is at least 600M in the Avail column. If not, clean up files until there is space available.</p> <p><b>CAUTION: Make sure you know what files you can remove safely before cleaning up. It is recommended that you only clean up files in the /var/TKLC/upgrade directory as this is a platform owned directory that should only contain ISO images. This directory should not be expected to contain images for any length of time as they can get purged.</b></p> <p>Also, execute the following command to check space in ‘/lib/module’ directory.</p> <pre># df -h /lib/modules</pre> <pre>[root@hostname ~]# df -h /lib/modules</pre>

**Procedure 21: Perform System Health Check**

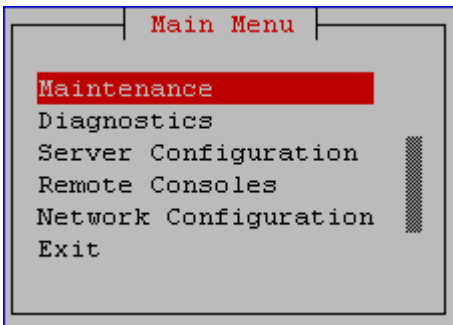
		<pre>Filesystem      Size  Used Avail Use% Mounted on /dev/md2        996M  353M  592M  38% /</pre> <p>Verify that the Use% column does not exceed the value 80%.</p> <p>If Use% column exceeds 80%, execute the Appendix A.8 to manually create space on the server.</p>
9. <input type="checkbox"/>	Procedure complete.	Return to the procedure that you came here from.

**A.2 Validate Upgrade Media**

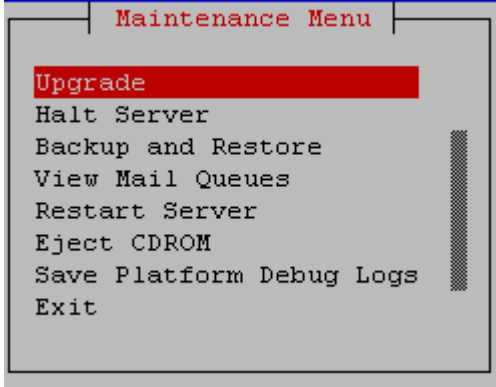
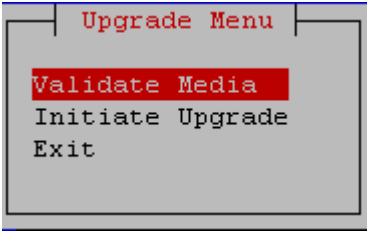
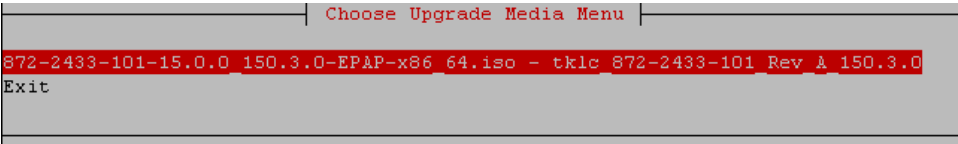
This procedure is used to execute a validation of the Upgrade Media (typically an ISO image) separately from executing an upgrade. The upgrade process automatically validates the upgrade media. However, sometime the user may wish to perform just a validation before proceeding with upgrade, thus the reason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

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

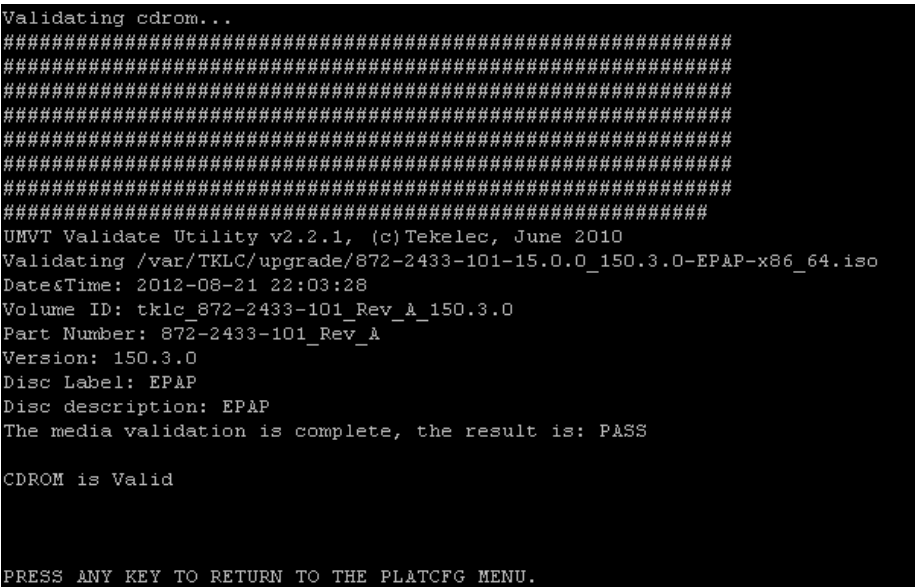
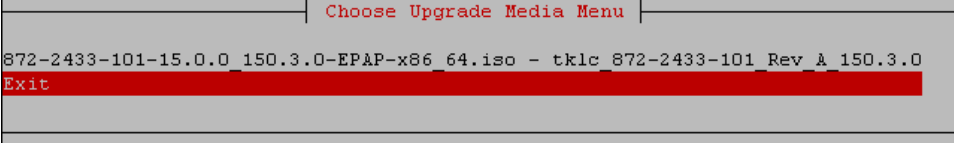
**Procedure 22: Validate the Upgrade Media on MPS**

<p><b>S</b> <b>T</b> <b>E</b> <b>P</b> <b>#</b></p>	<p>This procedure provides instructions to perform a validation of the upgrade media on the MPS X server. This procedure assumes that the T1200 Application Server or E5-APP-B card IPM procedure has been executed and the user has an EPAP Upgrade ISO image available.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</b></p>	
1. <input type="checkbox"/>	MPS X: Insert Upgrade CD into MPS X if EPAP ISO is available in CD.	
2. <input type="checkbox"/>	MPS X: If necessary, log in to the server as the user "root".	<p>If not already logged in to the MPS server, then login as user "root".</p> <pre>&lt;hostname&gt; console login: root password: &lt;password&gt;</pre>
3. <input type="checkbox"/>	MPS X: Execute the platcfg menu.	<pre># su - platcfg</pre>
4. <input type="checkbox"/>	MPS X: Select the Maintenance submenu.	<p>The platcfg <b>Main Menu</b> appears. On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p> 

**Procedure 22: Validate the Upgrade Media on MPS**

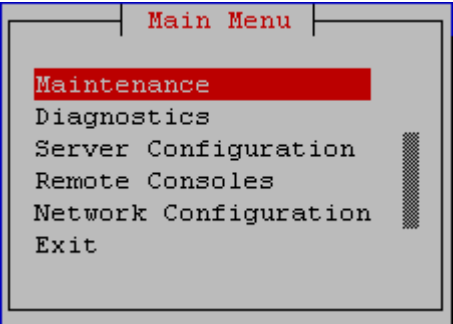
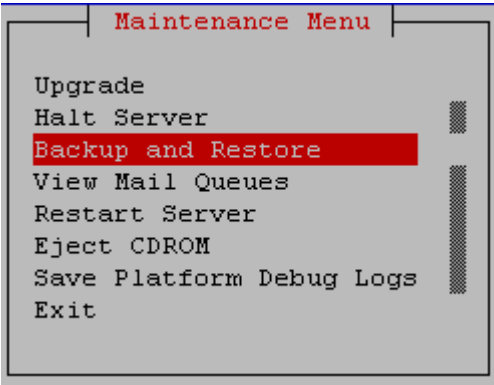
<p>5. <input type="checkbox"/></p>	<p><b>MPS X:</b> Select the Upgrade submenu.</p>	<p>Select the <b>Upgrade</b> menu and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Maintenance Menu". The menu items are: Upgrade (highlighted in red), Halt Server, Backup and Restore, View Mail Queues, Restart Server, Eject CDROM, Save Platform Debug Logs, and Exit.</p>
<p>6. <input type="checkbox"/></p>	<p><b>MPS X:</b> Select the Validate Media selection.</p>	<p>Select the <b>Validate Media</b> menu and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Upgrade Menu". The menu items are: Validate Media (highlighted in red), Initiate Upgrade, and Exit.</p>
<p>7. <input type="checkbox"/></p>	<p><b>MPS X:</b> Output from the Validate Media selection.</p>	<p>The screen will display a message that it is searching for upgrade media. Once the upgrade media is found, an Upgrade Media selection menu will be displayed similar to the example shown below.</p> <p>Select the upgrade media or ISO image. There should only be one selection available, as shown in the example below. If there is more than one selection available, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p>  <p>The screenshot shows a terminal window titled "Choose Upgrade Media Menu". The menu items are: 872-2433-101-15.0.0_150.3.0-EPAP-x86_64.iso - tk1c 872-2433-101 Rev A_150.3.0 (highlighted in red) and Exit.</p>

**Procedure 22: Validate the Upgrade Media on MPS**

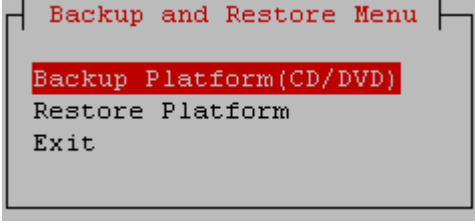
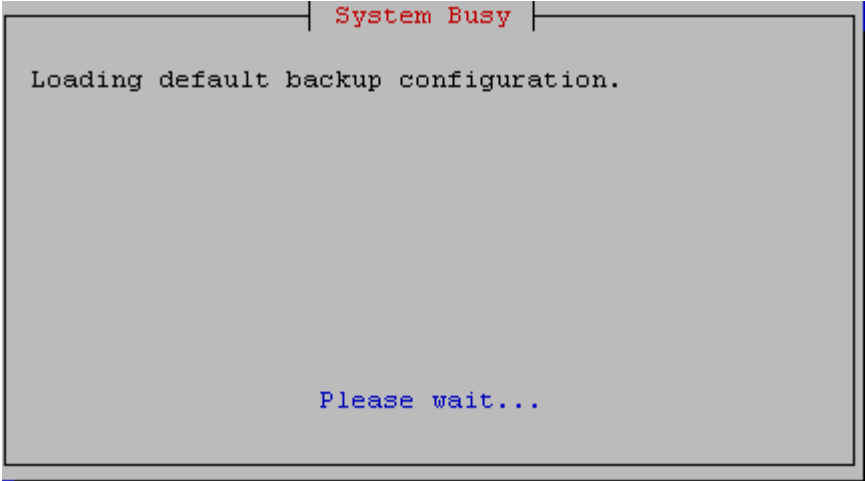
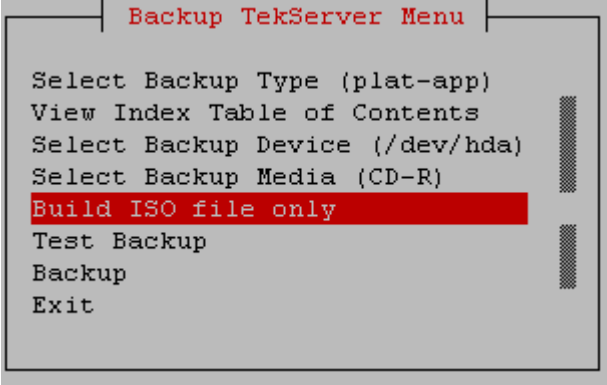
<p>8. <input type="checkbox"/></p>	<p><b>MPS X:</b> View the Validation results.</p>	<p>The results of the validation will be displayed, similar to the example below. Press the “enter” key to continue.</p> 
<p>9. <input type="checkbox"/></p>	<p><b>MPS X:</b> Select the Exit option.</p>	<p>Select the <b>Exit</b> option, and keep selecting the Exit option, until you reach the command line prompt or you return to another menu that you wish to use.</p> 
<p>10. <input type="checkbox"/></p>	<p><b>MPS X:</b> Procedure complete.</p>	<p>Media Validation is complete. Return to the procedure that you came here from.</p>

### A.3 Perform System Configuration Backup

#### Procedure 23: System Configuration Backup

<b>S T E P #</b>	<p>This procedure performs configuration backup on an MPS Server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
1. <input type="checkbox"/>	<p><b>MPS X:</b> If necessary, log in to the server as the user “root”.</p>	<p>If not already logged in to the MPS server, then login as user “root”.</p> <pre>&lt;hostname&gt; console login: root password: &lt;password&gt;</pre>
2. <input type="checkbox"/>	<p><b>MPS X:</b> Execute the platcfg menu.</p>	<pre># su - platcfg</pre>
3. <input type="checkbox"/>	<p><b>MPS X:</b> Select the Maintenance submenu.</p>	<p>The platcfg <b>Main Menu</b> appears. On the <b>Main Menu</b>, select <b>Maintenance</b> and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Main Menu" with the following options: Maintenance (highlighted in red), Diagnostics, Server Configuration, Remote Consoles, Network Configuration, and Exit. A vertical scrollbar is visible on the right side of the menu.</p>
4. <input type="checkbox"/>	<p><b>MPS X:</b> Select the Backup Platform submenu.</p>	<p>Select the <b>Backup and Restore</b> menu and press [ENTER].</p>  <p>The screenshot shows a terminal window titled "Maintenance Menu" with the following options: Upgrade, Halt Server, Backup and Restore (highlighted in red), View Mail Queues, Restart Server, Eject CDROM, Save Platform Debug Logs, and Exit. A vertical scrollbar is visible on the right side of the menu.</p>
5. <input type="checkbox"/>	<p><b>MPS X:</b> Select the Backup Platform submenu.</p>	<p>Select the <b>Backup Platform (CD/DVD)</b> submenu and press [ENTER].</p>

**Procedure 23: System Configuration Backup**

		 <pre> Backup and Restore Menu Backup Platform(CD/DVD) Restore Platform Exit                     </pre>
<p>6. <input type="checkbox"/></p>	<p><b>MPS X:</b> Backup continues.</p>	<p>The backup continues. The following busy screen may appear.</p>  <pre> System Busy Loading default backup configuration. Please wait...                     </pre>
<p>7. <input type="checkbox"/></p>	<p><b>MPS X:</b> Select the Build ISO file only selection.</p>	<p>Select the <b>Build ISO file only</b> selection and press [ENTER].</p>  <pre> Backup TekServer Menu Select Backup Type (plat-app) View Index Table of Contents Select Backup Device (/dev/hda) Select Backup Media (CD-R) Build ISO file only Test Backup Backup Exit                     </pre>
<p>8. <input type="checkbox"/></p>	<p><b>MPS X:</b> Backup complete – select exit.</p>	<p>Once the ISO has been created, the “<b>Backup TekServer Menu</b>” will be displayed again. Select the Exit option, and keep selecting the Exit option, until you reach the command line prompt.</p>
<p>9. <input type="checkbox"/></p>	<p><b>MPS X:</b> Transfer the backup file.</p>	<p>The backup file is in the /var/TKLC/bkp directory and will have a name like &lt;hostname&gt;-plat-app-[date][time].iso</p> <p>Execute the following command to view the backup file:  <b># ls -l /var/TKLC/bkp</b></p>
<p>10. <input type="checkbox"/></p>	<p><b>MPS X:</b> Transfer file to remote machine.</p>	<p>Using SFTP (secure-FTP), transfer the ISO to a remote, customer-provided computer. Enter “yes” when prompted if you want to continue to connect.</p>



**Procedure 23: System Configuration Backup**

		<pre> # cd /var/TKLC/bkp  # sftp &lt;IP address of remote computer&gt; Connecting to &lt;IP address of remote computer&gt;... The authenticity of host '&lt;IP address of remote computer&gt;' can't be established. DSA key fingerprint is 58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24. Are you sure you want to continue connecting (yes/no)? <b>yes</b> Warning: Permanently added &lt;IP address of remote computer&gt;' (DSA) to the list of known hosts. root@&lt;IP address of remote computer&gt;'s password: sftp&gt; cd &lt;target directory&gt; sftp&gt; put &lt;hostname&gt;-plat-app-[date][time].iso Uploading &lt;hostname&gt;-plat-app-[date][time].iso to &lt;hostname&gt;-plat- app-[date][time].iso sftp&gt; bye  If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command:  # scp /var/TKLC/bkp/&lt;ISO file&gt; root@mate:/var/TKLC/epap/free/ </pre>
11. <input type="checkbox"/>	Procedure complete.	Return to the procedure that you came here from.

### A.4 PDB Database Backup

#### Procedure 24: PDBA Database Backup

<b>S T E P #</b>	<p>This procedure performs a PDB backup on the EPAP server configured as a Provisionable node. This procedure should only be performed on the active PDBA.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p><b>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</b></p>	
1. <input type="checkbox"/>	<p><b>MPS A:</b> Log in to the server.</p>	<p>If not already logged-in, then login at MPS A:  <b>&lt;hostname&gt; console login: root</b>  <b>Password: &lt;password&gt;</b></p>
2. <input type="checkbox"/>	<p>Run syscheck.</p>	<p>Execute the following Command:</p> <p><b># syscheck</b></p>
3. <input type="checkbox"/>	<p>Verify the System Check executed successfully.</p> <p>In particular, verify that the PDBA process is running by noting that syscheck does not generate an alarm against the PDBA process.</p>	<pre>Running modules in class disk...      OK Running modules in class net...       OK Running modules in class proc...      OK Running modules in class system...    OK Running modules in class hardware...  OK</pre> <p>The log is available at:          --&gt;/var/TKLC/log/syscheck/fail_log</p> <p>If the syscheck utility reports the “5000000000000002 – Server Application Process Error” alarm, restart the PDBA and execute syscheck again. The above alarm should be removed. If the above alarm is not removed, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p>
4. <input type="checkbox"/>	<p>System Check Verifies that PDBA is running.</p>	<p>If the syscheck does not report any errors, proceed to the next step. Otherwise, if any other failures were detected by System Check, contact the Technical Assistance Center following the instructions on the front page or the instructions on the Appendix F.</p>
5. <input type="checkbox"/>	<p>Log into epapconfig.</p>	<p><b># su - epapconfig</b></p>
6. <input type="checkbox"/>	<p>Main menu is displayed. Select Platform Menu.</p>	<pre>/-----EPAP Configuration Menu-----\ /-----\  1   Display Configuration --- -----  2   Configure Network Interfaces Menu --- -----  3   Set Time Zone --- -----  4   Exchange Secure Shell Keys --- -----  5   Change Password --- -----  6   Platform Menu --- -----  7   Configure NTP Server --- -----  8   PDB Configuration Menu --- -----  9   Security</pre>

## Procedure 24: PDBA Database Backup

		<pre> -----   e   Exit ----- </pre> <p>Enter Choice: 6</p>
7.	Platform menu is displayed. Select PDB Backup.	<pre> /-----EPAP Platform Menu-\   1   Initiate Upgrade   2   Reboot MPS   3   MySQL Backup   4   RTDB Backup   5   Eject CD   6   Halt MPS   7   PDB Backup   e   Exit ----- </pre> <p>Enter Choice: 7</p>
8.	Menu will prompt for a “yes” to continue. Enter a Y.	<pre> Are you sure you want to backup the PDB to /var/TKLC/appl/free/pdbBackup_&lt;hostname&gt;_20030530151806_DDBirthdate_ e_20030530144717GMT_DBLevel_&lt;DBLevel&gt;.bkp.tar.gz? [N]: Y </pre>
9.	While the backup is begin performed, the following output will be displayed to the screen.	<pre> Successfully started backup of PDB. Status will be displayed on the GUI banner.  Press return to continue... </pre>
10.	Exit this menu and return to the login prompt.	<pre> Enter Choice: e  Enter Choice: e </pre>
11.	Monitor GUI banner.	Monitor the GUI banner. When the backup has completed successfully, continue to the next step.
12.	Use SFTP to transfer the backup file to a remote customer provided computer.	<pre> Using SFTP (secure-FTP), transfer the PDB backup file to a remote, customer-provided computer. Enter “yes” when prompted if you want to continue to connect.  # cd /var/TKLC/epap/free  # sftp &lt;IP address of remote computer&gt; Connecting to &lt;IP address of remote computer&gt;... The authenticity of host '&lt;IP address of remote computer&gt;' can't be established. DSA key fingerprint is 58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24. Are you sure you want to continue connecting (yes/no)? <b>yes</b> Warning: Permanently added &lt;IP address of remote computer&gt;' (DSA) to the list of known hosts. root@&lt;IP address of remote computer&gt;'s password: sftp&gt; cd &lt;target directory&gt; sftp&gt; put pdbBackup_&lt;hostname&gt;_20030530151806_DDBirthdate_ 20030530144717GMT_DBLevel_&lt;DBLevel&gt;.bkp.tar.gz Uploading pdbBackup_&lt;hostname&gt;_20030530151806_DDBirthdate_ </pre>

**Procedure 24: PDBA Database Backup**

		<pre>20030530144717GMT_DBLevel_&lt;DBLevel&gt;.bkp.tar.gz to pdbBackup_&lt;hostname&gt;_ 20030530151806_DDBirthdate_20030530144717GMT_DBLevel_&lt;DBLevel&gt;.bkp .tar.gz sftp&gt; bye</pre> <p>If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command</p> <pre><b># scp /var/TKLC/epap/free/&lt;pdb backup file&gt; epapdev@mate:/var/TKLC/epap/free/</b></pre>
<b>13.</b> <input type="checkbox"/>	Procedure complete.	Return to the procedure that you came here from.

### A.5 RTDB Database Backup

#### Procedure 25: RTDB Database Backup

<b>S T E P #</b>	<p>This procedure performs an RTDB backup on the EPAP server. Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
1. <input type="checkbox"/>	<p><b>MPS B:</b> Log in to the server.</p>	<p>If not already logged-in, then login at the MPS B.  <b>&lt;hostname&gt; console login: root</b>  <b>Password: &lt;password&gt;</b></p>
2. <input type="checkbox"/>	<p>Enter the epapconfig menu.</p>	<p>Execute the following Command:   <b># su - epapconfig</b></p>
3. <input type="checkbox"/>	<p>Main menu is displayed. Select Platform Menu.</p>	<pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    e   Exit   \-----/ </pre> <p>Enter Choice: 6</p>
4. <input type="checkbox"/>	<p>Platform menu is displayed. Select RTDB Backup.</p>	<pre> /-----EPAP Platform Menu-\ /-----\   1   Initiate Upgrade    -----    2   Reboot MPS    -----    3   MySQL Backup    -----    4   RTDB Backup    -----    5   Eject CD    -----    6   Halt MPS    -----    7   PDB Backup    -----    e   Exit   \-----/ </pre>

**Procedure 25: RTDB Database Backup**

		Enter Choice: 4
5. <input type="checkbox"/>	The Application software must be stopped.	<b>If the EPAP application software is running, you will be prompted to stop the software for the RTDB backup. Select with a “Y”.</b>  EPAP software is running. Stop it? [N]: <b>Y</b>
6. <input type="checkbox"/>	Menu will prompt for a “yes” to continue. Enter a <b>Y</b> .	Are you sure you want to backup the RTDB to /var/TKLC/appl/free/rtdbBackup_<hostname>_20030530151806.tar.gz? [N]: <b>Y</b>
7. <input type="checkbox"/>	While the backup is begin performed, the following output will be displayed to the screen.	Successfully started backup of RTDB. Status will be displayed on the GUI banner.  Press return to continue...
8. <input type="checkbox"/>	Exit this menu and return to the login prompt. Continue exiting until you get to the login prompt.	Enter Choice: <b>e</b>  Enter Choice: <b>e</b>
9. <input type="checkbox"/>	Monitor GUI banner.	Monitor the GUI banner. When the backup has completed successfully, continue to the next step.
10. <input type="checkbox"/>	Restart the EPAP Software.	Restart the EPAP application software.  <b># /etc/init.d/Epap start</b>
11. <input type="checkbox"/>	Use SFTP to transfer the backup file to a remote customer provided computer.	Using SFTP (secure-FTP), transfer the RTDB backup file to a remote, customer-provided computer. Enter “yes” when prompted if you want to continue to connect.  <b># cd /var/TKLC/epap/free</b>  <b># sftp &lt;IP address of remote computer&gt;</b> Connecting to <IP address of remote computer>... The authenticity of host '<IP address of remote computer>' can't be established. DSA key fingerprint is 58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '<IP address of remote computer>' (DSA) to the list of known hosts. root@<IP address of remote computer>'s password: sftp> cd <target directory> sftp> put rtdbBackup_<hostname>_20030530151806.tar.gz Uploading rtdbBackup_<hostname>_20030530151806.tar.gz to rtdbBackup_<hostname>_20030530151806.tar.gz sftp> bye  If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command

**Procedure 25: RTDB Database Backup**

		<pre># scp /var/TKLC/epap/free/&lt;rtdb backup file&gt; epapdev@mate:/var/TKLC/epap/free</pre>
12. <input type="checkbox"/>	Procedure complete.	Return to the procedure that you came here from.

## A.6 MySQL User Database Backup

### Procedure 26: MySQL User Database Backup

<b>S T E P #</b>	<p>This procedure performs a backup of the User database on the MPS server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR <u>UPGRADE ASSISTANCE</u>.</p>	
1. <input type="checkbox"/>	<p><b>MPS A:</b> Log in to the server as user “root”.</p>	<p><b>&lt;hostname&gt; console login: root</b> <b>Password: &lt;password&gt;</b></p>
2. <input type="checkbox"/>	<p>Enter the epapconfig menu.</p>	<p>Execute the following Command:</p> <p><b># su - epapconfig</b></p>
3. <input type="checkbox"/>	<p>Master menu is displayed. Select Platform Menu.</p>	<pre> /-----EPAP Configuration Menu-----\ /-----\   1   Display Configuration    -----    2   Configure Network Interfaces Menu    -----    3   Set Time Zone    -----    4   Exchange Secure Shell Keys    -----    5   Change Password    -----    6   Platform Menu    -----    7   Configure NTP Server    -----    8   PDB Configuration Menu    -----    9   Security    -----    e   Exit   \-----/  Enter Choice: 6         </pre>
4. <input type="checkbox"/>	<p>Platform menu is displayed. Select MySQL Backup.</p>	<pre> /-----EPAP Platform Menu-\ /-----\   1   Initiate Upgrade    -----    2   Reboot MPS    -----    3   MySQL Backup    -----    4   RTDB Backup    -----    5   Eject CD    -----    6   Halt MPS    -----    7   PDB Backup    -----    e   Exit           </pre>



**Procedure 26: MySQL User Database Backup**


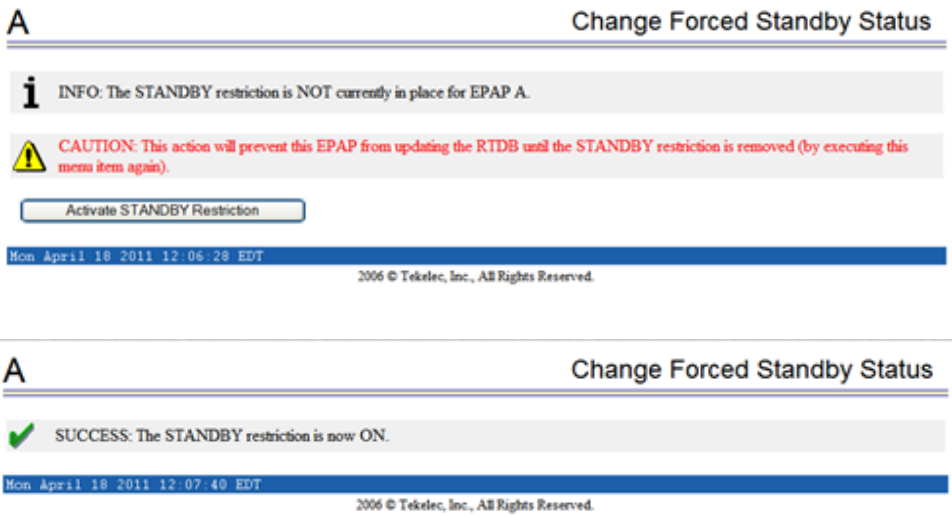
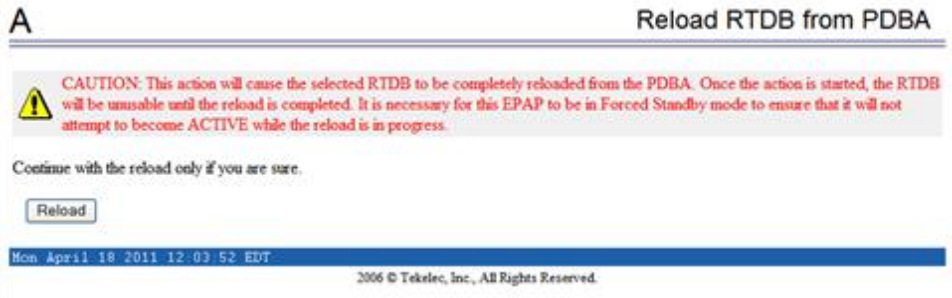
		<pre> \-----/  Enter Choice: 3         </pre>
5.	<input type="checkbox"/> You will then be prompted to verify that you want to backup the MySQL Database.	<pre> Are you sure you want to backup the MySQL database on MPS A? [N]:         </pre>
6.	<input type="checkbox"/> Type "Y" and press enter.	<pre> Press Y         </pre>
7.	<input type="checkbox"/> While the backup is begin performed, the following output will be displayed to the screen.	<pre> NPDB Backed up Successfully to /var/TKLC/appl/free/&lt;file name&gt;         </pre>
8.	<input type="checkbox"/> Exit this menu and return to the Unix login prompt. Continue exiting until you get to the Unix login prompt.	<pre> Enter Choice: e  Enter Choice: e         </pre>
9.	<input type="checkbox"/> Use SFTP to transfer the backup file to a remote customer provided computer.	<pre> Using SFTP (secure-FTP), transfer the NPDB backup file to a remote, customer- provided computer. Enter "yes" when prompted if you want to continue to connect.  # cd /var/TKLC/epap/free  # sftp &lt;IP address of remote computer&gt; Connecting to &lt;IP address of remote computer&gt;... The authenticity of host '&lt;IP address of remote computer&gt;' can't be established. DSA key fingerprint is 58:a5:7e:1b:ca:fd:1d:fa:99:f2:01:16:79:d8:b4:24. Are you sure you want to continue connecting (yes/no)? yes Warning: Permanently added '&lt;IP address of remote computer&gt;' (DSA) to the list of known hosts. root@&lt;IP address of remote computer&gt;'s password: sftp&gt; cd &lt;target directory&gt; sftp&gt; put npdbBackup_&lt;hostname&gt;_20030530151806.sql.gz Uploading npdbBackup_&lt;hostname&gt;_20030530151806.sql.gz to npdbBackup_&lt;hostname&gt;_20030530151806.sql.gz sftp&gt; bye  If no customer provided remote computer for backups exist, transfer the backup file to the mate using the following command  # scp /var/TKLC/epap/free/&lt;npdb backup file&gt; root@mate:/var/TKLC/epap/free         </pre>
10.	<input type="checkbox"/> Procedure complete.	<pre> Return to the procedure that you came here from.         </pre>

**A.7 RTDB Reload from PDBA**

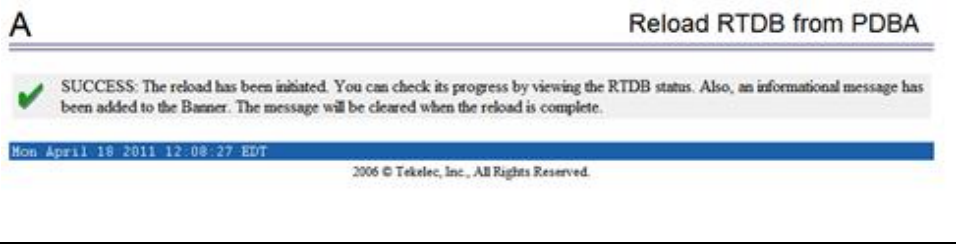

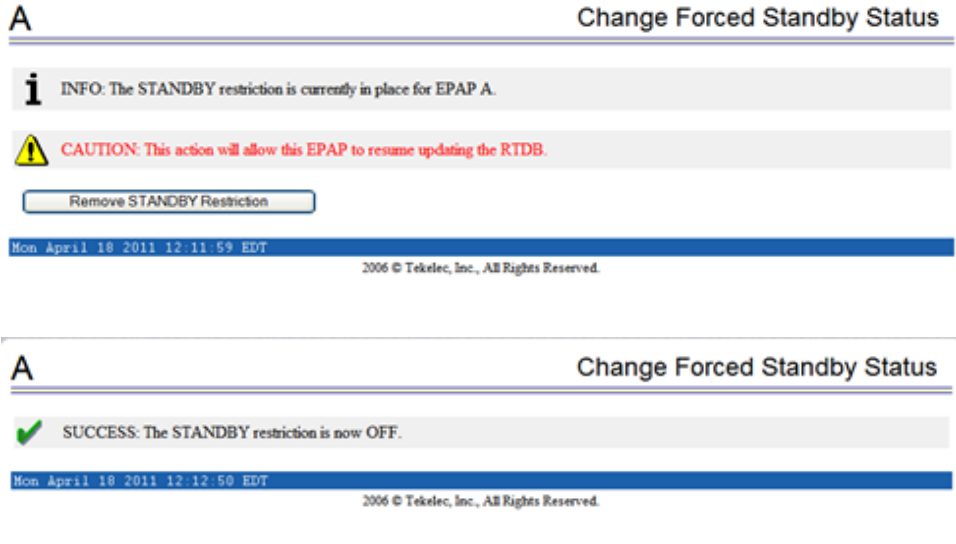
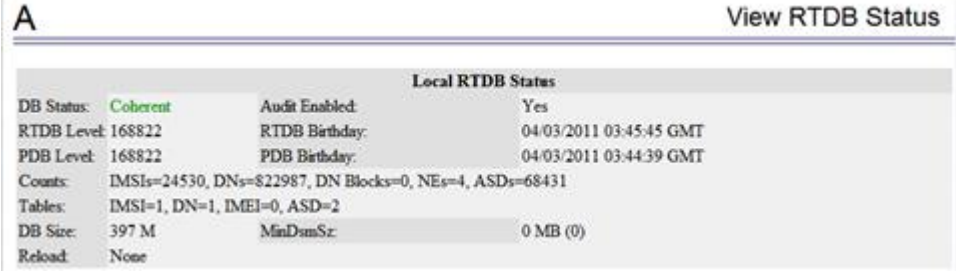
**Procedure 27: RTDB Reload from PDBA**

S	This procedure provides instructions to reload RTDB from PDBA.
---	--

**Procedure 27: RTDB Reload from PDBA**

<p><b>T E P #</b></p>	<p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number. IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR ASSISTANCE.</p>	
<p>1. <input type="checkbox"/></p>	<p><b>EPAP A:</b> Log in to the web GUI as user “uiadmin”.</p>	
<p>2. <input type="checkbox"/></p>	<p><b>EPAP A:</b> Put EPAP in Force Standby Mode.  Expand the “Maintenance” Folder.  Expand the “Force Standby” Folder.  Select the “Change Status” link..    Click on “Activate STANDBY Restriction” Button.</p>	
<p>3. <input type="checkbox"/></p>	<p><b>EPAP A:</b> Reload RTDB from PDBA.  Expand the “RTDB” Folder.  Expand the “Maintenance” Folder.  Select the “Reload from PDBA” link.  Click on the “Reload” Button.</p>	

**Procedure 27: RTDB Reload from PDBA**

	<p>Observe the "SUCCESS" Status.</p>	
<p>4. <input type="checkbox"/></p>	<p><b>EPAP A:</b> Wait for completion.</p> <p>Observe the GUI banner and wait for the RTDB Reload completion message before proceeding.</p>	
<p>5. <input type="checkbox"/></p>	<p><b>EPAP A:</b> Remove EPAP from Force Standby Mode.</p> <p>Expand the "Maintenance" Folder.</p> <p>Expand the "Force Standby" Folder.</p> <p>Select the "Change Status" link.</p> <p>Click on "Remove STANDBY Restriction" Button.</p>	
<p>6. <input type="checkbox"/></p>	<p><b>EPAP A:</b> Verify RTDB status.</p> <p>Expand the "RTDB" Folder.</p> <p>Select the "View RTDB Status" link.</p>	 <p>The RTDB Status must be Coherent.</p>
<p>7. <input type="checkbox"/></p>	<p>Procedure complete.</p>	<p>Return to the procedure that you came here from.</p>

## A.8 Manually removing the unneeded kernel modules from / partition

### Procedure 28: Manually removing the unneeded kernel modules from / partition

S T E P #	This procedure provides instructions to remove unneeded kernel modules from / partition	
	Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.	
	<b>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</b>	
1. <input type="checkbox"/>	MPS:  Log in to the server as the user "root".	Login: root  Password: <root_password>
2. <input type="checkbox"/>	Check the kernel modules available.	Execute the following command:  <b># rpm -q kernel</b>  Output should be in the form :  kernel-2.6.18-1.2849prere13.3.6_63.20.0.i686 kernel-2.6.18-194.11.3.e15prere14.2.0_70.64.0.i686 kernel-2.6.18-194.17.4.e15prere14.2.1_70.73.0.i686
3. <input type="checkbox"/>	Remove all the older kernels modules except for the two most recent.	Remove the older kernel modules, making sure to leave the two most recent kernels, using the command :  <b># rpm -e &lt; kernel-2.6.18-1.2849prere13.3.6_63.20.0.i686&gt;</b>  Note : The two most recent ones will be the last two in the list shown in previous step.
4. <input type="checkbox"/>	Run the Health check again to make sure that Server Disk space shortage error is gone.	Run the Health check again (Appendix A.1 from where this procedure has been called) to make sure that there won't be any  "Server Disk Space Shortage Error" in the output.  <b><u>PLEASE CONTACT THE TEKELEC CUSTOMER CARE CENTER (1-888-FOR-TKLC OR 1-888-367-8552; OR FOR INTERNATIONAL CALLERS 1-919-460-2150) AND ASK FOR UPGRADE ASSISTANCE.</u></b>
5. <input type="checkbox"/>	Procedure complete.	This Procedure is complete

## APPENDIX B. NON-CD UPGRADE/INSTALLATION INSTRUCTIONS

This procedure defines the steps to perform an upgrade or application installation using an ISO image of the CD rather than an actual CD.

### B.1 ISO Image Generation from CD Media

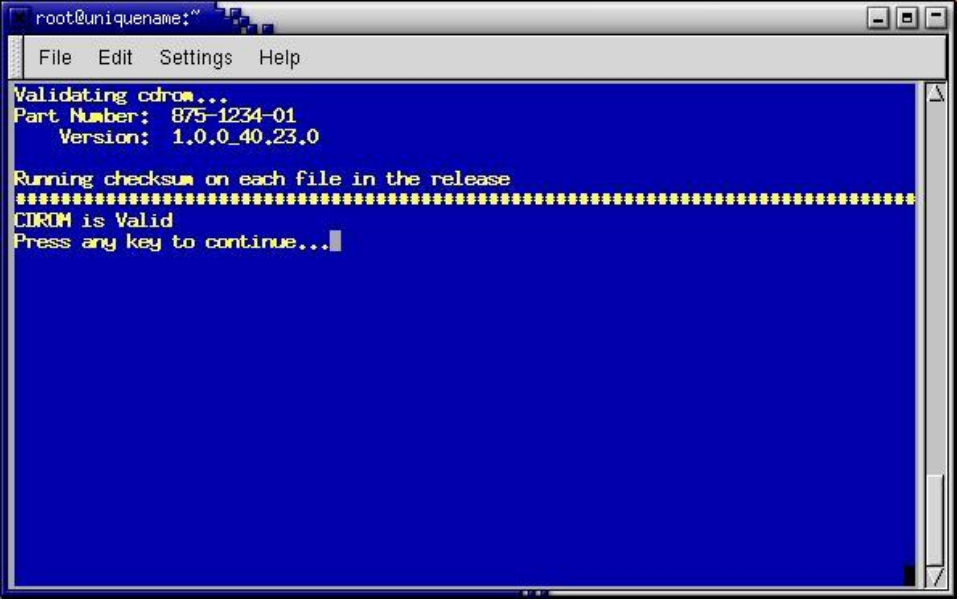
**Note:** This procedure cannot be executed on an E5-APP-B card.

#### Procedure 29: ISO Image generation from CD media

<b>S T E P #</b>	<p>This procedure provides instructions to generate an ISO image from a CD.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.</p>	
1. <input type="checkbox"/>	<b>MPS X:</b> Insert CD.	Insert media in CD-ROM tray
2. <input type="checkbox"/>	<b>MPS X:</b> Log in to the server as the “root” user.	<b>[hostname] consolelogin: root</b> <b>password: password</b>
3. <input type="checkbox"/>	<b>MPS X:</b> Run syscheck to make sure there are no errors.	<p>Execute the following command:</p> <pre># syscheck</pre> <p>The output should look like:</p> <pre>[root@hostname ~]# syscheck Running modules in class proc...   OK Running modules in class services...   OK Running modules in class system...   OK Running modules in class disk...   OK Running modules in class hardware...   OK Running modules in class net...   OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
4. <input type="checkbox"/>	<b>MPS X:</b> Verify ISO image doesn't already exist.	<p>Execute the following command to perform directory listing:</p> <pre># ls -al /var/TKLC/upgrade</pre> <p>The output should look like:</p> <pre>[root@hostname ~]# ls -al /var/TKLC/upgrade total 16 dr-xr-xr-x  2 root root 4096 Oct 22 16:31 . dr-xr-xr-x 21 root root 4096 Oct 18 13:40 ..</pre> <p>If an ISO image exists, remove it by executing the following command:</p> <pre># rm -f /var/TKLC/upgrade/&lt;ISO image&gt;</pre>
5. <input type="checkbox"/>	<b>MPS X:</b> Start platcfg utility by logging in as user “platcfg”.	Execute the following command to change the user: <pre># su - platcfg</pre>
6. <input type="checkbox"/>	<b>MPS X:</b> Select the Maintenance submenu.	On the Main Menu of the Platform Configuration Utility, select <b>Maintenance</b> and press <b>[ENTER]</b> .



Procedure 29: ISO Image generation from CD media

		
<p>11. <input type="checkbox"/></p>	<p><b>MPS X:</b> Exit platcfg.</p>	<p>Select Exit and press [ENTER] repeatedly until the “platcfg” utility terminates.</p> <pre> lqqqqqqqqqqqqqqqqqqqqqqqqqqqqqq Choose Upgrade Media Menu tqqqqqqqqqqqqqqqqqqqqqqqqqqqq * * /dev/hda - tklc_872-2218-101_Rev_A_140.19.0 * <b>Exit</b> * * qq                     </pre>
<p>12. <input type="checkbox"/></p>	<p><b>MPS X:</b> Verify space exists for ISO.</p>	<p>Execute the following command to verify the available disk space:</p> <pre># df -h /var/TKLC</pre> <p>The output should look like:</p> <pre>[root@hostname ~]# df -h /var/TKLC Filesystem      Size  Used Avail Use% Mounted on /dev/md8        4.0G   89M  3.7G   3% /var/TKLC</pre> <p>Verify that there is at least 620M in the Avail column. If not, clean up files until there is space available.</p> <p><b>CAUTION: Make sure you know what files you can remove safely before cleaning up. It is recommended that you only clean up files in the /var/TKLC/upgrade directory as this is a platform owned directory that should only contain ISO images. This directory should not be expected to contain images for any length of time as they can get purged. Contact Technical Services beforehand if removing files other than the /var/TKLC/upgrade directory as removing files is dangerous.</b></p>
<p>13. <input type="checkbox"/></p>	<p><b>MPS X:</b> Determine device name.</p>	<p>Execute the following command:</p> <pre># getCDROM</pre> <p>The example below shows a drive hda:</p> <pre>[root@hostname ~]# getCDROM Optiarc DVD RW AD-7590A hda Intel(R) RMM2 VDrive 2 scd0</pre>

**Procedure 29: ISO Image generation from CD media**

		Intel(R) RMM2 VDrive 3 scd1 Intel(R) RMM2 VDrive 4 scd2 Intel(R) RMM2 VDrive 1 scd3
<input type="checkbox"/>	<b>MPS X:</b> Copy media.	Copy media using device name from above step.  <b># dd if=/dev/&lt;dev&gt; of=/var/TKLC/upgrade/&lt;name&gt;.iso</b>  For the example above, substitute hda for <dev> and substitute an appropriate name such as 872-2433-101-15.0.0_150.17.0-EPAP-x86_64 for <name>.
<input type="checkbox"/>	<b>MPS X:</b> Verify ISO image exists.	Execute the following command to perform directory listing: <b># ls -al /var/TKLC/upgrade</b>  The output should look like: [root@hostname ~]# ls -al /var/TKLC/upgrade total 16 dr-xr-xr-x 2 root root 4096 Oct 22 16:31 . dr-xr-xr-x 21 root root 4096 Oct 18 13:40 .. -rw-r--r-- 1 root root 643852288 Oct 15 15:37 872-2433-101-15.0.0_150.17.0-EPAP-x86_64.iso  Repeat this procedure from step 13 if EPAP ISO file is not as expected.
<input type="checkbox"/>	<b>MPS X:</b> Logout from server.	Logout from the server by executing the following command:  <b># logout</b>
<input type="checkbox"/>	<b>MPS X:</b> Remove CD.	Remove media from CD-ROM tray.
<input type="checkbox"/>	<b>MPS X:</b> Validate ISO file.	Validate ISO file using procedure A.2.
<input type="checkbox"/>	Procedure complete.	This procedure is complete.

**B.2 ISO Image copy from USB Media**

**Note:** This procedure can be executed on an E5-APP-B card or a T1200 server.

**Assumption:** The USB media contains the desired EPAP ISO.

**Procedure 30: ISO Image copy from USB media**

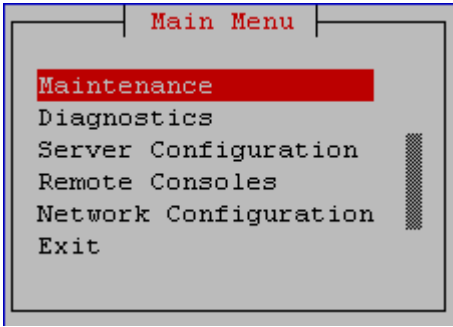
<b>S T E P #</b>	This procedure provides instructions to copy an ISO image from an USB media.  Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.  IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND ASK FOR UPGRADE ASSISTANCE.	
<input type="checkbox"/>	<b>1. MPS X:</b> Insert USB.	Insert media in USB drive
<input type="checkbox"/>	<b>2. MPS X:</b> Log in to the server as the “root” user.	<b>[hostname] console login: root</b> <b>password: password</b>
<input type="checkbox"/>	<b>3. MPS X:</b> Run syscheck to	Execute the following command:



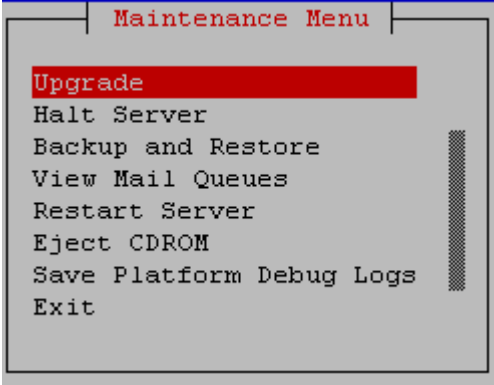
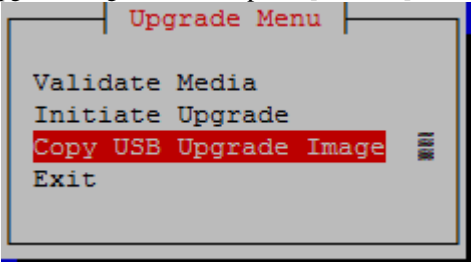
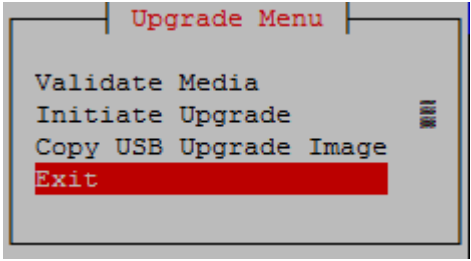
## Procedure 30: ISO Image copy from USB media

<input type="checkbox"/>	make sure there is no error.	<p><b># syscheck</b></p> <p>The output should look like:</p> <pre>[root@hostname ~]# syscheck Running modules in class proc...                                 OK Running modules in class services...                                 OK Running modules in class system...                                 OK Running modules in class disk...                                 OK Running modules in class hardware...                                 OK Running modules in class net...                                 OK LOG LOCATION: /var/TKLC/log/syscheck/fail_log</pre>
<input type="checkbox"/>	4. <b>MPS X:</b> Verify ISO image doesn't already exist.	<p>Execute the following command to perform directory listing:</p> <p><b># ls -al /var/TKLC/upgrade</b></p> <p>The output should look like:</p> <pre>[root@hostname ~]# ls -al /var/TKLC/upgrade total 16 dr-xr-xr-x  2 root root 4096 Oct 22 16:31 . dr-xr-xr-x 21 root root 4096 Oct 18 13:40 ..</pre> <p>If an ISO image exists, remove it by executing the following command:</p> <p><b># rm -f /var/TKLC/upgrade/&lt;ISO image&gt;</b></p>
<input type="checkbox"/>	5. <b>MPS X:</b> Delete unwanted ISOs from USB media.	<p>Execute the following command to create a directory to mount the USB media:</p> <p><b># mkdir -p /mnt/usb</b></p> <p>Execute the following command to get the USB drive name:</p> <p><b># fdisk -l  grep FAT</b></p> <p>The output should look like:</p> <pre>/dev/sdc1 *                1                812                831472                6 FAT16</pre> <p>Execute the following command to mount the USB media using the USB drive name from the output above:</p> <p><b># mount /dev/sdc1 /mnt/usb</b></p> <p>Execute the following command to perform directory listing and verify the file name format is as expected:</p> <p><b># ls -al /mnt/usb</b></p> <p>The output should look like:</p> <pre>[root@hostname ~]# # ls -al /mnt/usb total 629400 dr-xr-xr-x  2 root root          4096 Oct 16 13:33 . dr-xr-xr-x 22 root root          4096 Oct 16 13:55 .. -rw-r--r--  1 root root 643852288 Oct 15 15:37 872-2433-101-15.0.0_150.17.0-EPAP-x86_64.iso</pre> <p>Only one ISO file should be listed, if additional files are listed, execute the following</p>

## Procedure 30: ISO Image copy from USB media

		<p>command to remove unwanted EPAP ISOs:  <code># rm -f /mnt/usb/&lt;ISO_NAME&gt;.iso</code></p> <p>For e.g.,  <code># rm -f /mnt/usb/872-2433-101-15.0.0_150.15.0-EPAP-x86_64.iso</code></p> <p>Execute the following command to unmount the USB media:  <code># umount /mnt/usb</code></p>
6. <input type="checkbox"/>	<b>MPS X:</b> Verify space exists for ISO.	<p>Execute the following command to verify the available disk space:  <code># df -h /var/TKLC</code></p> <p>The output should look like:  <pre>[root@hostname ~]# df -h /var/TKLC Filesystem      Size  Used Avail Use% Mounted on /dev/md8        4.0G   89M  3.7G   3% /var/TKLC</pre></p> <p>Verify that there is at least 620M in the Avail column. If not, clean up files until there is space available.</p> <p><b>CAUTION: Make sure you know what files you can remove safely before cleaning up. It is recommended that you only clean up files in the /var/TKLC/upgrade directory as this is a platform owned directory that should only contain ISO images. This directory should not be expected to contain images for any length of time as they can get purged. Contact Technical Services beforehand if removing files other than the /var/TKLC/upgrade directory as removing files is dangerous.</b></p>
7. <input type="checkbox"/>	<b>MPS X:</b> Start platcfg utility by logging in as user "platcfg".	Execute the following command to change the user: <code># su - platcfg</code>
8. <input type="checkbox"/>	<b>MPS X:</b> Select the Maintenance submenu.	<p>On the Main Menu of the Platform Configuration Utility, select <b>Maintenance</b> and press [ENTER].</p> 
9. <input type="checkbox"/>	<b>MPS X:</b> Select the Upgrade submenu.	Select the <b>Upgrade menu</b> and press [ENTER].

**Procedure 30: ISO Image copy from USB media**

		
<p>10.</p>	<p><b>MPS X:</b> Select Copy USB Upgrade Image submenu.</p>	<p>Select the Copy USB Upgrade Image menu and press [ENTER].</p> 
<p>11.</p>	<p><b>MPS X:</b> The EPAP ISO will be copied from the USB media to /var/TKLC/upgrade.  Press any key to return to Upgrade menu.</p>	<p>Copying /mnt/upgrade/872-2433-101-15.0.0_150.17.0-EPAP-x86_64.iso...</p> <p>PRESS ANY KEY TO RETURN TO THE PLATCFG MENU.</p>
<p>12.</p>	<p><b>MPS X:</b> Exit platcfg.</p>	<p>Select Exit and press [ENTER] repeatedly until the “platcfg” utility terminates.</p> 
<p>13.</p>	<p><b>MPS X:</b> Verify ISO image exists.</p>	<p>Execute the following command to perform directory listing: # ls -al /var/TKLC/upgrade</p> <p>The output should look like: [root@hostname ~]# ls -al /var/TKLC/upgrade total 16 dr-xr-xr-x 2 root root 4096 Oct 22 16:31 . dr-xr-xr-x 21 root root 4096 Oct 18 13:40 .. -rw-r--r-- 1 root root 643852288 Oct 15 15:37 872-2433-101-15.0.0_150.17.0-EPAP-x86_64.iso</p>

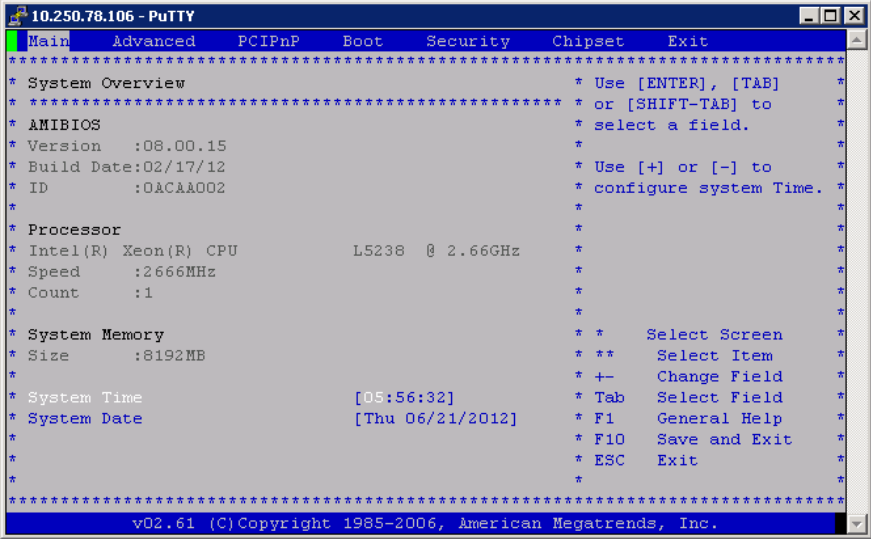
**Procedure 30: ISO Image copy from USB media**

		Repeat this procedure from step 5 if EPAP ISO file is not as expected.
14. <input type="checkbox"/>	<b>MPS X: Logout from server.</b>	Logout from the server by executing the following command:  # logout
15. <input type="checkbox"/>	<b>MPS X: Remove USB media.</b>	Remove media from USB drive.
16. <input type="checkbox"/>	<b>MPS X: Validate ISO file.</b>	Validate ISO file using procedure A.2.
17. <input type="checkbox"/>	<b>Procedure complete.</b>	This procedure is complete.

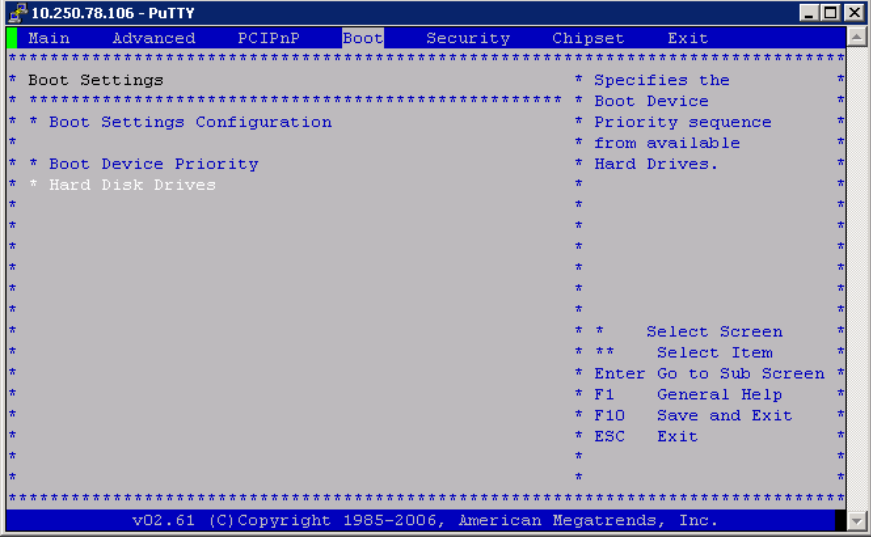
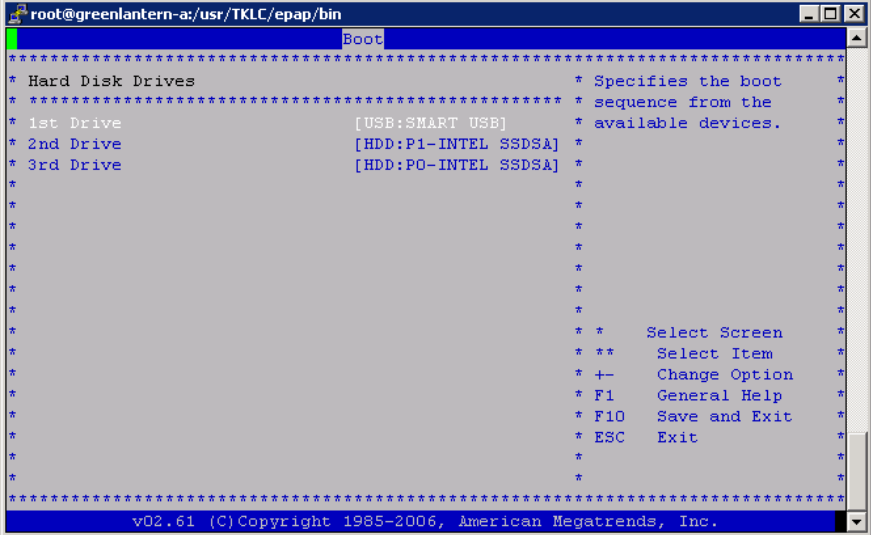
### APPENDIX C. IPM MPS SERVER WITH TPD 5.5

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

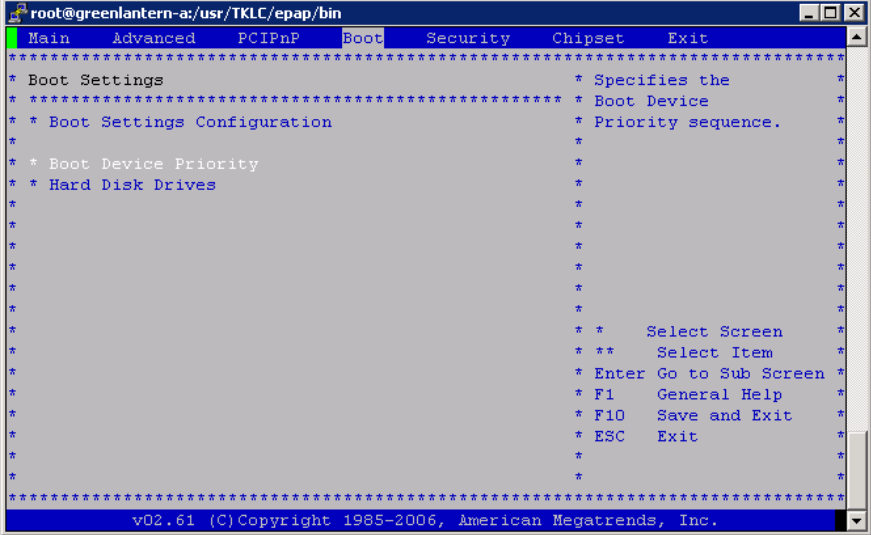
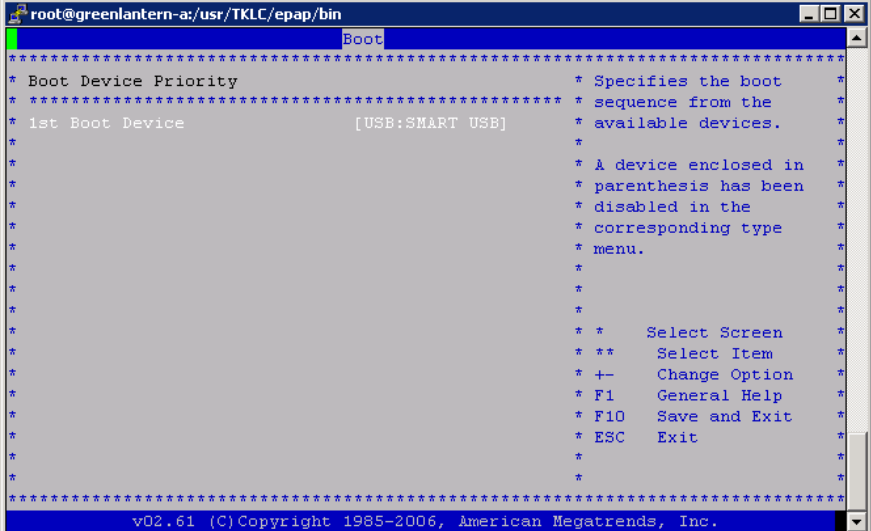
#### Procedure 31: IPM with TPD 5.5

<b>S T E P #</b>	<p>This procedure will remove the EPAP application and all the data from the server.</p> <p>Check off (✓) each step as it is completed. Boxes have been provided for this purpose under each step number.</p> <p>IF THIS PROCEDURE FAILS, CONTACT TEKELEC TECHNICAL SERVICES AND <b>ASK FOR UPGRADE ASSISTANCE.</b></p>	
1. <input type="checkbox"/>	<p><b>MPS X:</b> Insert TPD 5.5 DVD into MPS X (T1200 server) Insert TPD 5.5 USB media into the USB port (E5-APP-B)</p>	
2. <input type="checkbox"/>	<p><b>MPS X:</b> If necessary, log in to the server as the user “root”</p>	<p>If not already logged in to the MPS server, then login as user “root”.</p> <p><b>console login: root</b> <b>password: &lt;root_password&gt;</b></p>
3. <input type="checkbox"/>	<p><b>MPS X:</b> Reboot server</p>	<p><b># reboot</b></p> <p>Skip to step 11 if IPMING a T1200 Server. On E5-APP-B server continue with the next step.</p>
4. <input type="checkbox"/>	<p><b>MPS X:</b> Press ‘del’ key to enter the BIOS</p>	
5. <input type="checkbox"/>	<p><b>MPS X:</b> Select <i>Boot</i> → <i>Hard Disk Drives</i> option</p>	

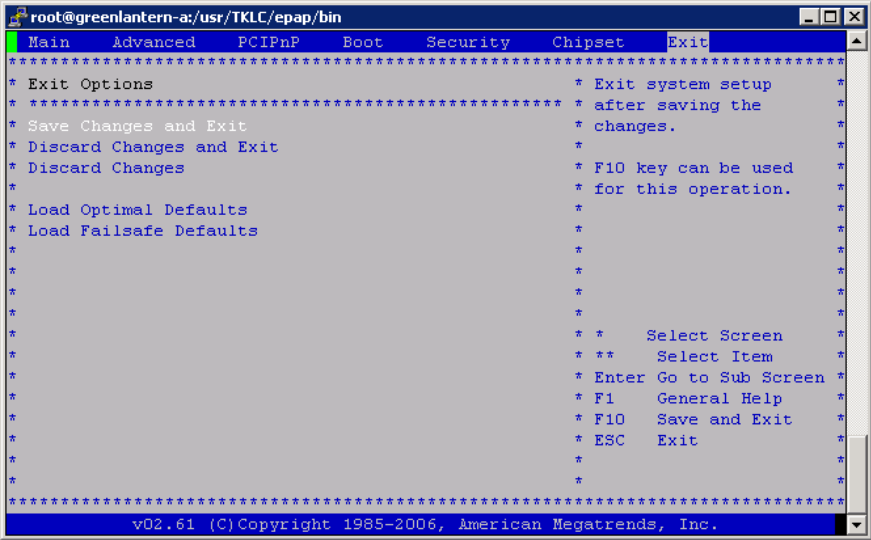
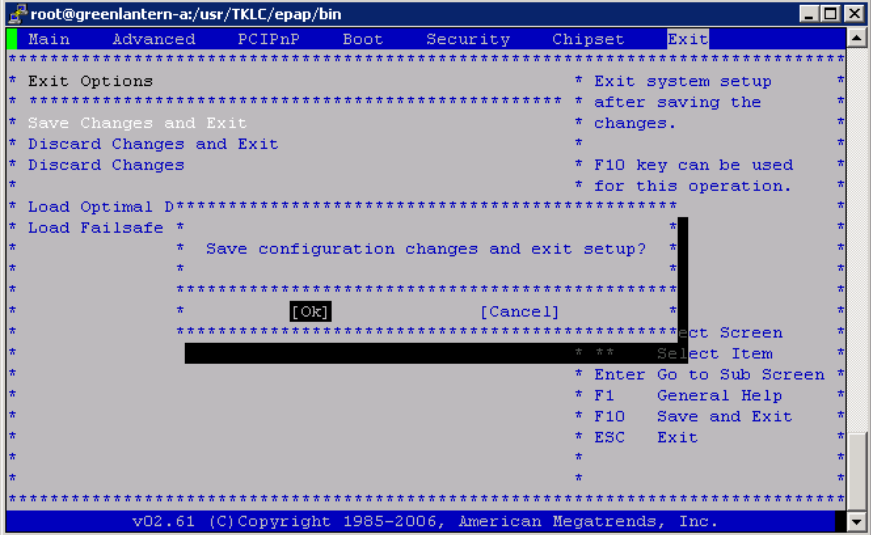
Procedure 31: IPM with TPD 5.5

		 <p>A screenshot of a BIOS boot settings menu. The title bar reads '10.250.78.106 - PuTTY'. The menu has tabs for 'Main', 'Advanced', 'PCIPnP', 'Boot', 'Security', 'Chipset', and 'Exit'. The 'Boot' tab is selected. The screen displays 'Boot Settings' and 'Boot Settings Configuration'. It lists 'Boot Device Priority' and 'Hard Disk Drives'. On the right side, it explains that this specifies the boot device and priority sequence from available hard drives. At the bottom, it shows navigation options: Select Screen, Select Item, Go to Sub Screen, General Help, Save and Exit, and Exit. The version 'v02.61 (C) Copyright 1985-2006, American Megatrends, Inc.' is visible at the bottom.</p>
<p>6. <input type="checkbox"/></p>	<p><b>MPS X:</b> Press 'Enter' key and select USB as the 1<sup>st</sup> Drive</p>	 <p>A screenshot of a BIOS hard disk drives menu. The title bar reads 'root@greenlantern-a:/usr/TKLC/epap/bin'. The menu has a 'Boot' tab selected. It displays 'Hard Disk Drives' and lists three drives: '1st Drive [USB:SMART USB]', '2nd Drive [HDD:P1-INTEL SSDSA]', and '3rd Drive [HDD:P0-INTEL SSDSA]'. On the right side, it explains that this specifies the boot sequence from available devices. At the bottom, it shows navigation options: Select Screen, Select Item, Change Option, General Help, Save and Exit, and Exit. The version 'v02.61 (C) Copyright 1985-2006, American Megatrends, Inc.' is visible at the bottom.</p>
<p>7. <input type="checkbox"/></p>	<p><b>MPS X:</b> Press 'Esc' key and select Boot Device Priority</p>	

Procedure 31: IPM with TPD 5.5

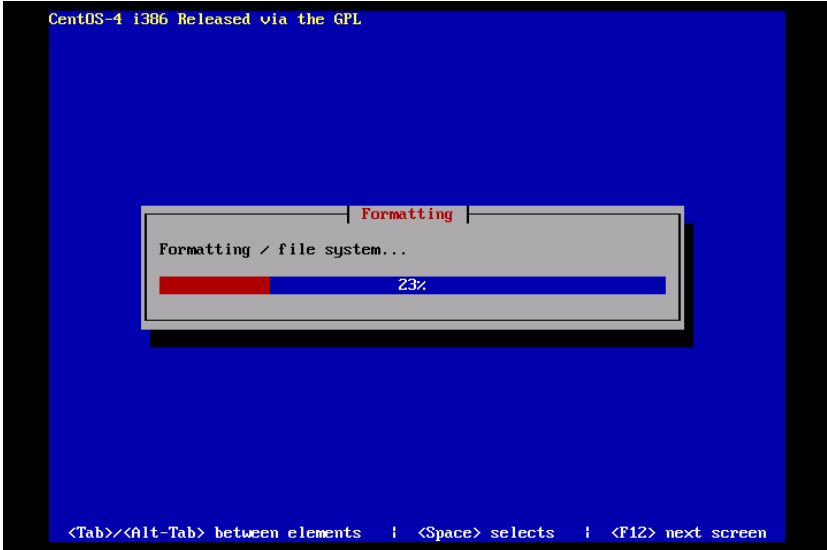
		 <p>The screenshot shows the BIOS boot menu with the 'Boot' tab selected. The 'Boot Settings Configuration' option is highlighted. The menu includes options for Boot Device Priority and Hard Disk Drives. A help text on the right explains that this option specifies the boot device and priority sequence. Navigation instructions at the bottom include: Select Screen, Select Item, Go to Sub Screen, General Help, Save and Exit, and Exit.</p>
<p>8. <input type="checkbox"/></p>	<p><b>MPS X:</b> Verify that the 1<sup>st</sup> Boot Device is set to USB.</p>	 <p>The screenshot shows the BIOS boot menu with the 'Boot' tab selected. The '1st Boot Device' is set to '[USB:SMART USB]'. The help text on the right explains that this option specifies the boot sequence from the available devices. A warning states that a device enclosed in parentheses has been disabled in the corresponding type menu. Navigation instructions at the bottom include: Select Screen, Select Item, Change Option, General Help, Save and Exit, and Exit.</p>
<p>9. <input type="checkbox"/></p>	<p><b>MPS X:</b> Press 'Esc' key and select <i>Exit → Save Changes and Exit</i> option</p>	

Procedure 31: IPM with TPD 5.5

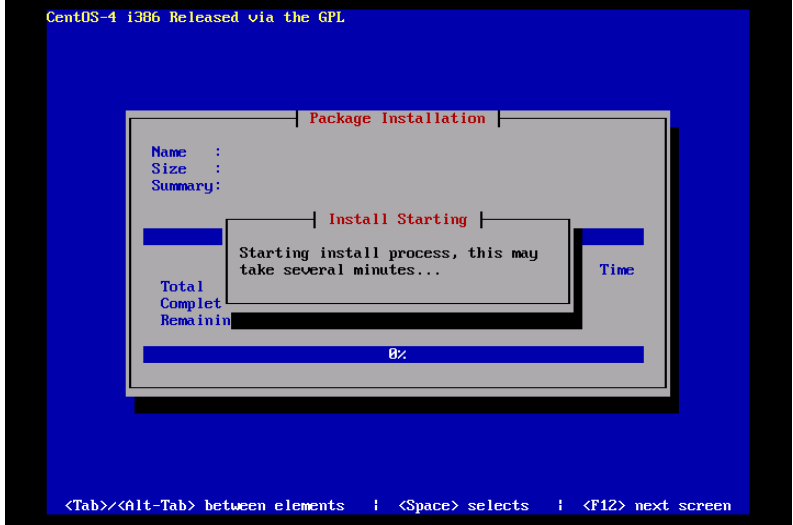
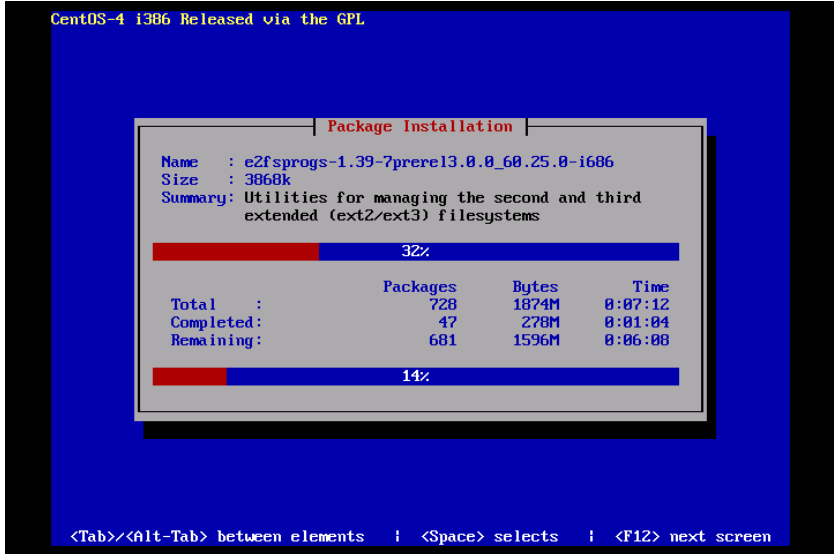
		
<p>10. <input type="checkbox"/></p>	<p><b>MPS X:</b> Select [OK] to save the configuration changes.</p> <p>The server will reboot and TPD boot prompt will appear.</p>	
<p>11. <input type="checkbox"/></p>	<p><b>MPS X:</b> Start the IPM process by entering the TPD command at the boot prompt.</p>	<p><b>boot: TPD scrub</b></p>
<p>12. <input type="checkbox"/></p>	<p><b>MPS X:</b> After entering the command to start the installation, the Linux kernel will load, as in the screenshot at right.</p>	




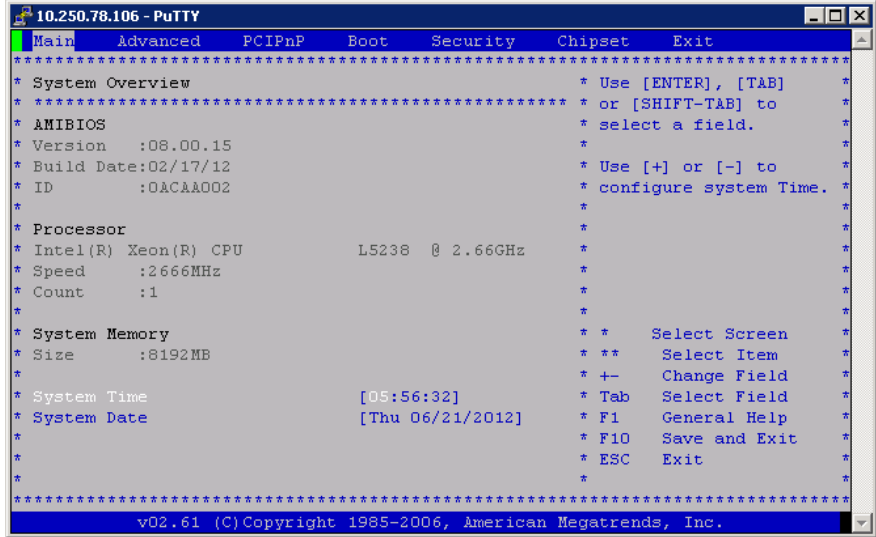
Procedure 31: IPM with TPD 5.5

		<pre> - To install with software RAID, type: TPD - To install on first device found, type: TPDnoraid - To install using the minimum disk space, type: TPDcompact - To install to one disk with blade partition config, type: TPDblade - To enable rescue mode, type: rescue - To install using a monitor and local keyboard, add: console=tty8 - To create partitions (and RAID devices, if appropriate) that are not used by the platform or included in the vgrout volume group, use the reserved option. E.g. to reserve 64MB and 1GB devices, add: reserved=64M,1G - To limit the installation to certain drive(s), use the drives option. E.g. to install to the 1st and 3rd SCSI drives, add: drives=sda,sdc  boot: TPD scrub Loading vmlinuz..... Loading initrd.img..... Ready. Uncompressing Linux... Ok, booting the kernel.         </pre>
<p>13. <input type="checkbox"/></p>	<p><b>MPS X:</b> After a few seconds, additional messages will begin scrolling by on the screen as the Linux kernel boots, and then the drive formatting and file system creation steps will begin.</p>	 <p>The screenshot shows a blue terminal window titled 'CentOS-4 1386 Released via the GPL'. In the center, there is a grey box with a white border containing the text 'Formatting / file system...' and a progress bar. The progress bar is partially filled with red, and the number '23%' is displayed to its right. At the bottom of the terminal window, there are instructions: '&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements   &lt;Space&gt; selects   &lt;F12&gt; next screen'.</p>
<p>14. <input type="checkbox"/></p>	<p><b>MPS X:</b> Once the drive formatting and file system creation steps are complete, the screen at right will appear indicating that the package installation step is about to begin.</p>	

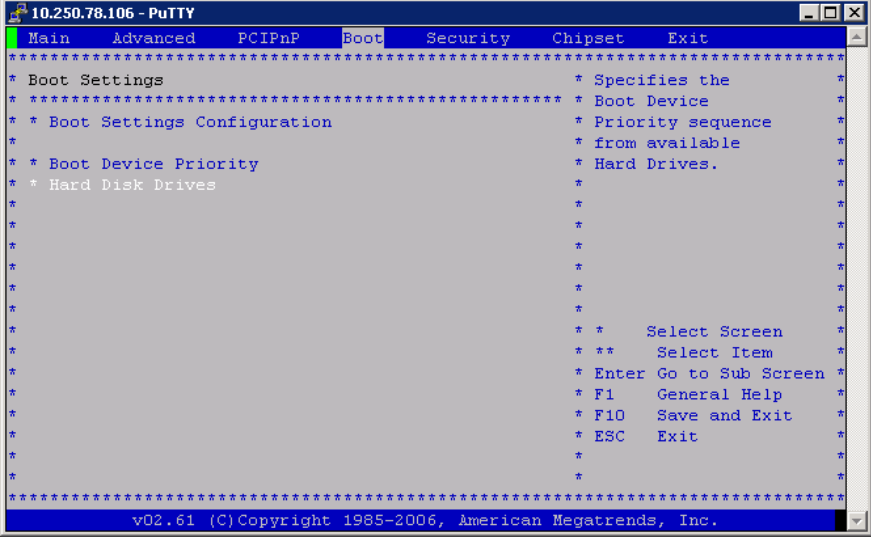
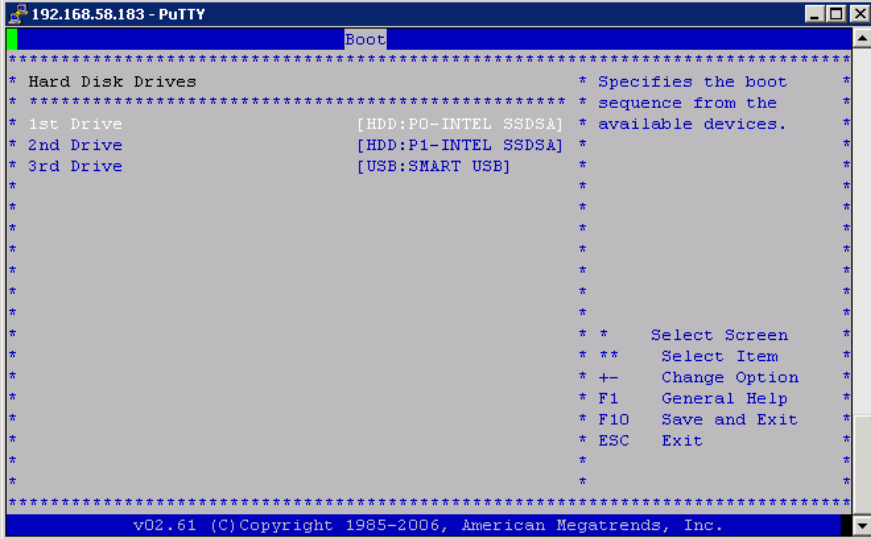
Procedure 31: IPM with TPD 5.5

		 <p>The screenshot shows a terminal window titled 'CentOS-4 i386 Released via the GPL'. A window titled 'Package Installation' is open. Inside it, a smaller window titled 'Install Starting' is displayed with the text: 'Starting install process, this may take several minutes...'. Below this, there are labels for 'Total', 'Completed', and 'Remaining' with corresponding progress bars. The progress bars show 0% completion. At the bottom of the terminal window, there are navigation instructions: '&lt;Tab&gt;/&lt;Alt-Tab&gt; between elements   &lt;Space&gt; selects   &lt;F12&gt; next screen'.</p>																
<p>15. <input type="checkbox"/></p>	<p><b>MPS X:</b> After a few minutes, you will see a screen similar to that at right, showing the status of the package installation step. For each package, there will be a status bar at the top indicating how much of the package has been installed, with a cumulative status bar at the bottom indicating how many packages remain. In the middle, you will see text statistics indicating the total number of packages, the number of packages installed, the number remaining, and current and projected time estimates.</p>	 <p>The screenshot shows the same terminal window. The 'Package Installation' window now displays detailed statistics for a package named 'e2fsprogs-1.39-7prere13.0.0_60.25.0-i686'. It shows a size of 3868k and a summary: 'Utilities for managing the second and third extended (ext2/ext3) filesystems'. There are two progress bars: a top one for the current package at 32% and a bottom cumulative one at 14%. In the center, a table provides summary statistics:</p> <table border="1" data-bbox="649 1155 1218 1302"> <thead> <tr> <th></th> <th>Packages</th> <th>Bytes</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>Total :</td> <td>728</td> <td>1874M</td> <td>0:07:12</td> </tr> <tr> <td>Completed:</td> <td>47</td> <td>278M</td> <td>0:01:04</td> </tr> <tr> <td>Remaining:</td> <td>681</td> <td>1596M</td> <td>0:06:08</td> </tr> </tbody> </table> <p>The navigation instructions at the bottom are the same as in the previous screenshot.</p>		Packages	Bytes	Time	Total :	728	1874M	0:07:12	Completed:	47	278M	0:01:04	Remaining:	681	1596M	0:06:08
	Packages	Bytes	Time															
Total :	728	1874M	0:07:12															
Completed:	47	278M	0:01:04															
Remaining:	681	1596M	0:06:08															
<p>16. <input type="checkbox"/></p>	<p><b>MPS X:</b> Once all the packages have been successfully installed, the screen at right will appear letting you know the installation process is complete.</p>																	

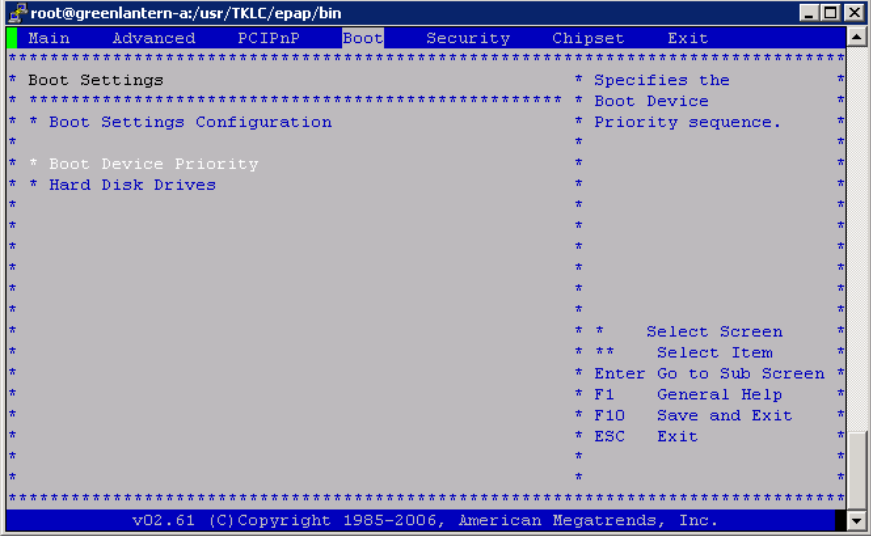
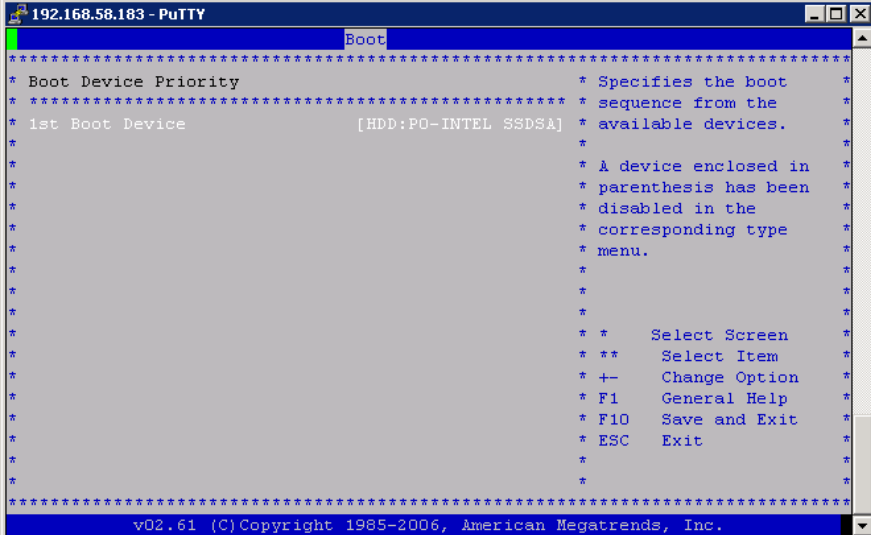
Procedure 31: IPM with TPD 5.5

<p>On T1200 server remove the installation media (DVD) and press &lt;ENTER&gt; to reboot the system. Skip to step 24.</p> <p>On E5-APP-B server remove the installation media (USB) and press &lt;ENTER&gt; to reboot the system and continue with the next step.</p>	
<p>17. <input type="checkbox"/> <b>MPS X:</b> Press 'del' key to enter the BIOS</p>	
<p>18. <input type="checkbox"/> <b>MPS X:</b> Select <i>Boot</i> → <i>Hard Disk Drives</i> option</p>	

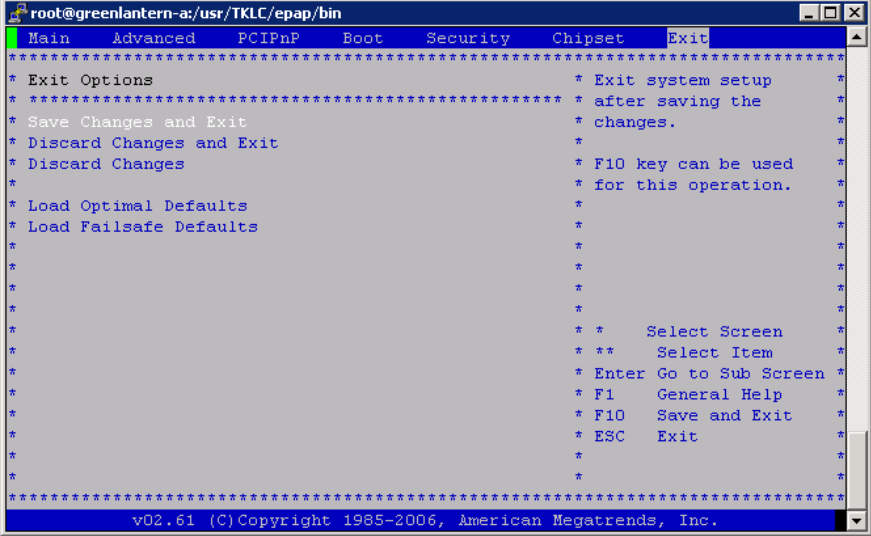
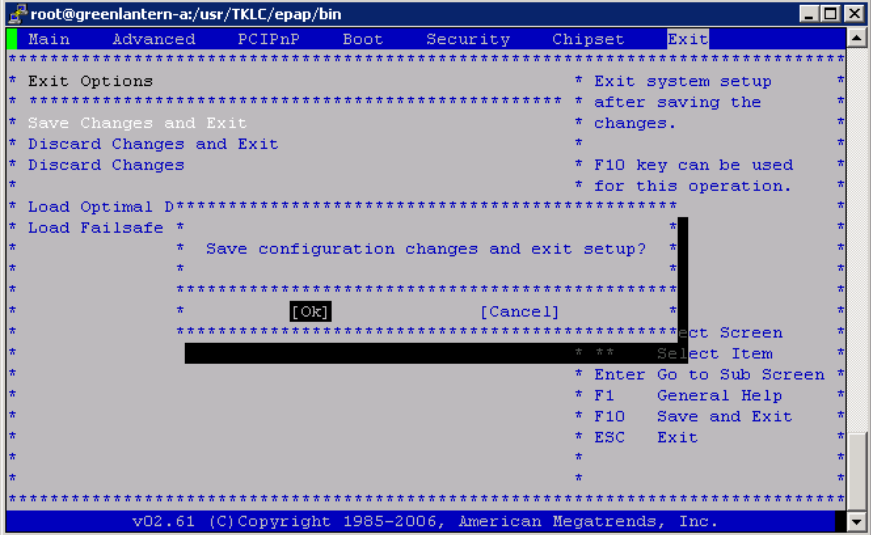
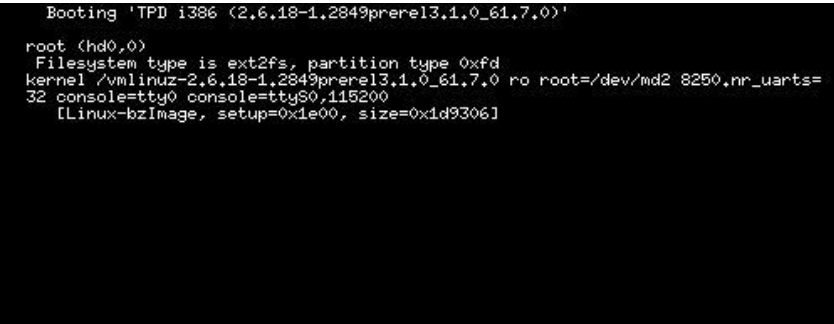
Procedure 31: IPM with TPD 5.5

		
<p>19. <input type="checkbox"/></p>	<p><b>MPS X:</b> Press 'Enter' key and select HDD:P0 as the 1<sup>st</sup> Drive</p>	
<p>20. <input type="checkbox"/></p>	<p><b>MPS X:</b> Press 'Esc' key and select Boot Device Priority</p>	

Procedure 31: IPM with TPD 5.5

		
<p>21. <input type="checkbox"/></p>	<p><b>MPS X:</b> Verify that the 1<sup>st</sup> Boot Device is set to HDD:P0.</p>	
<p>22. <input type="checkbox"/></p>	<p><b>MPS X:</b> Press 'Esc' key and select <i>Exit</i> → <i>Save Changes and Exit</i> option</p>	

Procedure 31: IPM with TPD 5.5

		 <pre> root@greenlantern-a:/usr/TKLC/epap/bin Main  Advanced  PCIPnP  Boot  Security  Chipset  Exit ***** * Exit Options                                     * Exit system setup * * **** after saving the ****                       * * Save Changes and Exit                          * changes.         * * Discard Changes and Exit                       *                * * Discard Changes                                * F10 key can be used * *  * for this operation.* * Load Optimal Defaults                         *                * * Load Failsafe Defaults                        *                * *  *                * *  *                * *  *                * *  *                * * * Select Screen                               * * ** Select Item                               * * Enter Go to Sub Screen                       * * F1 General Help                             * * F10 Save and Exit                           * * ESC Exit                                    * *  * ***** v02.61 (C)Copyright 1985-2006, American Megatrends, Inc.     </pre>
<p>23. <input type="checkbox"/></p>	<p><b>MPS X:</b>          Select [OK] to save the configuration changes. The server will reboot.</p> <p>Remove USB media from USB drive.</p>	 <pre> root@greenlantern-a:/usr/TKLC/epap/bin Main  Advanced  PCIPnP  Boot  Security  Chipset  Exit ***** * Exit Options                                     * Exit system setup * * **** after saving the ****                       * * Save Changes and Exit                          * changes.         * * Discard Changes and Exit                       *                * * Discard Changes                                * F10 key can be used * *  * for this operation.* * Load Optimal Defaults                         *                * * Load Failsafe Defaults                        *                * * * Save configuration changes and exit setup? * * ****                                     * * [Ok] [Cancel]                             * * ****                                     * * * Select Screen                               * * ** Select Item                               * * Enter Go to Sub Screen                       * * F1 General Help                             * * F10 Save and Exit                           * * ESC Exit                                    * *  * ***** v02.61 (C)Copyright 1985-2006, American Megatrends, Inc.     </pre>
<p>24. <input type="checkbox"/></p>	<p><b>MPS X:</b>          After a few minutes, several messages will appear about each of the Ethernet ports in the system, and message printed by the boot loader, indicating that it is booting the new IPM load.</p>	 <pre> Booting 'TPD i386 (2.6.18-1.2849prere13.1.0_61.7.0)' root (hd0,0) Filesystem type is ext2fs, partition type 0xfd kernel /vmlinuz-2.6.18-1.2849prere13.1.0_61.7.0 ro root=/dev/md2 8250.nr_uaarts= 32 console=tty0 console=ttyS0,115200 [Linux-bzImage, setup=0x1e00, size=0x1d9306]     </pre>

**Procedure 31: IPM with TPD 5.5**

25. <input type="checkbox"/>	<b>MPS X:</b> Log in to the server as the user "root"	<b>console login: root</b> <b>password: &lt;root_password&gt;</b>
26. <input type="checkbox"/>	<b>MPS X:</b> Verify that the platform revision is same as the TPD DVD or ISO used.	<b># getPlatRev</b> 5.5.0-75.x.0
27. <input type="checkbox"/>	<b>Procedure complete.</b>	Return to the procedure that you came here from.

APPENDIX D. SWOPS SIGN OFF.

**Discrepancy List**

Date	Test Case	Description of Failures and/or Issues. Any CSR's / RMA's issued during Acceptance. Discrepancy	Resolution and SWOPS Engineer Responsible	Resolution Date:



## APPENDIX E. CUSTOMER SIGN OFF

### Sign-Off Record

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

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

Sign your name, showing approval of this procedure, and email this page and the above completed Table to Tekelec, email: [upgrades@tekelec.com](mailto:upgrades@tekelec.com).

Customer: Company Name: \_\_\_\_\_ Date: \_\_\_\_\_

Site: Location: \_\_\_\_\_

Customer:(Print) \_\_\_\_\_ Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Start Date: \_\_\_\_\_

Completion Date: \_\_\_\_\_

This procedure has been approved by the undersigned. Any deviations from this procedure must be approved by both Tekelec and the customer representative. A copy of this page should be given to the customer for their records. The SWOPS supervisor will also maintain a signed copy of this completion for future reference.

Tekelec Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Customer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## APPENDIX F. ACCESSING TEKELEC'S CUSTOMER SUPPORT SITE

Access to the Tekelec's Customer Support site is restricted to current Tekelec customers. This section describes how to log into Tekelec's Customer Support site and how to locate upgrade procedures. Viewing these files requires Adobe Acrobat Reader.

1. Go to Tekelec's Customer Support login page at <https://support.tekelec.com/index.asp>
2. Enter your assigned username and chosen password and click **Login**.

**Or**, if you do not have access to the Customer Support site, click **Need an Account?**  
Follow instructions on the screen.

**Note: After 20 minutes of inactivity, you will be logged off, and you must repeat this step to regain access.**

3. After successful login, select a product from the Product Support drop-down menu.
4. Select a release number from the Product Support Release drop-down menu.
5. Locate the Upgrade Procedures section.
6. To open the procedure in the same window, click the procedure name. To open the procedure in a new window, right-click the procedure name and select **Open in New Window**.
7. To download the procedure, right-click the procedure name and select **Save Target As**.