Oracle® Communications EAGLE Database Administration - System Management User's Guide



Release 46.9 F27976-02 March 2021

ORACLE

Oracle Communications EAGLE Database Administration - System Management User's Guide, Release 46.9

F27976-02

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- For Non-technical issues such as registration or assistance with My Oracle Support, select **2**.
- For Hardware, Networking and Solaris Operating System Support, select **3**.

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

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What's New in This Guide

Release 46.9.1 - March 2021

This section introduces the documentation updates for Release 46.9.1 in Oracle Communications EAGLE.

• Removed slan and stplan instances from the guide due to the discontinued support of the stplan application in EAGLE.



1 Introduction

Chapter 1, Introduction, contains general information about the database and the organization of this manual.

Overview

Database Administration – System Management User's Guide describes the procedures used to manage and configure these items.

- EAGLE's database and GPLs
- The date and time
- User **ID**s and passwords
- Terminal configuration
- Shelves
- SS7 LIMs
- Security Log
- Unauthorized Use Warning Message
- UIM Thresholds
- MCPMs, IP links, and FTP servers for the Measurements Platform
- IPSMs for the IP User Interface (Telnet) feature
- Configuring the Network Security Options
- Configuring the Restore Device State Option
- Configuring the Frame Power Alarm Threshold
- SEAS over IP Configuration
- Using PuTTY or OpenSSH to set up a secure telnet connection to the EAGLE.

Note:

Database administration privileges are password restricted. Only those persons with access to the command class "Database Administration" can execute the administrative functions. Other command classes and the commands allowed by those classes are listed in the *Commands User's Guide*.

Throughout this manual, these terms are used to refer to either the original card or the EPM-B version or other replacement version of the card unless one of the card types is specifically required.

• E5-ENET - the original E5-ENET or the E5-ENET-B card



- E5-E1T1 the original E5-E1T1 or the E5-E1T1-B card
- E5-ATM the original E5-ATM or the E5-ATM-B card
- E5-IPSM the original E5-IPSM or the E5-ENET-B card that is running the IPSHC GPL
- E5-SM4G the original E5-SM4G or the E5-SM8G-B card (not an EPM-B card)
- MCPM the original MCPM or the E5-MCPM-B card

Scope and Audience

This manual is intended for database administration personnel or translations personnel responsible for managing the items shown in the Overview section.

Documentation Admonishments

Admonishments are icons and text throughout this manual that alert the reader to assure personal safety, to minimize possible service interruptions, and to warn of the potential for equipment damage.

lcon	Description
	Danger:
	(This icon and text indicate the possibility of personal injury.)
DANGER	
\wedge .	Warning:
WARNING	(This icon and text indicate the possibility of equipment damage.)
\land	Caution:
	(This icon and text indicate the possibility of service interruption.)
∧	Topple:
TOPPLE	(This icon and text indicate the possibility of personal injury and equipment damage.)

Table 1-1 Admonishments

Manual Organization

Throughout this document, the terms database and system software are used. **Database** refers to all data that can be administered by the user, including shelves, cards, links, routes, global title translation tables, and gateway screening tables. System software refers to data that cannot be administered by the user, including generic program loads (**GPL**s).

This document is organized into these sections:



Introduction contains general information about the database and the organization of this manual.

Database Management Procedures describes the different options for managing the database, such as backing up data and copying database tables from one disk to another, and provides procedures for tasks associated with database applications.

GPL Management Procedures describes the procedures used for managing the system data (GPLs) on the EAGLE.

System Administration Procedures describes the procedures used to administer the items shown in the Introduction.

SEAS Over IP Configuration Procedures describes the procedures used to configure the EAGLE to support the SEAS over IP feature.

Controlled Feature Activation Procedures describes the procedures necessary to activate and deactivate the controlled features (features that require a feature access key to be activated) contained in this guide.

Setting Up a Secure Telnet Connection to the EAGLE using PuTTY describes the steps to set up a secure telnet connection to to the **EAGLE** using the PuTTY client program.

Setting Up a Secure Telnet Connection to the EAGLE using OpenSSHdescribes the steps to set up a secure telnet connection to to the EAGLE using OpenSSH.

Remote Database Backup and Restore Procedures describes the procedures for backing up the database to the DB FTP server and restoring the database from the DB FTP server.

Maintenance and Administration Subsystem

The Maintenance and Administration Subsystem (MAS) is the central management point for the EAGLE. The **MAS** provides user interface, maintenance communication, peripheral services, alarm processing, system disk interface, and measurements. Management and redundancy are provided by use of two separate subsystem processors.

The MAS resides on two separate sets of Maintenance and Administration Subsystem Processor (**MASP**) cards and a Maintenance Disk and Alarm card (collectively referred to as **control cards**). The control cards are located in slots 1113 through 1118 of the EAGLE control shelf. The control cards must be E5-based cards.

E5-based Control Cards

The E5-based set of EAGLE control cards consists of the following cards:

- Two Maintenance and Administration Subsystem Processor cards (E5-MASP) cards. Each dual-slot E5-MASP card is made up of the following two modules:
 - Maintenance Communication Application Processor (E5-MCAP) card
 - Terminal Disk Module (E5-TDM) card
- One Maintenance Disk and Alarm card (E5-MDAL card)

Maintenance Communication Application Processor (E5-MCAP) Card

The **E5-MCAP card** contains the Communications Processor and Applications Processor and provides connections to the IMT bus. The card controls the



maintenance and database administration activity and performs both application and communication processing. E5-MCAP cards are located in slots 1113 and 1115 of the control shelf.

Each E5-MCAP card contains two **USB ports**. One **latched USB port** is used with removable flash media ("thumb drives"), and one **flush-mounted USB port** is used with a plug-in flash drive. The **removable media** drive in the latched USB port is used to install and back up customer data. The flush-mounted USB port is used for upgrade and could be used for disaster recovery.

Terminal Disk Module (E5-TDM) Card

The **E5-TDM card** provides the Terminal Processor for the 16 I/O ports, and interfaces to the Maintenance Disk and Alarm (E5-MDAL) card and fixed disk storage. The E5-TDM card also distributes Composite Clocks and High Speed Source clocks throughout the EAGLE, and distributes Shelf ID to the EAGLE. Each E5-TDM card contains one fixed SATA drive that is used to store primary and backup system databases, measurements, and Generic Program Loads (GPLs). E5-TDM cards are located in slots 1114 and 1116 of the control shelf.

Maintenance Disk and Alarm (E5-MDAL) Card

The **E5-MDAL card** processes alarm requests and provides fan control. There is only one E5-MDAL card in a control card set. Critical, major, and minor system alarms are provided for up to 6 individual frames. In addition to the 3 system alarms, the E5-MDAL card provides the system audible alarm. The E5-MDAL card provides control of fans on a per-frame basis, and allows for each fan relay to be set individually. The E5-MDAL card is located in slots 1117 and 1118 of the control shelf.

EAGLE Database Partitions

The data that the **EAGLE** uses to perform its functions are stored in two separate areas: the fixed disk drives, and the removable media. The following sections describe these areas and data that is stored on them. These areas and their partitions are shown in Figure 1-1.



Figure 1-1 EAGLE Database Partitions (E5-Based Control Cards)

Fixed Disk Drive

There are two fixed disk drives on the **EAGLE**. The fixed disk drives contain the "primary" set of data and programs for the **EAGLE**. The two fixed disk drives are located on the terminal disk modules (**E5-TDM**s). Both disks have the same files. The data stored on the fixed disks is partially replicated on the various cards in the **EAGLE**. Changes made during database administration sessions are sent to the appropriate cards.

The data on the fixed disks can be viewed as four partitions.

- Current partition
- Backup partition



- Measurements partition
- Generic program loads (GPLs) partition

The data which can be administered by users is stored in two partitions on the fixed disk, a current database partition which has the tables which are changed by on-line administration, and a backup database partition which is a user-controlled copy of the current partition.

All of the on-line data administration commands affect the data in the current partition. The purpose of the backup partition is to provide the users with a means of rapidly restoring the database to a known good state if there has been a problem while changing the current partition.

A full set of **GPL**s is stored on the fixed disk, in the **GPL** partition. There is an approved **GPL** and a trial **GPL** for each type of **GPL** in this set and a utility **GPL**, which has only an approved version. Copies of these **GPL**s are downloaded to the **EAGLE** cards. The **GPL** provides each card with its functionality. For example, the ss7ansi **GPL** provides **MTP** functionality for link interface modules (**LIM**s).

Measurement tables are organized as a single partition on the fixed disk. These tables are used as holding areas for the measurement counts.

Removable Media

The removable media is used with the E5-MCAP card portion of the E5-MASP in card locations 1113 and 1115.

The removable media is used for two purposes.

- To hold an off-line backup copy of the administered data and system GPLs
- To hold a copy of the measurement tables

Because of the size of the data stored on the fixed disk drives on the **E5-TDMs**, a single removable media cannot store all of the data in the database, **GPL** and measurements partitions.

To use a removable media to hold the system data, it must be formatted for system data. To use a removable media to hold measurements data, it must be formatted for measurements data. The **EAGLE** provides the user the ability to format a removable media for either of these purposes. A removable media can be formatted on the **EAGLE** by using the format-disk command. More information on the format-disk command can be found in *Commands User's Guide*. More information on the removable media drives can be found in *Hardware Guide*.

Additional and preformatted removable media are available from the My Oracle Support (MOS).



2 Database Management Procedures

Chapter 2, Database Management Procedures, describes the different options for managing the database, such as backing up data and copying database tables from one disk to another, and provides procedures for tasks associated with database applications.

Introduction

This chapter contains procedures for creating database backups or backups of the system data, and restoring the database or system data. The term "database" refers to all data that can be administered by the user including shelves, cards, links, routes, global title translation tables, and gateway screening tables. The term "system data" refers to data that cannot be administered by the user including maintenance software and generic program loads (**GPL**s).

These procedures are to be used as they are presented in this chapter. If these procedures are not followed, and a database backup or restore is attempted, a system failure could result.

The procedures shown in this chapter use a variety of commands. If more information on these commands is needed, go to *Commands User's Guide* to find the necessary information.

The database management procedures are used to perform these functions:

- Verifying the database
- Backing up the database
 - on the fixed disk
 - to the removable media.
 - to the FTP server
- Restoring the database
 - from the backup partition of the fixed disk
 - from the removable media.
 - from the FTP server
- Repairing the database
- Copying the database from the active to the standby fixed disk
- Backing up system data to the removable media
- Restoring system data from a removable media
- Formatting the fixed disk of the standby **TDM**
- Formatting the removable media.



The procedures for performing database backups to the FTP server and restoring the database from the FTP server are in Remote Database Backup and Restore Procedures.

The procedures in this chapter refer to the **Maintenance and Administration Subsystem** Processor (**MASP**), **Terminal Disk Module** (**TDM**) and the Maintenance Disk and Alarm Card (**MDAL**), and E5-MCAP cards.

The **TDM** is associated with a specific E5-MCAP card. For example, the **TDM** in location 1114 is associated with the E5-MCAP card in location 1113 and the combination of these two cards is designated as **MASP** A. The **TDM** in location 1116 is associated with the E5-MCAP card in location 1115 and the combination of these two cards designated as **MASP** A is active, the E5-MCAP card in location 1113 and **TDM** in location 1114 are active. When **MASP** A is standby, the E5-MCAP card in location 1114 are standby. One **MASP** is always active and the other **MASP** is always standby.

To determine which **MASP** is active, enter the <code>rept-stat-db</code> command, the <code>rept-stat-card</code> command.

The output of the <code>rept-stat-db</code> command shows which **MASP** is active with the indicator (<code>ACTV</code>) following the **TDM** card location. The indicator (<code>STDBY</code>) following the **TDM** card location shows which **MASP** is standby.

The output of the rept-stat-card command shows which **MASP** is active with the entry ACTIVE in the SST field for the E5-MCAP card. The entry STANDBY in the SST field for the E5-MCAP card shows which **MASP** is standby.

The database commands, such as rept-stat-db, refer to the **TDM** because the **TDM** contains the fixed disk drive for the **MASP**.

Refer to Maintenance and Administration Subsystem for more information about the Maintenance and Administration Subsystem.

Refer to *Hardware Guide* for more information about the cards that make up the Maintenance and Administration Subsystem.

Removable USB Drive

Purpose:

This section is referenced in this manual by many procedures requiring the use of the removable USB thumb disk in the E5-MASP card. The procedures found in this section are recommended procedures for handling the removable USB drive in the E5-MASP card.

Requirements:

None

Procedure - Remove USB Drive

1. Verify that the removable USB drive is locked in position and in use.

The removable drive latch (SW1) is in the LOCKED position and the Removable Media Status **LED** on the E5-MASP is Off. Refer to Figure 2-1.





Figure 2-1 Removable USB Drive LOCKED

2. Move SW1 from the LOCKED to the unlocked position and wait for the LED to indicate a steady blue state. See Figure 2-2.

When SW1 is transitioned from locked to unlocked, the LED will flash blue to indicate the drive is unlocked and in process of shutting down.

Caution:

Removal of the drive prior to the LED indicating steady blue could result in drive corruption.





Figure 2-2 Removable USB Drive UNLOCKED

3. When the LED indicates a steady blue state, the removable USB drive can be safely removed. The **LED** is off when the USB drive is fully ejected from the drive media.

The USB drive can now be removed from the drive media.

- 4. Lift the access door up, swing it past the detent position so that the door remains open on its own.
- 5. Grasp the pull tab of the slide and pull the slide out slowly until it stops (it travels about a half inch).

Caution:

The full travel of the slide is less than an inch, do not try to pull the assembly to expose the full length of the thumb drive as this is beyond the slide's designed travel.

- 6. The USB drive is disengaged and can be taken from the inject eject assembly.
- 7. Insert a USB drive into the inject-eject assembly.
- 8. Grasp the pull tab of the slide and push the slide in slowly until you feel the USB drive is seated in its slot (it travels about a half inch).
- 9. Close the access door.
- 10. Move SW1 from the unlocked to the LOCKED position.

When SW1 is transitioned from unlocked to locked, the LED will flash blue to indicate the drive is locked and in process of coming online.

11. When the LED turns Off, the removable USB drive is ready for use.

Verifying the Database

Verifying the database means to check the operational status of the database. The rept-stat-db command is used to check the operational status of the database. The rept-stat-db command has three optional parameters that can be used with it, display, loc, and db.

The display parameter can use four values: brief (the default value), except, all, and version. The value for the loc parameter is the card location of the card, based on the **GPL** assigned to the card, whose database you wish to verify. These card locations are shown in *Hardware Reference*. The db parameter specifies which database to display: stp (the **EAGLE** databases), mps (the **MPS** databases) and all (both **STP** and **MPS** databases).

The operational status of the database is shown by the indicator **C**. This indicator shows whether the database is coherent. **Coherency** is an indication of whether the update to the database was successful. Each database has a coherency indicator. When an update is attempted, the coherency indicator is set to "incoherent" before the actual update is executed. When the update has been successfully completed, the coherency indicator is not successful, the coherency indicator is incoherent, this could be an indication of possible internal coherency problems when a restart is executed (for example, an index table was updated, but the corresponding data storage table was not modified).

For more information about the rept-stat-db command, refer to the rept-stat-db command description in *Commands User's Guide*.

Checking the Status of the Database

To check the operational status of the database:

- 1. At the prompt, enter the rept-stat-db command.
- 2. The output of the rept-stat-db command shows the current operational status of the **EAGLE**'s distributed databases.
- **3.** If the database is coherent, the database has no problems. The procedure is completed.

If any **MPS/ELAP/EPAP** database is not coherent, find the conditions shown in the output of the rept-stat-db command. Then refer to either *ELAP Administration* and *LNP Feature Activation Guide* or *EPAP Administration Guide*, and perform the database recovery procedures described in the **RTDB** / Maintenance menus.

If any **STP** database is not coherent, find the conditions shown in the output of the rept-stat-db command in this list and execute the appropriate command.

• If the current partition of both fixed disks are coherent and the backup partition of the either fixed disk is not coherent, as shown in this output example, use the chg-db:action=backup:dest=fixed command. For more information, refer to Making a Backup of the Database on the Fixed Disk.

rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0 DATABASE STATUS: >> NOT OK << TDM 1114 (STDBY) TDM 1116 (ACTV)



If the E5-MASP is being used, this is an example of the rept-stat-db output.

rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0 DATABASE STATUS: >> NOT OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP _____ FD BKUP Y 36 DIFF LEVEL N FD CRNT Y 106 Y 45 INCOHERENT Y 106 MCAP 1115 MCAP 1113 - ------ -----RD BKUP Y 36 09-02-19 09:27:17 GMT Y 36 09-02-19 09:27:17 GMT - - Y 3 09-02-07 USB BKP --01:11:22 GMT

The chg-db:action=backup:dest=fixed command is also used to backup the current database on both fixed disks to the backup partition of both fixed disks.

 If the current partition of the active fixed disk is coherent and the database on the removable cartridge is not coherent, as shown in this output example, use the chg-db:action=backup:dest=remove command. For more information, refer to Making a Backup of the Database to the Removable Media.

```
rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0
DATABASE STATUS: >> NOT OK <<
     TDM 1114 ( STDBY)
                              TDM 1116 ( ACTV )
      C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
      - ----- - ------
_____
FD BKUP Y
           35 09-02-01 10:19:18 GMT Y 35 09-02-01
10:19:18 GMT
FD CRNT Y 106
                               Y 106
     MDAL 1117
      - --
          ____
RD BKUP N 106 INCOHERENT
```



If the E5-MASP is being used, this is an example of the <code>rept-stat-db</code> output.

rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0 DATABASE STATUS: >> NOT OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP - ----- - ------_____ FD BKUP Y 35 09-02-01 10:19:18 GMT Y 35 09-02-01 10:19:18 GMT Y 106 FD CRNT Y 106 MCAP 1113 MCAP 1115 - ------ -----
 RD BKUP N
 106 INCOHERENT
 N
 106 INCOHERENT

 USB BKP Y
 3 09-02-01
 01:11:22 GMT

The chg-db:action=backup:dest=remove command is also used to backup the current database on both fixed disks to the removable cartridge.

• If the backup partition of both fixed disks are coherent and the current partition of both fixed disks are not coherent, use the chg-db:action=restore:src=fixed command. For more information, refer to Restoring the Database from the Backup Partition of the Fixed Disk. This condition is shown in this example output of the rept-stat-db command.

If the E5-MASP is being used, this is an example of the rept-stat-db output.



```
10:19:18 GMT

FD CRNT Y 35 DIFF LEVEL N 68 INCOHERENT

MCAP 1113 MCAP 1115

- -------

RD BKUP Y 36 09-02-01 09:27:17 GMT Y 36 09-02-01

09:27:17 GMT

USB BKP - - - - Y 3 09-02-01

01:11:22 GMT
```

• If the database on the removable cartridge is coherent and the current partition of the both fixed disks are not coherent, use the chg-db:action=restore:src=remove command. For more information, refer to Restoring the Database from the Removable Media. This condition is shown in this example output of the rept-stat-db command.

```
rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0
DATABASE STATUS: >> NOT OK <<
      TDM 1114 ( STDBY)
                                TDM 1116 ( ACTV )
      C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
      - ----- ------ - ------
_____
FD BKUP Y 35 009-02-01 10:19:18 GMT Y 35 09-02-01
10:19:18 GMT
FD CRNT Y 106 DIFF LEVEL
                        N 93 INCOHERENT
      MDAL 1117
       - -----
RD BKUP Y
           106 09-01-31 14:29:03 GMT
```

If the E5-MASP is being used, this is an example of the rept-stat-db output.

```
rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0
DATABASE STATUS: >> NOT OK <<
      TDM 1114 ( STDBY)
                                TDM 1116 ( ACTV )
      C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
_____
FD BKUP Y 35 09-02-01 10:19:18 GMT Y 35 09-02-01
10:19:18 GMT
                                 N 93 INCOHERENT
FD CRNT Y 106 DIFF LEVEL
     MCAP 1113
                                MCAP 1115
      - -----
                                 - -----
RD BKUP Y 106 09-01-31 14:29:03 GMT Y 106 09-01-31
14:29:03 GMT
USB BKP - -
                 - - Y 3 09-01-15
01:11:22 GMT
```

• If the backup and current partitions on the active fixed disks are coherent and the backup and current partitions on the standby fixed disks are not coherent, use the chg-db:action=repair command. For more information, refer to Repairing the



Database. This condition is shown in this example output of the rept-stat-db command.

rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0 DATABASE STATUS: >> NOT OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP - ----- ------ - ------_____ FD BKUP N 35 INCOHERENT Y 55 DIFF LEVEL FD CRNT N 106 INCOHERENT Y 55 DIFF LEVEL MDAL 1117 _ ____ RD BKUP - -

If the E5-MASP is being used, this is an example of the rept-stat-db output.

rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0 DATABASE STATUS: >> NOT OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP _____ FD BKUP N 35 INCOHERENT Y 55 DIFF LEVEL FD CRNT N 106 INCOHERENT MCAP 1113 Y 55 DIFF LEVEL MCAP 1115 - -----_ _ RD BKUP Y 106 09-01-31 14:29:03 GMT Y 106 09-01-31 14:29:03 GMT - - Y 3 09-01-15 USB BKP - -01:11:22 GMT

If, after executing the appropriate change database command, the database is still not coherent, contact the Customer Care Center. Refer to My Oracle Support (MOS) for the contact information.

Backing Up the Database Locally

The **backup** procedures should be performed according to the preventive maintenance procedures in Chapter 2, "Preventive Maintenance," of *Maintenance Guide*. The procedures copy the current database to either the inactive (backup) partition on the fixed disk or to the removable media. To backup a database, the chg-db command uses these parameters.

:action=backup – the operation to perform on the database, a backup of the current database



:dest - the destination of the backup operation.

- fixed the backup partition of the fixed disk.
- remove the removable media for E5-based control cards installed in the EAGLE.

The database can also be backed up to the FTP server. Perform the procedure Making a Backup of the Database to the FTP Server to backup the database to the FTP server.

Making a Backup of the Database on the Fixed Disk

This procedure is used to make a backup of the database on the fixed disk using the chg-db command with action=backup and dest=fixed parameters.

The databases in the current partitions of both **MASPs** (**FD CRNT**) must be coherent. For more information on verifying the database, refer to Verifying the Database.

1. Verify that the databases in the current partitions of both **MASPs** (**FDCRNT**) are coherent using the rept-stat-db command.

This is an example of the possible output.

rlghncxa)3w 06-10-0)1 16:07:48 GMT	EAGLE5 3	36.0.0	
DATABASE	STATUS: >>	• OK <<			
r	TDM 1114 (STDBY)	Т	TDM 1116 ()	ACTV)
	C LEVEL	TIME LAST BA	CKUP	C LEVEL	TIME LAST
BACKUP					
FD BKUP	Y 35	5 04-06-01 10:19	:18 GMT	У 35	04-06-01
10:19:18	GMT				
FD CRNT	Y 106	5		Y 106	
	MDAL 1117				
RD BKUP	Y 106	5 04-05-31 14:29	:03 GMT		

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

```
rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0
DATABASE STATUS: >> OK <<
     TDM 1114 ( STDBY )
                              TDM 1116 ( ACTV )
      C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
      - ----- - ------
_____
FD BKUP Y 35 09-02-19 10:19:18 GMT Y 35 09-02-19
10:19:18 GMT
FD CRNT Y 106
                               Y 106
     MCAP 1113
                              MCAP 1115
     - -----
                               _ ____
RD BKUP - -
                       _
                               Y 106 09-02-08
```



```
14:29:03 GMT
USB BKP - - - - Y 3 09-02-07
01:11:22 GMT
```

2. Enter the chg-db:action=backup:dest=fixed command.

This command can take up to 30 minutes to execute, depending on other system activity that is in progress when this command is entered. The action of this command is shown in Figure 2-3.

 Note:
If this command takes more than 60 minutes to execute, contact My Oracle Support (MOS).





During command execution, these messages appear (the active **MASP** is displayed first):

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```

3. Verify that the databases of both **MASPs** are coherent using the rept-stat-db command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 16:07:48 GMT EAGLE5 36.0.0
DATABASE STATUS: >> OK <<
	TDM 1114 (STDBY) TDM 1116 (ACTV)
	C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
```



```
------

FD BKUP Y 106 04-06-01 16:09:17 GMT Y 106 04-06-01

16:09:17 GMT

FD CRNT Y 106 Y 106

MDAL 1117

- ------

RD BKUP Y 106 04-05-31 14:29:03 GMT
```

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

rlghncxa	a03w ()9-03-01	16:07:48	8 GMT EAG	GLE5 40.	1.0		
DATABASE	STAT	rus: >>	OK <<					
	TDM 1	L114 (S	TD	TDM 1116 (ACTV)				
	СI	LEVEL	TIME L	AST BACKUI	С	LEVEL	TIME LAST	
BACKUP								
FD BKUP	Y	106	09-03-01	16:09:18	GMT Y	106	09-03-01	
16:09:18	3 GMT							
FD CRNT	Y	106			Y	106	5	
	MCAP	1113			MCA	P 1115		
RD BKUP	-	-	-	-	Y	106	09-02-08	
14:29:03	3 GMT							
USB BKP	-	-	-	-	Y	3	09-02-07	
01:11:22	2 GMT							



Figure 2-4 Making a Backup of the Database on the Fixed Disk



Making a Backup of the Database to the Removable Media

This procedure is used to make a backup of the database to the or removable media using the chg-db command with the action=backup and dest=remove parameters.

The database in the current partition of the active **MASP** (**FD CRNT**) must be coherent. For more information on verifying the database, refer to Verifying the Database.

Formatting blank removable media for E5-based control cards that are installed in the EAGLE is required. If the removable media is not formatted, perform Formatting Removable Media to format the media.

1. Verify that the database in the current partition of the active MASP (FDCRNT) is coherent using the rept-stat-db command.

This is an example of the possible output.

rlghncxa()3w 06-10)-13 16:	07:48 GMT	EAGLE5	45.	0.0	
DATABASE	STATUS:	>> OK <	<				
E5TDM 1114 (STDBY)					Ε	5TDM 1116	G (ACTV)
	C LEVEL	L TI	ME LAST B	ACKUP	С	LEVEL	TIME LAST
BACKUP							
					_		
FD BKUP	Y	35 04-0	6-01 10:1	9:18 GMT	Y	35	04-06-01
10:19:18	GMT						
FD CRNT	Y 1	L06			Y	106	
	E5MDAL 1	L117					
RD BKUP			-	-			

The following is an example of the possible output.

rlghncxa	a03w 06-	-03-13 1	6:07:48	MT EAGLE5	45.0	.0				
DATABASI	E STATUS	S: >> OK	<<							
E5TDM 1114 (STDBY)						E5TDM 1116 (ACTV)				
	C LEV	VEL	TIME LAST	BACKUP	CI	LEVEL	TIME LAS	Т		
BACKUP										
FD BKUP	Y	35 09	-02-19 10	:19:18 GMT	Y	35 0	9-02-19			
10:19:18	3 GMT									
FD CRNT	Y	106			Y	106				
	E5MCAP	1113			E51	MCAP 1115				
RD BKUP			-	-	-	-	-	-		
USB BKP			-	-	-	-	-	-		

If the database in the current partition of the active MASP is not coherent, refer to Verifying the Database to resolve the database problem.



If the database in the current partition of the active MASP is coherent, or after the database problem has been resolved, continue the procedure by performing one of these steps.

2. The database can be backed up to the removable media in the active MASP or in both MASPs (if the removable media is present in both MASPs).

Perform one of these substeps.

a. If the database will be backed up to the removable media in both MASPs, check the removable media drives in both MASPs for removable media.

If removable media is present in both MASPs, continue the procedure by performing one of these steps.

- If the removable media will be used for the backup, continue the procedure with 3. When the backup is performed, the database in the current partition of each fixed disk is copied to the corresponding removable media on each MASP.
- If the removable media will not be used for the backup, remove the media that will not be used for the backup and insert the media that will be used for the backup. Refer to Removable USB Drive for information about removing and inserting the removable media. After the media has been inserted into the removable media drives, continue the procedure with 3.

If the removable media drives in both MASPs are empty, insert the media that will be used for the backup. Refer to Removable USB Drive for information about inserting the removable media. After the media has been inserted into the removable media drives, continue the procedure with 3.

If the removable media drive in only one MASP contains removable media, continue the procedure by performing one of these steps.

- If the removable media that is present will be used for the backup, insert the media that will be used for the backup into the empty removable media drive. Refer to Removable USB Drive for information about inserting the removable media. After the media has been inserted into the removable media drive, continue the procedure with 3.
- If the removable media that is present will not be used for the backup, remove the media from that removable media drive and insert the media that will be used for the backup into both removable media drives. Refer to Removable USB Drive for information about removing and inserting the removable media. After the media has been inserted into the removable media drives, continue the procedure with 3.
- b. If the database will be backed up to the removable media in only one MASP, the removable media must be inserted in the removable media drive on the active MASP. Check the removable media drives in both MASPs for removable media.

If removable media is inserted into the removable media drive on active MASP and no removable media is inserted into the removable media drive on the standby MASP, and this media will be used for the backup, continue the procedure with 3. When the backup is performed, the database in the current partition of the fixed disk on the active MASP is copied to the removable media on the active MASP.

If removable media is inserted into the removable media drive on active MASP and no removable media is inserted into the removable media drive on the standby MASP, and this media will not be used for the backup, remove the



media from the removable media drive and insert the media that will be used for the backup into the removable media drive on the active MASP. After the media has been inserted, continue the procedure with **3**.

If removable media is inserted into the removable media drive on standby MASP and no removable media is inserted into the removable media drive on the active MASP, remove the media from the removable media drive and insert the media that will be used for the backup into the removable media drive on the active MASP. After the media has been inserted, continue the procedure with 3.

If removable media drives in both MASPs are empty, insert the media that will be used for the backup into the removable media drive on the active MASP. After the media has been inserted, continue the procedure with 3.

3. Backup the database by entering this command.

```
chg-db:action=backup:dest=remove
```

During command execution, these messages should appear.

```
BACKUP (REMOVABLE) : MASP A - Backup starts on active MASP.
BACKUP (REMOVABLE) : MASP A - Backup to removable device complete.
```

Note:

This command can take up to 30 minutes to execute, depending on the size of the database and other system activity that is in progress when this command is entered. If this command takes more than 60 minutes to execute, contact the Customer Care Center for assistance. Refer to My Oracle Support (MOS) for the contact information.

4. Verify that the databases on the removable media (RD BKUP on both MASPs or the active MASP if the backup was performed only to the removable media on the active MASP) and the current partition of the active MASP (FD CRNT) are coherent using the rept-stat-db command.

If the database was backed up to the removable media, this is an example of the possible output.

```
rlqhncxa03w 06-03-13 16:07:48 GMT EAGLE5 45.5.0
DATABASE STATUS: >> OK <<
      E5TDM 1114 ( STDBY )
                                   E5TDM 1116 ( ACTV )
       C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
       - -----
FD BKUP Y
            35 09-02-19 10:19:18 GMT Y
                                       35 09-02-19
10:19:18 GMT
           106
FD CRNT Y
                                  Y
                                       106
      E5MCAP 1113
                                   E5MCAP 1115
RD BKUP Y 106 09-03-23 16:09:53 GMT Y 106 09-03-23
```

```
16:09:53 GMT
USB BKP - - - - - - - -
```

Note:

If the database was backed up to only the removable media on the active MASP, then only the RD BKUP entry for the active MASP (in this example, MCAP 1115) is displayed.

- 5. If the database was backed up to the removable media, remove the removable media from the removable media drives on the MASPs. For more information on removing the removable media from the removable media drives, refer to Removable USB Drive.
- 6. Label the removable media 1 through 4 if the backup is performed weekly or monthly, A through D if the backup is performed quarterly.

For more information on labeling the removable media, see Chapter 2, "Preventive Maintenance," in *Maintenance Guide*.





Figure 2-5 Making a Backup of the Database to the Removable Cartridge or Removable Media



Sheet 1 of 4







Sheet 2 of 4






Sheet 3 of 4





Sheet 4 of 4

Restoring the Database Locally

The **restore** procedures are used to bring a database from the backup partition of both **MASPs** and load the database onto the current partitions of both **MASPs**. It is also used to load a database from a removable media on to the current partitions of both **MASPs**. To restore a database, the chg-db command uses these parameters.

:action=restore – the operation to perform on the database, restoring a previously backed up database

:src – the source of the database that is being restored.

- fixed the backup partition of the fixed disk.
- remove the removable media for E5-based control cards installed in the EAGLE.
- sloc the source location (either 1113 or 1115) of the MASP that contains the removable media from which the database will be restored. The sloc parameter can be specified only with the src=remove parameter.

The database can also be restored from the FTP server. Perform the procedure Restoring the Database from the FTP Server, to restore the database from the FTP server.

Caution:

If the restore device state option is on, shown by the ON value for the RSTRDEV field in the rtrv-stpopts command output, the state of the cards, **SS7** signaling links, **TCP/IP** data links, and terminals before the chg-db:action=restore and init-sys commands are performed will not be maintained after these commands are performed. The persistent device state table becomes obsolete and is disabled. **UIM** 1257 is generated.

```
rlghncxa03w 06-10-01 16:07:48 GMT EAGLE5 36.0.0
1234.1257 SYSTEM INFO DB Restore has cleared and disabled PDS
```

Restoring the Database from the Backup Partition of the Fixed Disk

This procedure is used to restore the database from the backup partition of the fixed disk using the chg-db command with the action=restore and src=fixed parameters.

The databases in the backup partitions of both **MASP**s (**RD BKUP**) must be coherent. For more information on verifying the database, refer to Verifying the Database.



Caution:

Using the action=restore parameter with the chg-db command is an emergency recovery procedure, and requires the init-sys command to download the restored database to all the cards in the EAGLE 5

1. Verify that the databases in the backup partitions of both **MASP**s (**FD BKUP**) are coherent using the rept-stat-db command.

The following is an example of the possible output:

The following is an example of the possible output:

```
rlghncxa03w 13-06-01 16:07:48 GMT EAGLE5 45.0.0
DATABASE STATUS: >> OK <<
       E STATUS: >> OK <<
E5TDM 1114 (STDBY) E5TDM 1116 (ACTV)
C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
        - ----- - ------ - ------
_____
FD BKUP Y 35 09-02-19 10:19:18 GMT Y 35 09-02-19 10:19:18 GMT
10:19:18 GMT
FD CRNT Y 106
                                        Y 106
      E5MCAP 1113
                                       E5MCAP 1115
       - -----
                                       - -----
RD BKUP - -
USB BKP -
           -
```

2. Enter the chg-db:action=restore:src=fixed command.

This command can take up to 30 minutes to execute, depending on other system activity that is in progress when this command is entered.

If this command takes more than 60 minutes to execute, contact the Customer Care Center for assistance. Refer to My Oracle Support (MOS) for the contact information.

During command execution, these messages appear (the active **MASP** is displayed first):

```
RESTORE (FIXED) : MASP A - Restore starts on active MASP.
RESTORE (FIXED) : MASP A - Restore from fixed disk on active MASP
complete.
RESTORE (FIXED) : MASP A - Restore starts on standby MASP.
RESTORE (FIXED) : MASP A - MASP(s) will reboot to load data.
RESTORE (FIXED) : MASP A - Restore from fixed disk on stdby MASP
complete.
```

The action of this command is shown in Figure 2-6.





3. When the commands have successfully completed, re-initialize the **EAGLE** 5 using the init-sys command.

Caution:

The init-sys command causes a complete reload of the EAGLE 5, and should only be used during periods of low traffic. Using this command ensures that all cards are running the same database, but will interrupt service.



The init-sys command must be entered twice within 30 seconds for the **EAGLE** 5 to be re-initialized. If the init-sys command is not executed twice within 30 seconds, the attempt to re-initialize the **EAGLE** 5 is aborted.

When the init-sys command is first entered, this message should appear.

rlghncxa03w 06-10-01 07:05:01 GMT EAGLE5 36.0.0 CAUTION: This command causes a complete system reload, and will result in traffic loss. Re-enter command within 30 seconds to confirm.

When the init-sys command is re-entered within the 30 second time limit, this message should appear.

```
rlghncxa03w 06-10-01 07:05:17 GMT EAGLE5 36.0.0
Init System command issued at terminal #3
```

From the time that the init-sys command is accepted, you must wait approximately 2 minutes before you can perform step 4 (logging into the **EAGLE** 5). If the **EAGLE** 5 terminal is in the **VT**-100/**VT**-320 mode, the terminal display will be refreshed with non-zero alarm counts. During this 2 minutes interval, an intermediate screen refresh caused by the **MASP**s role change from active to standby, and from standby to active. This screen refresh is typically a partial refresh and the alarm indicators are set to zero.

If you are logged into the EAGLE 5 in the KSR mode, the only response you will receive that you are now able to log into the EAGLE 5 is that you will receive UAM 0009, MASP became active. UAM 0009 could be issued twice due to possible transient MASP role change (switching from active to standby). Following the execution of the init-sys command, the MASP that was active before the init-sys command was entered will be the active MASP when the EAGLE 5 has finished reinitializing.

4. Log into the EAGLE 5 using the login or act-user command.

This is an example of the messages that appear when you have successfully logged onto the **EAGLE** 5.

NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.

0 LOGIN failures since last successful LOGIN Last successful LOGIN was on port 4 on 04-06-01 @ 09:34:56

5. Verify that the databases of both MASPs are coherent using the rept-stat-db command.



This is an example of the possible output.

rlghncxa03w 13-06-01 16:07:48 GMT EAGLE5 45.0.0 DATABASE STATUS: >> OK << E5TDM 1114 (STDBY) E5TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP - ----- - ------_____ FD BKUP Y 35 04-06-01 10:19:18 GMT Y 35 04-06-01 10:19:18 GMT FD CRNT Y 35 Y 35 E5MDAL 1117 - -----RD BKUP - --

The following is an example of the possible output:

rlghncxa03w 13-07-01 16:07:48 GMT EAGLE5 45.0.0 DATABASE STATUS: >> OK << E5TDM 1114 (STDBY) E5TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP - ----- - ------_____ FD BKUP Y 35 09-02-19 10:19:18 GMT Y 35 09-02-19 10:19:18 GMT FD CRNT Y 35 Y 35 E5MCAP 1113 E5MCAP 1115 - ------ -----RD BKUP - --_ _ USB BKP - --_ - -_ _





Figure 2-7 Restoring the Database from the Backup Partition of the Fixed Disk



Restoring the Database from the Removable Media

This procedure is used to restore the database from the removable media using the chg-db command with the action=restore and src=remove parameters.

Removable media that contains the database being restored must be inserted into the removable media drive in one or both of the MASPs. When the database is being restored, the database on the removable media in one of the MASPs is copied to the current partition of both fixed disks. The removable media to copy the database from is specified with the sloc parameter. The value of the sloc parameter is the location of the MASP that contains the removable media, either 1113 or 1115, that the database will be copied from. The sloc parameter is optional. If the sloc parameter is not specified, the database will be copied from the removable media in the active MASP. If removable media is installed in both MASPs, and the database levels of the removable media are not the same, the sloc parameter must be specified with the chg-db command. The database on the removable media (RD BKUP) must be coherent. If the database on the removable media is not coherent, contact the Customer Care Center for assistance. Refer to My Oracle Support (MOS) for the contact information.

Caution:

Using the action=restore parameter with the chg-db command is an emergency recovery procedure, and requires the init-sys command to download the restored database to all the cards in the EAGLE.

1. Verify the control cards that are installed in the EAGLE.

Refer to Maintenance and Administration Subsystem for information about the control cards.

- 2. Verify that the database on the removable media (**RD BKUP**) is coherent using the rept-stat-db command.
 - The following is an example of the possible output.

```
rlghncxa03w 06-10-13 16:07:48 GMT EAGLE5 45.0.0
DATABASE STATUS: >> OK <<
      E5TDM 1114 ( STDBY )
                                     E5TDM 1116 ( ACTV )
       C LEVEL TIME LAST BACKUP C LEVEL
                                              TIME
LAST BACKUP
       - -----
                                   - -----
_____
FD BKUP Y
             35 09-10-01 10:19:18 GMT Y
                                          35 09-10-01
10:19:18 GMT
FD CRNT Y
            95
                                   Y
                                          95
      E5MCAP 1113
                                     E5MCAP 1115
      - -----
RD BKUP Y
            106 09-09-30 16:09:53 GMT Y
                                         106 09-09-30
16:09:53 GMT
USB BKP -
```



If removable media is installed in the MASP that you wish to use to restore the database, and you wish to use this media to restore the database, continue the procedure by performing one of these actions.

- If the database is coherent, continue the procedure with 3.
- If the database is not coherent, contact the Customer Care Center for assistance. Refer to My Oracle Support (MOS) for the contact information.

If removable media is installed in the MASP that you wish to use to restore the database, but you do not wish to use this media to restore the database, continue the procedure by performing these actions.

- Remove the media from the removable media drive.
- Insert the removable media that does contain the database that you wish to use to restore the database into the removable media drive that you wish to use.
- Enter the rept-stat-db command.
- If the database is coherent, continue the procedure with 3.
- If the database is not coherent, contact the Customer Care Center for assistance. Refer to My Oracle Support (MOS) for the contact information.

If removable media is not installed in the MASP that you wish to use to restore the database, continue the procedure by performing these actions.

- Insert the removable media that does contain the database that you wish to use to restore the database into the removable media drive that you wish to use.
- Enter the rept-stat-db command.
- If the database is coherent, continue the procedure with 3.
- If the database is not coherent, contact the Customer Care Center for assistance. Refer to My Oracle Support (MOS) for the contact information.
- 3. Restore the database by performing one of these substeps.
 - a. Enter the following command.

chg-db:action=restore:src=remove

During command execution, these messages should appear.

RESTORE (REMOVABLE) : MASP A - Restore starts on active MASP. RESTORE (REMOVABLE) : MASP A - Restore starts on standby MASP. RESTORE (REMOVABLE) : MASP A - MASP(s) will reboot to load data. RESTORE (REMOVABLE) : MASP A - Restore from removable drive complete.



This command can take up to 30 minutes to execute, depending on the size of the database and other system activity that is in progress when this command is entered. If this command takes more than 60 minutes to execute, contact the Customer Care Center for assistance. Refer to My Oracle Support (MOS) for the contact information.

After this command has completed, continue the procedure with 4.

b. When the database is being restored from removable media, the database on the removable media in one of the MASPs is copied to the current partition of both fixed disks.

The removable media to copy the database from can be specified with the sloc parameter. The value of the sloc parameter is the location of the MASP that contains the removable media, either 1113 or 1115, that the database will be copied from. The sloc parameter is optional. If the sloc parameter is not specified, the database will be copied from the removable media in the active MASP. If removable media is installed in both MASPs, and the database levels of the removable media are not the same, the sloc parameter must be specified with the chg-db command.

For this example, enter this command.

chg-db:action=restore:src=remove:sloc=1113

During command execution, these messages should appear.

```
RESTORE (REMOVABLE) : MASP A - Restore starts on active MASP.
RESTORE (REMOVABLE) : MASP A - Restore starts on standby MASP.
RESTORE (REMOVABLE) : MASP A - MASP(s) will reboot to load data.
RESTORE (REMOVABLE) : MASP A - Restore from removable drive
complete.
```

Note:

This command can take up to 30 minutes to execute, depending on the size of the database and other system activity that is in progress when this command is entered. If this command takes more than 60 minutes to execute, contact My Oracle Support for assistance. Refer to My Oracle Support (MOS) for the contact information.

After this command has completed, continue the procedure with 4.

4. When the commands have successfully completed, re-initialize the **EAGLE** using the init-sys command.



Caution:

The init-sys command causes a complete reload of the EAGLE, and should only be used during periods of low traffic. Using this command ensures that all cards are running the same database, but will interrupt service.

Note:

The init-sys command must be entered twice within 30 seconds for the **EAGLE** to be re-initialized. If the init-sys command is not executed twice within 30 seconds, the attempt to re-initialize the **EAGLE** is aborted.

When the init-sys command is first entered, this message should appear.

```
rlghncxa03w 06-10-01 07:05:01 GMT EAGLE5 36.0.0
CAUTION: This command causes a complete system reload, and
will result in traffic loss.
Re-enter command within 30 seconds to confirm.
```

When the init-sys command is re-entered within the 30 second time limit, this message should appear.

```
rlghncxa03w 06-10-01 07:05:17 GMT EAGLE5 36.0.0
Init System command issued at terminal #3
```

From the time that the init-sys command is accepted, you must wait approximately 2 minutes before you can perform 5 (logging into the **EAGLE**). If the **EAGLE** terminal is in the **VT**-100/**VT**-320 mode, the terminal display will be refreshed with non-zero alarm counts. During this 2 minutes interval, an intermediate screen refresh caused by the **MASPs** role change from active to standby, and from standby to active. This screen refresh is typically a partial refresh and the alarm indicators are set to zero.

If you are logged into the EAGLE in the KSR mode, the only response you will receive that you are now able to log into the EAGLE is that you will receive UAM 0009, MASP became active. UAM 0009 could be issued twice due to possible transient MASP role change (switching from active to standby). Following the execution of the init-sys command, the MASP that was active before the init-sys command was entered will be the active MASP when the EAGLE has finished reinitializing.

5. Log into the EAGLE using the login or act-user command.

This is an example of the messages that appear when you have successfully logged into the **EAGLE**.

NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.

0 LOGIN failures since last successful LOGIN Last successful LOGIN was on port 4 on 04-06-01 @ 09:34:56

6. Verify that the databases on the removable media (RD BKUP), and the current partitions of both MASPs (FD CRNT) are coherent using the rept-stat-db command.

The following is an example of the possible output:

rlghncxa03w 06-10-13 16:07:48 GMT EAGLE5 45.0.0 DATABASE STATUS: >> OK << E5TDM 1114 (STDBY) E5TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP _ _____ _ ____ _____ FD BKUP Y 35 09-10-01 10:19:18 GMT Y 35 09-10-01 10:19:18 GMT FD CRNT Y 95 95 Y E5MCAP 1113 E5MCAP 1115 - ------ -----RD BKUP Y 106 09-09-30 16:09:53 GMT Y 106 09-09-30 16:09:53 GMT USB BKP -

This procedure is finished.

7. Remove the removable media from the removable media drive on the **E5-MDAL** card.

Repairing the Database

Perform the **repair** procedure whenever the two fixed disks have a different database image, such as after a **MASP** failure. This procedure copies the fixed disk image of the database associated with the active **MASP** to the fixed disk of the standby **MASP**. Figure 2-8 illustrates this action. To repair a database, The chg-db command uses only one parameter, action=repair – the operation to perform on the database, repairing a database







To repair the database, perform this procedure.

The databases in the current (**FD CRNT**) and the backup (**FD BKUP**) partitions of the active **MASP** must be coherent. For more information on verifying the database, refer to Verifying the Database.

Caution:	
----------	--

To prevent any potential database corruption when performing this procedure, the terminals must be placed out of service with the rmv-trm command before executing the chg-db:action=repair command.

1. Verify that the databases in the current (FDCRNT) and the backup (FDBKUP) partitions of the active MASP are coherent using the rept-stat-dbcommand.

This is an example of the possible output.

rlghncxa()3w 13-07-01 16:07:48 GMT EAGLE	15 45.0.0	
DATABASE	STATUS: >> NOT OK <<		
	E5TDM 1114 (STDBY)	E5TDM 1116	(ACTV)
	C LEVEL TIME LAST BACKUP	C LEVEL	TIME LAST
BACKUP			
FD BKUP	N 35 INCOHERENT	Y 55	DIFF
LEVEL			
FD CRNT	N 106 INCOHERENT	Y 55	
	E5MDAL 1117		
RD BKUP			

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

rlghncxa03w 13-07-01 16:07:48 GMT EAGLE5 45.0.0



DATABASI	E STATUS: >>	OK <<	
	E5TDM 1114	(STDBY)	E5TDM 1116 (ACTV)
	C LEVEL	TIME LAST BACKUP	C LEVEL TIME LAST
BACKUP			
FD BKUP	N 35	INCOHERENT	Y 55 DIFF
LEVEL			
FD CRNT	N 106	INCOHERENT	Y 55
	E5MCAP 1113		E5MCAP 1115
RD BKUP			
GMT			
USB BKP			
GMT			

2. Display the terminal configuration in the database with the rtrv-trm command.

The SEAS terminals are shown in the output with the entry SEAS in the TYPE field. This is an example of the possible output. In this example, the SEAS terminals are terminals 18 and 27. If no SEAS terminals are shown in the rtrv-trm command output, go to step 5.

rlgh	ncxa03w 1	0-07-01 16:02	2:08 GN	IT EAGI	LE5 42.	.0.0	
TRM	TYPE	COMM	FC	TMOUT	MXINV	DURAL	
1	VT320	9600-7-E-1	SW	30	5	99:59:59	
2	KSR	9600-7-E-1	HW	30	5	INDEF	
3	PRINTER	4800-7-E-1	HW	30	0	00:00:00	
4	VT320	2400-7-E-1	BOTH	30	5	00:30:00	
5	VT320	9600-7-0-1	NONE	30	5	00:00:30	
б	VT320	9600-7-0-1	NONE	30	5	00:00:30	
7	PRINTER	9600-7-N-2	HW	30	5	00:30:00	
8	KSR	19200-7-E-2	BOTH	30	5	00:30:00	
9	VT320	9600-7-0-1	NONE	30	5	00:00:30	
10	VT320	9600-7-E-1	HW	30	5	00:30:00	
11	VT320	4800-7-E-1	HW	30	5	00:30:00	
12	PRINTER	9600-7-E-1	HW	30	4	00:30:00	
13	VT320	9600-7-0-1	NONE	30	5	00:30:00	
14	VT320	9600-7-E-2	SW	30	8	00:30:00	
15	VT320	9600-7-N-2	HW	30	5	00:30:00	
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00	
TRM	TYPE	LOC		TMOUT	MXINV	DURAL	SECURE
17	TELNET	1201		60	5	00:30:00	yes
18	SEAS	1201		60	5	00:30:00	yes
19	TELNET	1201		60	5	00:30:00	yes
20	TELNET	1201		60	5	00:30:00	yes
21	TELNET	1201		60	5	00:30:00	yes
22	TELNET	1201		60	5	00:30:00	yes
23	TELNET	1201		60	5	00:30:00	yes
24	TELNET	1201		60	5	00:30:00	yes
25	TELNET	1203		60	5	00:30:00	yes
26	TELNET	1203		60	5	00:30:00	yes
27	SEAS	1203		60	5	00:30:00	yes

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28	TELNET	1203	60	5	00:30:00	yes
29	TELNET	1203	60	5	00:30:00	yes
30	TELNET	1203	60	5	00:30:00	yes
31	TELNET	1203	60	5	00:30:00	yes
32	TELNET	1203	60	5	00:30:00	yes
33	TELNET	1205	60	5	00:30:00	yes
34	TELNET	1205	60	5	00:30:00	yes
35	TELNET	1205	60	5	00:30:00	yes
36	TELNET	1205	60	5	00:30:00	yes
37	TELNET	1205	60	5	00:30:00	yes
38	TELNET	1205	60	5	00:30:00	yes
39	TELNET	1205	60	5	00:30:00	yes
40	TELNET	1205	60	5	00:30:00	yes

The rtrv-trm command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrvtrm command, see the rtrv-trm command description in *Commands User's Guide*.

3. Display the status of the terminals with the rept-stat-trm command with the terminal number of the SEAS terminals.

For this example, enter these commands.

rept-stat-trm:trm=18

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 18 IS-NR Active -----Command Completed.

rept-stat-trm:trm=27

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 27 IS-NR Active -----Command Completed.

4. Place the SEAS terminals out of service using the rmv-trm command with the number of the terminal displayed in step 3 whose state is not OOS-MT-DSBLD.

The force=yes parameter must be used when placing the last SEAS terminal out of service.

For this example, enter these commands.

rmv-trm:trm=18



rmv-trm:trm=27:force=yes

If the status of the SEAS terminals shown in the PST field in step 3 is **OOS-MT-DSBLD** (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

This message should appear when each of these commands have successfully completed.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Inhibit message sent to terminal
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.

5. Enter the chg-db:action=repair command.

This command can take up to 30 minutes to execute, depending on the size of the database and other system activity that is in progress when this command is entered.

Note:

If this command takes more than 60 minutes to execute, contact My Oracle Support (MOS).

During command execution, these messages appear:

```
REPAIR: MASP A - Repair starts on standby MASP.
REPAIR: MASP A - Standby MASP will reboot to load data.
REPAIR: MASP A - Repair from fixed disk complete.
```

6. Verify that the databases of both **MASPs** are coherent using the rept-statdbcommand.

The following is an example of the possible output:

```
rlghncxa03w 13-07-01 16:07:48 GMT EAGLE5 45.0.0
DATABASE STATUS: >> OK <<
      E5TDM 1114 ( STDBY )
                               E5TDM 1116 ( ACTV )
      C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
       - ----- - ------
------
FD BKUP N 55 09-03-01 13:11:43 GMT Y 55 09-03-01
13:11:43 GMT
FD CRNT N 55
                                Y
                                      55
      E5MCAP 1113
                                E5MCAP 1115
      - -----
                               - -----
RD BKUP - -
                        _
```



GMT USB BKP - - - - - - - - -GMT

If SEAS terminals are shown in the rtrv-trm command output in step 2, go to step 7. Otherwise this procedure is completed.

7. Put the SEAS terminals back into service with the rst-trm command with the number of the terminals specified in step 4.

For this example, enter these commands.

rst-trm:trm=18

rst-trm:trm=27

This message should appear when each command has successfully completed.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Allow message sent to terminal

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.
```









Copying the Database from the Active to the Standby Fixed Disk

This procedure copies everything on the active fixed disk to the standby fixed disk using the copy-disk command. Figure 2-10 shows the action of the copy-disk command.

Figure 2-10 Action of the Copy Disk Procedure

ACTIVE FIXED DISK

STANDBY FIXED DISK



The copy-disk command uses these parameters.

:sloc – the card location of the active fixed disk

:dloc - the card location of the standby fixed disk

: force – does the standby fixed disk contain system data? This parameter provides some protection against data loss from copying over a fixed disk containing system data. If the standby fixed disk contains system data, you must specify the force=yes parameter. The default value for this parameter is no.

:format – is the standby fixed disk to be formatted before the data from the active fixed disk is copied to the standby fixed disk? The default value for this parameter is yes, the standby fixed disk will be formatted before copying.

Specify the format=no parameter with the copy-disk command to copy to the standby fixed disk without formatting the standby fixed disk. The standby fixed disk must be properly formatted to specify the format=no parameter. If the standby fixed disk is not properly formatted and the format=no parameter is specified, the copy-disk command will be rejected with this message.

E2819 Cmd Rej: Destination disk is unformatted



The performance time required to copy a fixed disk to another fixed disk varies depending on database size and system activity. This operation should typically take no longer than 2.5 hours. If you are not performing the low-level format (format=no), the operation should take no longer than 1 hour. If the copy-disk operation exceeds 3 hours, contact My Oracle Support for assistance. Refer to My Oracle Support (MOS) for the contact information. If the copy-disk operation without the low-level format exceeds 1.5 hours, contact My Oracle Support.

The databases in the current (**FD CRNT**) and the backup (**FD BKUP**) partitions of the active **MASP** must be coherent. For more information on verifying the database, refer to the Verifying the Database section. Measurements must be inhibited.

The standby fixed disk cannot be formatted if the security log on the standby fixed disk contains any entries that have not been copied to the **FTA** area of the fixed disk. This can be verified with the rept-stat-seculog command. If the security log on the standby fixed disk contains entries that have not been copied to the file transfer area of the fixed disk, copy these entries to the file transfer area using the copy-seculog command.

The copy-disk command can be executed if the status of the security log on the standby fixed disk cannot be determined. This allows the copy-disk command to format and initialize a previously un-initialized fixed disk. An un-initialized fixed disk does not contain a security log.

Caution:

To prevent any potential database corruption when performing this procedure, the SEAS terminals must be placed out of service with the rmv-trm command before executing the copy-disk command.

1. Verify that the databases in the current (FDCRNT) and the backup (FDBKUP) partitions of the active MASP are coherent using the rept-stat-dbcommand.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 16:07:48 GMT EAGLE5 36.0.0
DATABASE STATUS: >> NOT OK <<
      E5TDM 1114 (STDBY)
                                  E5TDM 1116 ( ACTV )
       C LEVEL TIME LAST BACKUP
                                  C LEVEL
                                            TIME LAST
BACKUP
       - -----
FD BKUP Y 75 04-06-01 13:11:43 GMT Y 95 04-06-01
13:11:43 GMT
FD CRNT N
            55 DIFF LEVEL
                                 Y
                                       105
      E5MDAL 1117
```



- -----RD BKUP - - - -

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

```
rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0
DATABASE STATUS: >> OK <<
      E5TDM 1114 ( STDBY )
                                  E5TDM 1116 ( ACTV )
      C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
       - ----- - ------
_____
FD BKUP Y 75 09-02-19 10:19:18 GMT Y 95 09-02-19
10:19:18 GMT
FD CRNT N 55 DIFF LEVEL
                                 Y
                                     105
     E5MCAP 1113
                                 E5MCAP 1115
      - -----
                                 _ ____
RD BKUP -
        -
                 _
USB BKP -
         _
                  _
```

2. Verify whether or nor the Measurements Platform option is enabled (PLATFORMENABLE = on) using the rtrv-measopts command.

```
rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0
PLATFORMENABLE = on
COLLECT15MIN = off
CLLIBASEDNAME = off
------
SYSTOTSTP = off
SYSTOTTT = off
```

Note:

The rtrv-measopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-measopts command, see the rtrv-measopts command description in *Commands User's Guide*.

- If the Measurements Platform is enabled, continue the procedure with 5.
- If the Measurements Platform is not enabled, continue the procedure with 3.
- 3. Verify that measurement collection is on or off using the rtrv-meas-sched command.

This is an example of the possible output. The COLLECT field shows whether measurement collection is on or off. In this example, measurement collection is on.

rlghncxa03w 06-10-01 12:22:55 GMT EAGLE5 36.0.0

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COLLECT	=	on bath
GIWILSFLIR	=	n 100
SYSTOT-STP	=	off
SYSTOT-TT	=	off
COMP-LNKSET	=	off
COMP-LINK	=	on
GTWY-STP	=	on
GTWY-LNKSET	=	on
MTCD-STP	=	on
MTCD-LINK	=	on
MTCD-LNKSET	=	on

- If measurement collection is off, continue the procedure with 5.
- If measurement collection is on, continue the procedure with 4.
- 4. Inhibit all measurements using the chg-meas:collect=off command.

Caution:

Measurement collection must be turned off or the copy-disk command cannot be executed. The chg-meas:collect=on command should not be executed while the copy-disk command is in progress. If possible, do not turn off measurement collection at midnight since doing so can cause the loss of an entire day of measurements. For the period of time that measurement collection is turned off, those measurements will be lost.

This message should appear.

rlghncxa03w 06-10-01 16:12:50 GMT EAGLE5 36.0.0 CHG-MEAS: MASP A - COMPLTD

5. Verify that the security log on the standby **MASP** contains no entries that must be copied to the **FTA** area of the fixed disk with the rept-stat-seculog command.

This is an example of the possible output.

rlghr	ncxa03w	06-10-01	15:59	:06 GN	MT EAGI	LE5 36.0.0)	
		SINCH	E LAST	UPLOA	AD	OLDEST	NEWEST	LAST
LOC	ROLE	ENTRIES	%FULL	OFLO	FAIL	RECORD	RECORD	UPLOAD
1114	Active	8312	84	No	No	03-12-05	04-06-01	04-05-30
						11:23:56	15:59:06	14:02:22
1116	Standby	693	7	No	No	03-12-05	04-06-01	04-05-30
						11:24:12	14:00:06	14:02:13

If the number shown in the ENTRIES field for the standby **MASP** (shown with the entry Standby in the ROLE field) is 0, continue the procedure with 7.



If the number shown in the ENTRIES field for the standby **MASP** is greater than 0, these entries must be copied to the **FTA** area of the fixed disk. To copy these entries, continue the procedure with 6.

6. Copy the security log entries on the standby MASP to the FTA area on the fixed disk with the copy-seculog command.

For this example, enter the copy-seculog:slog=stb command. This is an example of the message that should appear.

rlghncxa03w 06-10-01 15:59:06 GMT EAGLE5 36.0.0 Security log on E5TDM 1116 copied to file 961004s.log on E5TDM 1114

7. Display the terminal configuration in the database with the rtrv-trm command.

The SEAS terminals are shown in the output with the entry SEAS in the TYPE field. This is an example of the possible output. In this example, the SEAS terminals are terminals 18 and 27. If no SEAS terminals are shown in the rtrv-trm command output, continue the procedure with 10.

rlghncxa03w 10-07-01 16:02:08 GMT EAGLE5 42.0.0								
TRM	TYPE	COMM	FC	TMOUT	MXINV	DURAL		
1	VT320	9600-7-E-1	SW	30	5	99:59:59		
2	KSR	9600-7-E-1	HW	30	5	INDEF		
3	PRINTER	4800-7-E-1	HW	30	0	00:00:00		
4	VT320	2400-7-E-1	BOTH	30	5	00:30:00		
5	VT320	9600-7-0-1	NONE	30	5	00:00:30		
6	VT320	9600-7-0-1	NONE	30	5	00:00:30		
7	PRINTER	9600-7-N-2	HW	30	5	00:30:00		
8	KSR	19200-7-E-2	BOTH	30	5	00:30:00		
9	VT320	9600-7-0-1	NONE	30	5	00:00:30		
10	VT320	9600-7-E-1	HW	30	5	00:30:00		
11	VT320	4800-7-E-1	HW	30	5	00:30:00		
12	PRINTER	9600-7-E-1	HW	30	4	00:30:00		
13	VT320	9600-7-0-1	NONE	30	5	00:30:00		
14	VT320	9600-7-E-2	SW	30	8	00:30:00		
15	VT320	9600-7-N-2	HW	30	5	00:30:00		
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00		
TRM	TYPE	LOC		TMOUT	MXINV	DURAL	SECURE	
17	TELNET	1201		60	5	00:30:00	yes	
18	SEAS	1201		60	5	00:30:00	yes	
19	TELNET	1201		60	5	00:30:00	yes	
20	TELNET	1201		60	5	00:30:00	yes	
21	TELNET	1201		60	5	00:30:00	yes	
22	TELNET	1201		60	5	00:30:00	yes	
23	TELNET	1201		60	5	00:30:00	yes	
24	TELNET	1201		60	5	00:30:00	yes	
25	TELNET	1203		60	5	00:30:00	yes	
26	TELNET	1203		60	5	00:30:00	yes	
27	SEAS	1203		60	5	00:30:00	yes	
28	TELNET	1203		60	5	00:30:00	yes	
29	TELNET	1203		60	5	00:30:00	yes	
20								
30	TELNET	1203		60	5	00:30:00	yes	

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32	TELNET	1203	60	5	00:30:00	yes
33	TELNET	1205	60	5	00:30:00	yes
34	TELNET	1205	60	5	00:30:00	yes
35	TELNET	1205	60	5	00:30:00	yes
36	TELNET	1205	60	5	00:30:00	yes
37	TELNET	1205	60	5	00:30:00	yes
38	TELNET	1205	60	5	00:30:00	yes
39	TELNET	1205	60	5	00:30:00	yes
40	TELNET	1205	60	5	00:30:00	yes

The rtrv-trm command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrvtrm command, see the rtrv-trm command description in *Commands User's Guide*.

If SEAS terminals are not shown in the rtrv-trm output, continue the procedure with 10.

If SEAS terminals are shown in the rtrv-trm output, continue the procedure with 8.

8. Display the status of the SEAS terminals with the rept-stat-trm command with the terminal number of the SEAS terminals.

For this example, enter these commands.

rept-stat-trm:trm=18

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 18 IS-NR Active -----Command Completed.

rept-stat-trm:trm=27

This is an example of the possible output.

 rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0

 TRM
 PST
 SST
 AST

 27
 IS-NR
 Active

 Command Completed.

9. Place the SEAS terminals out of service using the rmv-trm command with the number of the terminal displayed in 8 whose state is not OOS-MT-DSBLD.

The force=yes parameter must be used when placing the last SEAS terminal out of service.

For this example, enter these commands.



```
rmv-trm:trm=18
```

rmv-trm:trm=27:force=yes

If the status of the SEAS terminals shown in the PST field in 8 is OOS-MT-DSBLD (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

This message should appear when each of these commands have successfully completed.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Inhibit message sent to terminal

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.
```

10. Enter the copy-disk command along with the card location of the standby E5-TDM (shown by the indicator STDBY in the rept-stat-db command output in 1) that the data is being copied to.

If the standby fixed disk contains system data, the force=yes parameter must be specified with the copy-disk command. If you do not wish to format the standby fixed disk before copying, specify the format=no parameter with the copy-disk command.

For this example, enter this command.

copy-disk:dloc=1114:sloc=1116:force=yes:format=yes

In this example, the standby fixed disk contains **EAGLE** data and will be formatted before any data is copied to the standby fixed disk.

Note:

The performance time required to copy a fixed disk to another fixed disk varies depending on database size and system activity. This operation should typically take no longer than 2.5 hours. If you are not performing the low-level format (format=no), the operation should take no longer than 1 hour. If the copy-disk operation exceeds 3 hours, contact My Oracle Support for assistance. Refer to My Oracle Support (MOS) for the contact information. If the copy-disk operation without the low-level format exceeds 1.5 hours, contact My Oracle Support.

🖍 warning:

Failure of the copy-disk command may result in corrupted **E5-TDM**s. If you experience a copy-disk command failure, contact the My Oracle Support for assistance. Refer to My Oracle Support (MOS) for the contact information.



When the command has been executed and completed, these messages should appear.

```
rlghncxa03w 06-10-01 10:22:05 GMT EAGLE5 36.0.0
    copy-disk:sloc=1116:dloc=1114:force=yes
    Command entered at terminal #3.
;
    rlghncxa03w 06-10-01 10:22:06 GMT EAGLE5 36.0.0
    Copy-disk (fixed): from active (1116) to standby (1114) started.
    Extended processing required, please wait.
;
    rlghncxa03w 06-10-01 10:22:08 GMT EAGLE5 36.0.0
    Copy-disk (fixed): format of standby disk started
;
    rlghncxa03w 06-10-01 10:27:08 GMT EAGLE5 36.0.0
    Copy-disk (fixed): format in progress
;
   rlghncxa03w 06-10-01 10:32:08 GMT EAGLE5 36.0.0
    Copy-disk (fixed): format in progress
;
    rlghncxa03w 06-10-01 11:07:05 GMT EAGLE5 36.0.0
    Copy-disk (fixed): format of standby disk completed
;
    rlghncxa03w 06-10-01 11:07:06 GMT EAGLE5 36.0.0
    Copy-disk (fixed): copying to standby disk started
;
    rlghncxa03w 06-10-01 11:12:06 GMT EAGLE5 36.0.0
    Copy-disk (fixed): copy in progress
;
    rlghncxa03w 06-10-01 11:27:10 GMT EAGLE5 36.0.0
    Copy-disk (fixed): from active (1116) to standby (1114)
completed.
    Measurements collection may be turned on now if desired.
If the format=no parameter was specified in this example, these messages
should appear when the copy-disk command has successfully completed.
copy-disk:dloc=1114:sloc=1116:force=yes:format=no
    rlghncxa03w 06-10-01 10:22:06 GMT EAGLE5 36.0.0
    Copy-disk (fixed): from active (1116) to standby (1114) started.
    Extended processing required, please wait.
;
    rlghncxa03w 06-10-01 11:07:08 GMT EAGLE5 36.0.0
    Copy-disk (fixed): copying to standby disk started
```

```
rlghncxa03w 06-10-01 11:12:06 GMT EAGLE5 36.0.0
Copy-disk (fixed): copy in progress
;
rlghncxa03w 06-10-01 11:17:06 GMT EAGLE5 36.0.0
Copy-disk (fixed): copy in progress
;
rlghncxa03w 06-10-01 11:22:06 GMT EAGLE5 36.0.0
Copy-disk (fixed): copy in progress
;
rlghncxa03w 06-10-01 11:27:08 GMT EAGLE5 36.0.0
Copy-disk (fixed): from active (1116) to standby (1114)
completed.
Measurements collection may be turned on now if desired.
```

The standby **MASP** is rebooted to load the data when the command completes successfully.

Note:

;

While this command is executing, commands that affect the database configuration cannot be executed. Any attempt to execute such a command will be rejected.

- If measurement collection was turned off in 4, continue the procedure with 11.
- If measurement collection was not turned off in 4, continue the procedure with 12.
- **11.** Turn measurement collection on using the chg-meas:collect=on command.

This message should appear.

rlghncxa03w 06-10-01 16:12:50 GMT EAGLE5 36.0.0 CHG-MEAS: MASP A - COMPLTD

12. Verify that the databases of both **MASPs** are coherent using the rept-stat-db command.

This is an example of the possible output.

rlghncxa03w 06-10-01 16:07:48 GMT EAGLE5 36.0.0 DATABASE STATUS: >> OK << E5TDM 1114 (STDBY) E5TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP

 FD BKUP
 Y
 95 04-06-01 05:53:36 GMT
 Y
 95 04-06-01

 05:53:36
 GMT
 FD CRNT
 Y
 105
 105

 FD CRNT
 Y
 105
 Y
 105

 E5MDAL
 1117

 RD BKUP

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

rlghncxa	a03w 0	9-03-02	1 16:07:4	8 GMT	EAGLE5	40.1	.0		
DATABASI	E STAT	US: >>	OK <<						
	E5TDM	1114	(STDBY)			E	5TDM 1116	5 (ACTV)
	СL	EVEL	TIME L	AST BA	CKUP	С	LEVEL	TIME LA	ST
BACKUP									
FD BKUP	Y	95	09-02-19	10:19	:18 GMT	Y	95 (9-02-19	
10:19:18	3 GMT								
FD CRNT	Y	105				Y	105		
	E5MCA	P 1113				E5	MCAP 1115	5	
RD BKUP	-	-	-	-		-	-	-	-
USB BKP	-	-	-	-		-	-	_	-

If SEAS terminals are shown in the rtrv-trm command output in 7, continue the procedure with 13. Otherwise this procedure is completed.

13. Put the SEAS terminals back into service using the rst-trm command with the number of the terminals specified in 9.

For this example, enter these commands.

rst-trm:trm=18

rst-trm:trm=27

This message should appear when each command has successfully completed.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Allow message sent to terminal
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.









Sheet 1 of 3





Sheet 2 of 3





Sheet 3 of 3

Backing Up System Data to the Removable Media

This section details the procedure used to make a backup copy of the system data in addition to the database.

The term "database" refers to all data that can be administered by the user, including shelves, cards, links, routes, global title translation tables, and gateway screening tables. The term "system data" refers to data that cannot be administered by the user, including maintenance software modules and generic program loads (**GPL**s).

- 1. Perform Making a Backup of the Database to the Removable Media to make a backup of the database to the removable cartridge or removable media. Perform this procedure without performing the last two steps (removing the media) and labeling the media. After the backup of the database has been made, continue the procedure with 2.
- 2. Make a backup copy of the **GPL**s on the fixed disk of the active **E5-TDM** to the removable media using the copy-gpl command. Perform the following substep.
 - If the removable media was used to make the backup of the database, the GPLs are copied from the active E5-TDM to the removable media on the active MASP. For this example, enter this command.

copy-gpl:sloc=1116:dloc=1115:ddrv=remove

During command execution, these messages should appear.

rlghncxa03w 09-03-01 14:50:46 GMT EAGLE5 40.1.0 COPY-GPL: MASP B - COPY STARTS ON ACTIVE MASP ; rlghncxa03w 09-03-01 14:50:46 GMT EAGLE5 40.1.0

- COPY GPL: MASP B COPY TO REMOVABLE DRIVE COMPLETE
- 3. Verify the **GPL**s on the removable media with the rtrv-gpl command.

This is an example of the possible output.

```
tekelecstp 18-01-18 21:23:11 EST EAGLE 46.5.1.5.0-73.10.0
   rtrv-gpl
   Command entered at terminal #18.
;
Command Accepted - Processing
   tekelecstp 18-01-18 21:23:11 EST EAGLE 46.5.1.5.0-73.10.0
   GPL Auditing ON
   GPL
             CARD RELEASE
                               APPROVED
                                               TRIAL
REMOVE TRIAL
   OAMHC
             1114 143-010-000 143-010-000 ALM
                                               _____
  _____
   OAMHC
             1116 143-010-000 143-010-000 ALM ------
```



ОАМНС	1115			
OAMHC69	1114	143-010-000	143-010-000 ALM	
ОАМНС69	1116	143-010-000	143-010-000 ALM	
ОАМНС69	1115			
IPSG32	1114	143-010-000	143-010-000	143-010-000
IPSG32	1116	143-010-000	143-010-000	143-010-000
IPSG32	1115			
BLMCAP	1114	143-010-000	143-010-000	143-010-000
BLMCAP	1116	143-010-000	143-010-000	143-010-000
BLMCAP	1115			
HIPR2	1114	143-010-000	143-010-000	143-010-000
HIPR2	1116	143-010-000	143-010-000	143-010-000
HIPR2	1115			
SFAPP	1114	143-010-000	143-010-000 ALM	143-010-000
SFAPP	1116	143-010-000	143-010-000 ALM	143-010-000
SFAPP	1115			
SS7HC	1114	143-010-000	143-010-000	143-010-000
SS7HC	1116	143-010-000	143-010-000	143-010-000
SS7HC	1115			
SCCPHC	1114	143-010-000	143-010-000	143-010-000
SCCPHC	1116	143-010-000	143-010-000	143-010-000
SCCPHC	1115			
ERTHC	1114	143-010-000	143-010-000	143-010-000
ERTHC	1116	143-010-000	143-010-000	143-010-000
ERTHC	1115			
IPSHC	1114	143-010-000	143-010-000	143-010-000
IPSHC	1116	143-010-000	143-010-000	143-010-000


IPSHC	1115			
ATMHC	1114	143-010-000	143-010-000	143-010-000
АТМНС	1116	143-010-000	143-010-000	143-010-000
АТМНС	1115			
IPSG	1114	143-010-000	143-010-000	143-010-000
IPSG	1116	143-010-000	143-010-000	143-010-000
IPSG	1115			
PKTGHC	1114	143-010-000	143-010-000	
PKTGHC	1116	143-010-000	143-010-000	
PKTGHC	1115			
BLIXP	1114	143-010-000	143-010-000	143-010-000
BLIXP	1116	143-010-000	143-010-000	143-010-000
BLIXP	1115			
МСРНС	1114	143-010-000	143-010-000	143-010-000
МСРНС	1116	143-010-000	143-010-000	143-010-000
МСРНС	1115			
SIPHC	1114	143-010-000	143-010-000	143-010-000
SIPHC	1116	143-010-000	143-010-000	143-010-000
SIPHC	1115			
DEIRHC	1114	143-010-000	143-010-000	143-010-000
DEIRHC	1116	143-010-000	143-010-000	143-010-000
DEIRHC	1115			
ENUMHC	1114	143-010-000	143-010-000	143-010-000
ENUMHC	1116	143-010-000	143-010-000	143-010-000
ENUMHC	1115			
PKTG64	1114	143-010-000	143-010-000	
PKTG64	1116	143-010-000	143-010-000	
 РКТG64	1115			



BLDC64	1114	143-010-000		143-010-000
BLDC64	1116	143-010-000	000-000-000 ALM	143-010-000
BLDC64	1115			
SCCP64	1114	143-010-000	143-010-000	143-010-000
SCCP64	1116	143-010-000	143-010-000	143-010-000
SCCP64	1115			
BLSLC32	1114	143-010-000	143-010-000	143-010-000
BLSLC32	1116	143-010-000	143-010-000	143-010-000
BLSLC32	1115			
BLSLC64	1114	143-010-000	143-010-000	143-010-000
BLSLC64	1116	143-010-000	143-010-000	143-010-000
BLSLC64	1115			
SIP64	1114	143-010-000	143-010-000	143-010-000
SIP64	1116	143-010-000	143-010-000	143-010-000
SIP64	1115			
DEIR64	1114	143-010-000	143-010-000	143-010-000
DEIR64	1116	143-010-000	143-010-000	143-010-000
DEIR64	1115			
ENUM64	1114	143-010-000	143-010-000	143-010-000
ENUM64	1116	143-010-000	143-010-000	143-010-000
ENUM64	1115			
BLDC32	1114	143-010-000		143-010-000
BLDC32	1116	143-010-000		143-010-000
BLDC32	1115			
МСРНС69	1114	143-010-000	143-010-000	143-010-000
МСРНС69	1116	143-010-000	143-010-000	143-010-000
МСРНС69	1115			



IPSHC69	1114	143-010-000	143-010-000	143-010-000
IPSHC69	1116	143-010-000	143-010-000	143-010-000
IPSHC69	1115			
BLSL932	1114	143-010-000	143-010-000	143-010-000
BLSL932	1116	143-010-000	143-010-000	143-010-000
BLSL932	1115			

;

Command Executed

This example shows GPLs on an EAGLE that has E5-based control cards installed. The GPLs were copied to the removable media in both MASPs. The USB credit card flash media is not inserted into the USB credit card flash media drive in the E5-MCAP card of the active MASP (card location 1115). If the GPLs were copied only to the removable media on the active MASP, the removable media is not inserted in the standby MASP and the GPL version number for the standby MASP is not displayed.

4. Perform the following action:

Remove the removable media from the removable media drives on the MASPs. For more information on removing the removable media from the removable media drives, refer to Removable USB Drive.

5. Label the removable media, 1 through 4 if the backup is performed weekly or monthly, A through D if the backup is performed quarterly.

For more information on labeling the removable media, see Chapter 2, "Preventive Maintenance," in *Maintenance Guide*.

Restoring System Data from a Removable Media

This section presents the procedure for restoring system data from a system backup removable media that was made by performing Backing Up System Data to the Removable Media.

Caution:

Using the action=restore parameter with the chg-db command is an emergency recovery procedure, and requires the init-sys command to download the restored database to all the cards in the **EAGLE**.



Caution:

If the restore device state option is on, shown by the ON value for the RSTRDEV field in the rtrv-stpopts command output, the state of the cards, **SS7** signaling links, **TCP/IP** data links, and terminals before the chg-db:action=restore and init-sys commands are performed will not be maintained after these commands are performed. The persistent device state table becomes obsolete and is disabled. **UIM** 1257 is generated.

rlghncxa03w 09-10-01 16:07:48 GMT EAGLE5 41.1.0 1234.1257 SYSTEM INFO DB Restore has cleared and disabled PDS

- 1. Perform Restoring the Database from the Removable Media to restore the database from the removable media. If the database is being restored from a removable media, do not remove the removable media. After the database has been restored, continue the procedure with the next step.
- Copy the GPLs from the removable media to the standby E5-TDM using the copy-gpl command. Perform the following substep.
 - If the removable media was used to restore the database, the GPLs are copied from the removable media on the active MASP to the standby E5-TDM. For this example, enter this command.

copy-gpl:sloc=1115:dloc=1114:sdrv=remove

During command execution, these messages should appear.

rlghncxa03w 09-10-01 14:50:46 GMT EAGLE5 41.1.0 COPY-GPL: MASP A - COPY STARTS ON REMOVABLE DRIVE ; rlghncxa03w 09-10-01 14:50:46 GMT EAGLE5 41.1.0 COPY GPL: MASP A - COPY TO STANDBY MASP COMPLETE

3. Verify the **GPLs** on the standby E5-TDM and removable media with the rtrv-gpl command.

This is an example of the possible output:

rlghncxa03w 8-12-13 07:01:08 GMT EAGLE5 45.0.0 GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL SIPHC 1114 134-003-000 134-003-000 134-002-000 134-003-000 1116 134-003-000 134-002-000 134-002-000 SIPHC 134-003-000 SIPHC 1115 -----_____ _____



GLS 1114	134-003-000	134-003-000	134-002-000
134-003-000 GLS 1116	134-003-000	134-002-000	134-002-000
GLS 1115			
CDU 1114	163-001-000	163-001-000	163-000-000
CDU 1116	163-001-000	163-000-000	163-000-000
CDU 1115			
IMT 1114	134-003-000	134-003-000	134-002-000
IMT 1116	134-003-000	134-002-000	134-002-000
IMT 1115			
ATMANSI 1114 134-003-000	134-003-000	134-003-000	134-002-000
ATMANSI 1116	134-003-000	134-002-000	134-002-000
ATMANSI 1115			
BPHCAP 1114	134-003-000	134-003-000	134-002-000
BPHCAP 1116 134-003-000	134-003-000	134-002-000	134-002-000
BPHCAP 1115			
BPDCM 1114 134-003-000	134-003-000	134-003-000	134-002-000
BPDCM 1116 134-003-000	134-003-000	134-002-000	134-002-000
BPDCM 1115			
BLMCAP 1114 134-003-000	134-003-000	134-003-000	134-002-000
BLMCAP 1116 134-003-000	134-003-000	134-002-000	134-002-000
BLMCAP 1115			
OAMHC 1114 134-003-000	134-003-000	134-003-000	134-002-000
OAMHC 1116 134-003-000	134-003-000	134-002-000	134-002-000
OAMHC 1115			
HIPR2 1114 134-003-000	134-003-000	134-003-000	134-002-000
HIPR2 1116 134-003-000	134-003-000	134-002-000	134-002-000
HIPR2 1115			
IPLIM 1114	134-003-000	134-003-000	134-002-000



134-003-000 IPLIM 1116 134-003-000 IPLIM 1115	134-003-000	134-002-000	134-002-000
IPLIMI 1114	134-003-000	134-003-000	134-002-000
IPLIMI 1116 134-003-000	134-003-000	134-002-000	134-002-000
IPLIMI 1115			
SS7IPGW 1114 134-003-000	134-003-000	134-003-000	134-002-000
SS7IPGW 1116 134-003-000	134-003-000	134-002-000	134-002-000
SS7IPGW 1115			
VSCCP 1114 134-003-000	134-003-000	134-003-000	134-002-000
VSCCP 1116 134-003-000	134-003-000	134-002-000	134-002-000
VSCCP 1115			
ATMITU 1114 134-003-000	134-003-000	134-003-000	134-002-000
ATMITU 1116 134-003-000	134-003-000	134-002-000	134-002-000
ATMITU 1115			
VCDU 1114 163-001-000	163-001-000	163-001-000	163-000-000
VCDU 1116 163-001-000	163-001-000	163-000-000	163-000-000
VCDU 1115			
BPMPL 1114 134-003-000	134-003-000	134-003-000	134-002-000
BPMPL 1116 134-003-000	134-003-000	134-002-000	134-002-000
BPMPL 1115			
SS7ML 1114 134-003-000	134-003-000	134-003-000	134-002-000
SS7ML 1116 134-003-000	134-003-000	134-002-000	134-002-000
SS7ML 1115			
BPHMUX 1114 134-003-000	134-003-000	134-003-000	134-002-000
BPHMUX 1116 134-003-000	134-003-000	134-002-000	134-002-000
BPHMUX 1115			
IPGWI 1114 134-003-000	134-003-000	134-003-000	134-002-000

IPGWI 1116 134-003-000	134-003-000	134-002-000	134-002-000
IPGWI 1115			
IPS 1114 134-003-000	134-003-000	134-003-000	134-002-000
IPS 1116	134-003-000	134-002-000	134-002-000
I34-003-000 IPS 1115			
BPDCM2 1114 134-003-000	134-003-000	134-003-000	134-002-000
BPDCM2 1116 134-003-000	134-003-000	134-002-000	134-002-000
BPDCM2 1115			
EROUTE 1114 134-003-000	134-003-000	134-003-000	134-002-000
EROUTE 1116 134-003-000	134-003-000	134-002-000	134-002-000
EROUTE 1115			
BPMPLT 1114	134-003-000	134-003-000	134-002-000
BPMPLT 1116 134-003-000	134-003-000	134-002-000	134-002-000
BPMPLT 1115			
MCP 1114 134-003-000	134-003-000	134-003-000	134-002-000
MCP 1116 134-003-000	134-003-000	134-002-000	134-002-000
MCP 1115			
BPHCAPT 1114 134-003-000	134-003-000	134-003-000	134-002-000
BPHCAPT 1116	134-003-000	134-002-000	134-002-000
BPHCAPT 1115			
SS7HC 1114	134-003-000	134-003-000	134-002-000
SS7HC 1116	134-003-000	134-002-000	134-002-000
SS7HC 1115			
BLBIOS 1114 134-003-000	134-003-000	134-003-000	134-002-000
BLBIOS 1116	134-003-000	134-002-000	134-002-000
BLBIOS 1115			
BLCPLD 1114	134-003-000	134-003-000	134-002-000
BLCPLD 1116	134-003-000	134-002-000	134-002-000



134-003-000 BLCPLD 1115			
GLSHC 1114	134-003-000	134-003-000	134-002-000
GLSHC 1116 134-003-000	134-003-000	134-002-000	134-002-000
GLSHC 1115			
IMTPCI 1114 134-003-000	134-003-000	134-003-000	134-002-000
IMTPCI 1116 134-003-000	134-003-000	134-002-000	134-002-000
IMTPCI 1115			
PLDPMC1 1114 134-003-000	134-003-000	134-003-000	134-002-000
PLDPMC1 1116 134-003-000	134-003-000	134-002-000	134-002-000
PLDPMC1 1115			
IPLHC 1114 134-003-000	134-003-000	134-003-000	134-002-000
IPLHC 1116 134-003-000	134-003-000	134-002-000	134-002-000
IPLHC 1115			
IPGHC 1114 134-003-000	134-003-000	134-003-000	134-002-000
IPGHC 1116 134-003-000	134-003-000	134-002-000	134-002-000
IPGHC 1115			
SS7EPM 1114 134-003-000	134-003-000	134-003-000	134-002-000
SS7EPM 1116 134-003-000	134-003-000	134-002-000	134-002-000
SS7EPM 1115			
BLBEPM 1114 134-003-000	134-003-000	134-003-000	134-002-000
BLBEPM 1116 134-003-000	134-003-000	134-002-000	134-002-000
BLBEPM 1115			
BLVXW6 1114 134-003-000	134-003-000	134-003-000	134-002-000
BLVXW6 1116 134-003-000	134-003-000	134-002-000	134-002-000
BLVXW6 1115			
BLDIAG6 1114 134-003-000	134-003-000	134-003-000	134-002-000
BLDIAG6 1116 134-003-000	134-003-000	134-002-000	134-002-000

BLDIAG6	1115 -			
SCCPHC 134-003-00	1114 0	134-003-000	134-003-000	134-002-000
SCCPHC	1116 0	134-003-000	134-002-000	134-002-000
SCCPHC	0 1115 -			
BLBSMG	- 1114 0	134-003-000	134-003-000	134-002-000
BLBSMG	0 1116 0	134-003-000	134-002-000	134-002-000
BLBSMG	0 1115 -			
ERTHC 134-003-00	1114 0	134-003-000	134-003-000	134-002-000
ERTHC 134-003-00	1116 0	134-003-000	134-002-000	134-002-000
ERTHC	1115 -			
IPSHC 134-003-00	1114 0	134-003-000	134-003-000	134-002-000
IPSHC 134-003-00	1116 0	134-003-000	134-002-000	134-002-000
IPSHC	0 1115 -			
ATMHC 134-003-00	1114 0	134-003-000	134-003-000	134-002-000
ATMHC 134-003-00	1116 0	134-003-000	134-002-000	134-002-000
ATMHC	0 1115 -			
IPSG 134-003-00	1114 0	134-003-000	134-003-000	134-002-000
IPSG 134-003-00	1116 0	134-003-000	134-002-000	134-002-000
IPSG	1115 -			
BLROM1 134-003-00	1114 0	134-003-000	134-003-000	134-002-000
BLROM1 134-003-00	1116 0	134-003-000	134-002-000	134-002-000
BLROM1	1115 -			
BLIXP 163-003-00	1114 0	163-003-000	163-003-000	163-002-000
BLIXP 163-003-00	1116 0	163-003-000	163-002-000	163-002-000
BLIXP	1115 -			

This example shows GPLs on an EAGLE that has E5-based control cards installed. The GPLs were copied from the removable media in on the active MASP. The USB credit card flash media is not inserted into the USB credit card flash media drive in the E5-MCAP card of the active MASP (card location 1115).

4. Enter the init-card command specifying the location of the E5-MCAP card making up active **MASP**.

This step makes the standby MASP the active MASP. The MASP that was active is now the standby MASP.

For this example, enter this command.

init-card:loc=1115

;

This message should appear.

rlghncxa03w 09-10-01 11:11:28 GMT EAGLE5 41.1.0
Init Card command issued to card 1115

- 5. Copy the GPLs from the removable media to the standby E5-TDM using the copy-gpl command. Perform the following substep:
 - If the removable media was used to restore the database, the GPLs are copied from the removable media on on the active MASP to the standby E5-TDM. For this example, enter this command.

copy-gpl:sloc=1113:dloc=1116:sdrv=remove

During command execution, these messages should appear.

rlghncxa03w 09-10-01 14:50:46 GMT EAGLE5 41.1.0 COPY-GPL: MASP A - COPY STARTS ON REMOVABLE DRIVE

```
rlghncxa03w 09-10-01 14:50:46 GMT EAGLE5 41.1.0
COPY GPL: MASP A - COPY TO STANDBY MASP COMPLETE
```

6. Verify the **GPLs** on the standby E5-TDM and the removable media with the rtrvgpl command.

This is an example of the possible output.

rlghncxa03w 8-12-13 07:01:08 GMT EAGLE5 45.0.0 GPL Auditing ON

GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIAL					
SIPHC	1114	134-003-000	134-003-000	134-002-000	
134-003-0	00				
SIPHC	1116	134-003-000	134-003-000	134-002-000	
134-003-0	00				
SIPHC	1115				
GLS	1114	134-003-000	134-003-000	134-002-000	
134-003-0	00				
GLS	1116	134-003-000	134-003-000	134-002-000	
134-003-0	00				
GLS	1115				



CDU 1114	163-001-000	163-001-000	163-000-000
CDU 1116	163-001-000	163-001-000	163-000-000
CDU 1115			
IMT 1114	134-003-000	134-003-000	134-002-000
IMT 1116 134-003-000	134-003-000	134-003-000	134-002-000
IMT 1115			
ATMANSI 1114 134-003-000	134-003-000	134-003-000	134-002-000
ATMANSI 1116	134-003-000	134-003-000	134-002-000
ATMANSI 1115			
BPHCAP 1114	134-003-000	134-003-000	134-002-000
BPHCAP 1116	134-003-000	134-003-000	134-002-000
BPHCAP 1115			
BPDCM 1114	134-003-000	134-003-000	134-002-000
BPDCM 1116	134-003-000	134-003-000	134-002-000
BPDCM 1115			
BLMCAP 1114	134-003-000	134-003-000	134-002-000
BLMCAP 1116	134-003-000	134-003-000	134-002-000
BLMCAP 1115			
OAMHC 1114	134-003-000	134-003-000	134-002-000
OAMHC 1116	134-003-000	134-003-000	134-002-000
OAMHC 1115			
HIPR2 1114	134-003-000	134-003-000	134-002-000
HIPR2 1116	134-003-000	134-003-000	134-002-000
HIPR2 1115			
IPLIM 1114	134-003-000	134-003-000	134-002-000
134-003-000 IPLIM 1116	134-003-000	134-003-000	134-002-000
134-003-000 IPLIM 1115			
 IPLIMI 1114	134-003-000	134-003-000	134-002-000



134-003-000 IPLIMI 1116 134-003-000	134-003-000	134-003-000	134-002-000
IPLIMI 1115			
SS7IPGW 1114 134-003-000	134-003-000	134-003-000	134-002-000
SS7IPGW 1116	134-003-000	134-003-000	134-002-000
SS7IPGW 1115			
VSCCP 1114	134-003-000	134-003-000	134-002-000
VSCCP 1116	134-003-000	134-003-000	134-002-000
VSCCP 1115			
ATMITU 1114	134-003-000	134-003-000	134-002-000
ATMITU 1116	134-003-000	134-003-000	134-002-000
ATMITU 1115			
VCDU 1114	163-001-000	163-001-000	163-000-000
VCDU 1116	163-001-000	163-001-000	163-000-000
VCDU 1115			
BPMPL 1114	134-003-000	134-003-000	134-002-000
BPMPL 1116	134-003-000	134-003-000	134-002-000
BPMPL 1115			
SS7ML 1114	134-003-000	134-003-000	134-002-000
134-003-000 SS7ML 1116	134-003-000	134-003-000	134-002-000
134-003-000 SS7ML 1115			
BPHMUX 1114	134-003-000	134-003-000	134-002-000
134-003-000 BPHMUX 1116	134-003-000	134-003-000	134-002-000
134-003-000 BPHMUX 1115			
IPGWI 1114	134-003-000	134-003-000	134-002-000
134-003-000 IPGWI 1116	134-003-000	134-003-000	134-002-000
134-003-000 IPGWI 1115			
IPS 1114 134-003-000	134-003-000	134-003-000	134-002-000

IPS 1116 134-003-000	134-003-000	134-003-000	134-002-000
IPS 1115			
BPDCM2 1114 134-003-000	134-003-000	134-003-000	134-002-000
BPDCM2 1116	134-003-000	134-003-000	134-002-000
BPDCM2 1115			
EROUTE 1114	134-003-000	134-003-000	134-002-000
EROUTE 1116 134-003-000	134-003-000	134-003-000	134-002-000
EROUTE 1115			
BPMPLT 1114	134-003-000	134-003-000	134-002-000
BPMPLT 1116	134-003-000	134-003-000	134-002-000
BPMPLT 1115			
MCP 1114	134-003-000	134-003-000	134-002-000
MCP 1116	134-003-000	134-003-000	134-002-000
134-003-000 MCP 1115			
BPHCAPT 1114	134-003-000	134-003-000	134-002-000
BPHCAPT 1116	134-003-000	134-003-000	134-002-000
BPHCAPT 1115			
SS7HC 1114	134-003-000	134-003-000	134-002-000
SS7HC 1116	134-003-000	134-003-000	134-002-000
SS7HC 1115			
BLBIOS 1114	134-003-000	134-003-000	134-002-000
BLBIOS 1116	134-003-000	134-003-000	134-002-000
BLBIOS 1115			
BLCPLD 1114	134-003-000	134-003-000	134-002-000
BLCPLD 1116	134-003-000	134-003-000	134-002-000
BLCPLD 1115			
GLSHC 1114	134-003-000	134-003-000	134-002-000
GLSHC 1116	134-003-000	134-003-000	134-002-000

134-003-000 CLSHC 1115			
IMTPCI 1114 134-003-000	134-003-000	134-003-000	134-002-000
IMTPCI 1116	134-003-000	134-003-000	134-002-000
IMTPCI 1115			
PLDPMC1 1114	134-003-000	134-003-000	134-002-000
PLDPMC1 1116	134-003-000	134-003-000	134-002-000
PLDPMC1 1115			
IPLHC 1114	134-003-000	134-003-000	134-002-000
IPLHC 1116	134-003-000	134-003-000	134-002-000
IPLHC 1115			
IPGHC 1114	134-003-000	134-003-000	134-002-000
IPGHC 1116	134-003-000	134-003-000	134-002-000
I34-003-000 IPGHC 1115			
SS7EPM 1114	134-003-000	134-003-000	134-002-000
SS7EPM 1116	134-003-000	134-003-000	134-002-000
SS7EPM 1115			
BLBEPM 1114	134-003-000	134-003-000	134-002-000
BLBEPM 1116	134-003-000	134-003-000	134-002-000
BLBEPM 1115			
BLVXW6 1114	134-003-000	134-003-000	134-002-000
BLVXW6 1116	134-003-000	134-003-000	134-002-000
BLVXW6 1115			
BLDIAG6 1114	134-003-000	134-003-000	134-002-000
BLDIAG6 1116	134-003-000	134-003-000	134-002-000
BLDIAG6 1115			
SCCPHC 1114	134-003-000	134-003-000	134-002-000
SCCPHC 1116 134-003-000	134-003-000	134-003-000	134-002-000

SCCPHC 1115			
BLBSMG 1114	134-003-000	134-003-000	134-002-000
BLBSMG 1116 134-003-000	134-003-000	134-003-000	134-002-000
BLBSMG 1115			
ERTHC 1114 134-003-000	134-003-000	134-003-000	134-002-000
ERTHC 1116 134-003-000	134-003-000	134-003-000	134-002-000
ERTHC 1115			
IPSHC 1114 134-003-000	134-003-000	134-003-000	134-002-000
IPSHC 1116 134-003-000	134-003-000	134-003-000	134-002-000
IPSHC 1115			
ATMHC 1114 134-003-000	134-003-000	134-003-000	134-002-000
ATMHC 1116 134-003-000	134-003-000	134-003-000	134-002-000
ATMHC 1115			
IPSG 1114 134-003-000	134-003-000	134-003-000	134-002-000
IPSG 1116 134-003-000	134-003-000	134-003-000	134-002-000
1PSG 1115	124 002 000	124 002 000	124 002 000
134-003-000	124 002 000	124 002 000	134-002-000
134-003-000 PLDOM1 1115	134-003-000	134-003-000	134-002-000
1113	163_003_000	162-002-000	163_002_000
163-003-000 BLIXD 1116	163-003-000	163-003-000	163-002-000
163-003-000 BLIXD 1115			105 002 000

This example shows GPLs on an EAGLE that has E5-based control cards installed. The GPLs were copied from the removable media in on the active MASP.

This procedure is finished.



Figure 2-12 Restoring System Data from a Removable Cartridge or Removable Media





Sheet 1 of 2







Sheet 2 of 2

Formatting the Fixed Disk of the Standby E5-TDM

Use this procedure to format the fixed disk of the standby **E5-TDM** using the formatdisk command.

The format-disk command uses these parameters.

:type – The type of disk or media being formatted.

- system A removable media containing system data (GPLs and the database).
 To format removable media, perform Formatting Removable Media.
- fixed The fixed disk of the standby E5-TDM.



If a format-disk:type=fixed command failure causes the standby **E5-TDM** to boot continuously, insert a removable disk that has the same release as the active **E5-TDM** into the **E5-MDAL**. The standby **E5-TDM** can then boot off of the removable disk.

:loc – The location of the standby E5-TDM, either 1114 or 1116.

:low – Is a check of the disk or media being performed and any problems found on the disk or media being repaired, yes or no? The low=yes parameter performs a check of the disk or media and any problems that are found are repaired. As an E5-TDM, no data is destroyed during this operation. If the low=no parameter is specified, the check of the disk or media is not performed. The default value for this parameter is no.

:force – Format the disk if the disk contains system data, yes or no. The default value for this parameter is no.

Note:

Reduce extended execution time when specifying the force=yes option by also using the low=no option.

:prtngrp – Indicates which disk partition group is being formatted, the active partition group (prtngrp=active) or the inactive partition group (prtngrp=inactive). The default value for the prtngrp parameter is active. The prtngrp parameter can be specified only with the low=no parameter. Contact My Oracle Support (MOS) before using the prtngrp=inactive parameter.

The database in the current (**FD CRNT**) partition of the active **MASP** must be coherent. For more information on verifying the database, refer to Verifying the Database.

Measurement collection must be turned off before the format-disk command can be executed.



The standby fixed disk cannot be formatted if the security log on the standby fixed disk contains any entries that have not been copied to the **FTA** area of the fixed disk. This can be verified with the rept-stat-seculog command. If the security log on the standby fixed disk contains entries that have not been copied to the file transfer area of the fixed disk, copy these entries to the file transfer area using the copy-seculog command.

1. Use the rept-stat-db command to verify that the database in the current (FDCRNT) partition of the active MASP is coherent .

The following is an example of the possible output:

```
rlghncxa03w 13-06-01 16:07:48 GMT EAGLE5 45.0.0
DATABASE STATUS: >> OK <<
     E5TDM 1114 ( STDBY )
                                E5TDM 1116 ( ACTV )
      C LEVEL TIME LAST BACKUP C LEVEL
                                          TIME LAST
BACKUP
       - ----- ------- - ------
_____
FD BKUP Y 35 09-02-19 10:19:18 GMT Y
                                      35 09-02-19
10:19:18 GMT
FD CRNT Y 106
                                     106
                                 Y
     E5MCAP 1113
                                 E5MCAP 1115
      _ ____
RD BKUP Y 106 09-02-15 16:09:53 GMT Y
                                    106 09-02-15
16:09:53 GMT
USB BKP -
                       - Y 95 09-02-13
                 _
16:09:53 GMT
```

If the current database on the active **MASP** is not coherent, refer to Verifying the Database to resolve the database problem.

 Verify whether or not the Measurements Platform option is enabled (PLATFORMENABLE = on) using the rtrv-measopts command. If platformenable is ON, no further check is required for the format-disk command (as MCP will take care of measurement once platformenable is on). If PLATFORMENABLE is off, check COLLECT using rtrv-meas-sched command.

This is an example of the possible output. The COLLECT field shows whether measurement collection is on or off. In this example, measurement collection is on.



MTCD-LINK = on MTCD-LNKSET = on

Note:

If measurement collection is off, skip 3 and go to 4.

3. Turn measurement collection off using the chg-meas:collect=off command.

Caution:

Measurement collection must be turned off or the format-disk command cannot be executed. The chg-meas:collect=on command should not be executed while the format-disk command is in progress. If possible, do not turn off measurement collection at midnight since doing so can cause the loss of an entire day of measurements. For the period of time that measurement collection is turned off, those measurements will be lost.

This message should appear.

rlghncxa03w 06-10-01 16:12:50 GMT EAGLE5 36.0.0 CHG-MEAS: MASP A - COMPLTD

4. Verify whether or not the Measurements Platform option is enabled (PLATFORMENABLE = on) using the rtrv-measopts command. If platformenable is ON, no further check is required for the format-disk command (as MCP will take care of measurement once platformenable is on). If PLATFORMENABLE is off, check to see if COLLECT is on using the rtrvmeas-sched command. If COLLECT is on, turn it off. If COLLECT is off, run the format-disk command, and turn it on.

```
rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0
PLATFORMENABLE = on
COLLECT15MIN = off
CLLIBASEDNAME = off
------
SYSTOTSTP = off
SYSTOTTT = off
```

Note:

The rtrv-measopts command output contains other fields that are not used by this procedure. To view all fields displayed by the rtrvmeasopts command, see the rtrv-measopts command description in *Commands User's Guide*.



Note:

If 4 shows that the Measurements Platform is not enabled, go to 7.

5. Use the rept-stat-meas command to display the status of **MCPM**s in the database .

This is an example of the possible output.

rlghncxa03w 09-02-01 16:43:42 GMT EAGLE5 40.0.0

		PST		SST	AST		
MEAS SS		IS-NR	2	Active		-	
1	ALARM STATUS	= No) Alar	ms			
CARD	VERSION		TYPE	PST	SSI		AST
2107	P 101-009-0	00	EDSM	IS-NR	Act	ive	
II	P Link A			IS-NR	Act	ive	
Available	2						
2108	101-009-0	00	EDSM	IS-NR	Act	ive	
II	P Link A			IS-NR	Act	ive	
Available	9						
2111	101-009-0	00	EDSM	IS-NR	Act	ive	
II	9 Link A			IS-NR	Act	ive	
Available	2						
CARD	2107 ALARM	STATUS	= No	Alarms			
CARD	2108 ALARM	STATUS	= No	Alarms			

6. Use the rmv-card command, specifying the card location of the MCPM, to place all MCPMs out of service .

If the **MCPM** to be placed out of service is the last **MCPM** that is in service, the force=yes parameter must also be specified. For this example, enter these commands.

```
rmv-card:loc=2107
rmv-card:loc=2108
rmv-card:loc=2111:force=yes
```

CARD 2111 ALARM STATUS = No Alarms

When each of these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
Card has been inhibited.

7. Verify that the security log on the standby **MASP** contains no entries that must be copied to the **FTA** area of the fixed disk with the rept-stat-seculog command.



This is an example of the possible output.

rlghr	ncxa03w	06-10-01	15:59	:06 GI	MT EAGI	LE5 36.0.0)	
		SINCH	E LAST	UPLO	AD	OLDEST	NEWEST	LAST
LOC	ROLE	ENTRIES	%FULL	OFLO	FAIL	RECORD	RECORD	UPLOAD
1114	Active	8312	84	No	No	03-12-05	04-06-01	04-05-30
						11:23:56	15:59:06	14:02:22
1116	Standby	693	7	No	No	03-12-05	04-06-01	04-05-30
						11:24:12	14:00:06	14:02:13

If the number shown in the ENTRIES field for the standby **MASP** (shown with the entry Standby in the ROLE field) is 0, go to step 9.

If the number shown in the ENTRIES field for the standby **MASP** is greater than 0, these entries must be copied to the **FTA** area of the fixed disk. To copy these entries, go to step 8.

For this example, go to 8.

8. Copy the security log entries on the standby MASP to the FTA area on the fixed disk with the copy-seculog command.

For this example, enter the copy-seculog:slog=stb command. This is an example of the message that should appear.

rlghncxa03w 06-10-01 15:59:06 GMT EAGLE5 36.0.0 Security log on E5TDM 1116 copied to file 961004s.log on E5TDM 1114

9. Enter the format-disk command to format the fixed disk of the standby E5-TDM.

For this example, the fixed disk of the standby **E5-TDM** contains system data and a checkof the fixed disk of the standby **E5-TDM** for problems is not performed.

format-disk:type=fixed:force=yes:low=no:loc=1114



Note:

- a. The force=yes parameter must be specified with the formatdisk command if the fixed disk of the standby E5-TDM to be formatted contains system data. All data on the fixed disk of the standby E5-TDM will be lost.
- b. The low=no parameter specified in this command example does not allow a check of the fixed disk of the standby E5-TDM for problems to be performed. If you wish to perform a check of the fixed disk of the standby E5-TDM for problems, specify the low=yes parameter with the format-disk command. Because the default value for the low parameter is no, the low parameter can be omitted when entering the format-disk command if you do not wish to perform a check of the fixed disk of the standby E5-TDM for problems.
- c. If a format-disk:type=fixed command failure causes the standby **E5-TDM** to boot continuously, insert a removable disk that has the same release as the active **E5-TDM** into the **E5-MDAL**. The standby **E5-TDM** can then boot off of the removable disk.
- d. The optional parameter prtngrp parameter can be specified with this command. The prtngrp parameter indicates which disk partition group is being formatted, the active partition group (prtngrp=active) or the inactive partition group (prtngrp=inactive). The default value for the prtngrp parameter is active. The prtngrp parameter can be specified only with the low=no parameter. Contact the Customer Care Center before using the prtngrp=inactive parameter. Refer to My Oracle Support (MOS) for the contact information.

Formatting the fixed disk of the standby **E5-TDM** can take from 14 minutes to 1 hour and 25 minutes to execute. It may take longer depending on other system activity that is in progress when this command is entered. When this command has successfully completed, these messages should appear.

```
rlghncxa03w 06-10-01 09:44:08 GMT EAGLE5 36.0.0
format-disk:type=fixed:low=no:force=yes
Command entered at terminal #3.
;
rlghncxa03w 06-10-01 09:44:08 GMT EAGLE5 36.0.0
Format-disk of standby fixed disk started.
Extended processing required, please wait.
;
rlghncxa03w 06-10-01 09:44:08 GMT EAGLE5 36.0.0
Format-disk (fixed) format in progress.
;
rlghncxa03w 06-10-01 09:44:08 GMT EAGLE5 36.0.0
```

Format-disk (fixed) format is complete.



rlghncxa03w 06-10-01 09:44:08 GMT EAGLE5 36.0.0 Format-disk of standby fixed disk completed.

To turn measurement collection on, go to step 10, otherwise, this procedure is finished.

If measurement collection was not turned off in step 3, skip steps 10 and 11, and go to step 12.

10. To turn measurement collection on, enter this command.

chg-meas:collect=on

;

This message should appear.

rlghncxa03w 06-10-01 16:12:50 GMT EAGLE5 36.0.0
CHG-MEAS: MASP A - COMPLTD

11. Verify that measurement collection is on using the rtrv-meas-sched command, shown by the COLLECT = on field in the output.

This is an example of the possible output.

rlghncxa03w 06-10-01 12:22:55 GMT EAGLE5 36.0.0 = on COLLECT GTWYLSFLTR = both _____ SYSTOT-STP = off = off SYSTOT-TT COMP-LNKSET = off COMP-LINK = on GTWY-STP = on GTWY-LNKSET = on MTCD-STP = on MTCD-LINK = on MTCD-LNKSET = on

Note:

MCPMs were not placed out of service in step 6, skip steps 12 and step 13. This procedure is finished.

12. Place the MCPMs back into service using the rst-card specifying the location of each MCPM.

For this example, enter these commands.

```
rst-card:loc=2107
rst-card:loc=2108
rst-card:loc=2111
```



When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:20:37 GMT EAGLE5 36.0.0
Card has been allowed.
```

13. Display the status of the **MCPM**s in the database with the rept-stat-meas command.

This is an example of the possible output.

PST SST AST MEAS SS IS-NR Active ____ ALARM STATUS = No Alarms CARD VERSION TYPE PST SST AST 2107 P 101-009-000 EDSM IS-NR Active ____ IP Link A IS-NR Active Available 2108 101-009-000 EDSM Active IS-NR ____ IP Link A IS-NR Active Available 2111 101-009-000 EDSM Active IS-NR ____ IP Link A IS-NR Active Available CARD 2107 ALARM STATUS = No Alarms CARD 2108 ALARM STATUS = No Alarms

rlghncxa03w 09-02-01 16:43:42 GMT EAGLE5 40.0.0

CARD 2111 ALARM STATUS = No Alarms









Sheet 1 of 4





Sheet 2 of 4





Sheet 3 of 4





Sheet 4 of 4

Formatting Removable Media

Use this procedure to prepare removable media for use on the EAGLE for holding system data or measurements data using the format-disk command. The format-disk command uses these parameters.

Note:

This procedure can be performed only if E5-based control cards are installed in the EAGLE. Refer to Maintenance and Administration Subsystem for more information about the control cards.

:type – The type of media that is being formatted.

- system Removable media containing system data (GPLs and the database)
- meas Removable media containing measurements data
- fixed The fixed disk of the standby E5-TDM. To format the fixed disk of the standby E5-TDM, perform Formatting the Fixed Disk of the Standby E5-TDM.

: loc – The location of the E5-MCAP card that contains the media that is being formatted, either 1113 or 1115.

: low - ls a check of the media being performed and any problems found on the media being repaired, yes or no? The low=yes parameter performs a check of the media and any problems that are found are repaired. No data is destroyed during this operation. If the low=no parameter is specified, the check of the media is not performed. The default value for this parameter is no.

: force – Format the media if the media contains system data, yes or no. The default value for this parameter is no.

:prtngrp - Indicates which disk partition group is being formatted, the active partition group (prtngrp=active) or the inactive partition group (prtngrp=inactive). The default value for the prtngrp parameter is active. The removable media does not contain an inactive partition group, so the prtngrp=inactive cannot be specified in this procedure.

Note:

Reduce extended execution time when specifying the force=yes option by also using the low=no option.

The database in the current (**FD CRNT**) partition of the active **MASP** must be coherent. If the current partition of the active MASP is not coherent, contact the customer care center. Refer to My Oracle Support (MOS) for the contact information.

Measurement collection must be turned off before the format-disk command can be executed.



1. Check the removable media drives on each MASP for removable media.

Perform one of these substeps.

- a. If there is no removable media in both removable media drives, insert the removable media that will be formatted into one of the removable media drives. Continue the procedure with 2. Refer to Removable USB Drive for more information about removing the removable media.
- **b.** If removable media is in the removable media drives, and the media in these drives will be formatted, continue the procedure with 2.
- c. If removable media is in the removable media drives, and the media in these drives will not be formatted, remove the removable media from the removable media drive that will be used to format the removable media. Insert the removable media that will be formatted into this drive. Continue the procedure with 2. Refer to Removable USB Drive for more information about removing and inserting the removable media.
- 2. Verify that the database in the current (FDCRNT) partition of the active MASP is coherent using the rept-stat-db command.

This is an example of the possible output.

```
rlqhncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0
DATABASE STATUS: >> OK <<
      E5TDM 1114 ( STDBY )
                                   E5TDM 1116 ( ACTV )
       C LEVEL TIME LAST BACKUP C LEVEL TIME LAST
BACKUP
       - ----- ------- - ------
FD BKUP Y 35 09-02-19 10:19:18 GMT Y 35 09-02-19
10:19:18 GMT
FD CRNT Y 106
                                   Y
                                        106
                                   E5MCAP 1115
      E5MCAP 1113
      - -----
                                   - -----
RD BKUP Y 106 09-02-15 16:09:53 GMT Y 106 09-02-15
16:09:53 GMT
                         – Y
                                       95 09-02-13
USB BKP -
16:09:53 GMT
```

If the current partition of the active MASP is not coherent, contact the customer care center. Refer to My Oracle Support (MOS) for the contact information.

If the current partition of the active MASP is coherent and removable media will be formatted, continue the procedure with 4.

3. Verify whether or nor the Measurements Platform option is enabled (PLATFORMENABLE = on) using the rtrv-measopts command.

```
rlghncxa03w 09-03-01 16:02:05 GMT EAGLE5 40.1.0
PLATFORMENABLE = on
COLLECT15MIN = off
CLLIBASEDNAME = off
------
```



SYSTOTSTP	=	off
SYSTOTTT	=	off

Note:

The rtrv-measopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-measopts command, see the rtrv-measopts command description in *Commands User's Guide*.

If the Measurements Platform is enabled, continue the procedure with 8

If the Measurements Platform is not enabled, go to 4.

4. Verify that measurement collection is on or off using the rtrv-meas-sched command.

This is an example of the possible output. The COLLECT field shows whether measurement collection is on or off. In this example, measurement collection is on.

```
rlghncxa03w 09-03-01 12:22:55 GMT EAGLE5 40.1.0
COLLECT
          = on
GTWYLSFLTR = both
_____
SYSTOT-STP
          = off
SYSTOT-TT
          = off
COMP-LNKSET = off
COMP-LINK = on
GTWY-STP
          = on
GTWY-LNKSET = on
MTCD-STP
           = on
MTCD-LINK
          = on
MTCD-LNKSET
           = on
```

If measurement collection is off, continue the procedure with 3.

If measurement collection is on, continue the procedure with 5.

5. Turn measurement collection off using the chg-meas:collect=off command.

Caution:

Measurement collection must be turned off or the format-disk command cannot be executed. The chg-meas:collect=on command should not be executed while the format-disk command is in progress. If possible, do not turn off measurement collection at midnight since doing so can cause the loss of an entire day of measurements. For the period of time that measurement collection is turned off, those measurements will be lost.


This message should appear.

rlghncxa03w 09-03-01 16:12:50 GMT EAGLE5 40.1.0 CHG-MEAS: MASP A - COMPLTD

6. Display the status of the MCPMs in the database with the rept-stat-meas command.

This is an example of the possible output.

rlghncxa03w 09-03-01 16:43:42 GMT EAGLE5 40.1.0

			PST		SST	AST	
MEAS SS			IS-NH	ર	Active		
	ALARM	STATUS	S = No	o Alai	rms		
CARE) VEI	RSION		TYPE	PST	SST	AST
2107	P 101	1-009-0	000	EDSM	IS-NR	Active	
I	P Linł	κA			IS-NR	Active	
Availabl	.e						
2108	101	1-009-0	000	EDSM	IS-NR	Active	
I	P Linł	κA			IS-NR	Active	
Availabl	.e						
2111	. 101	1-009-0	000	EDSM	IS-NR	Active	
I	P Linł	κA			IS-NR	Active	
Availabl	.e						
CARE	2107	ALARM	STATUS	= No	Alarms		
CARE	2108	ALARM	STATUS	= No	Alarms		
CARE	2111	ALARM	STATUS	= No	Alarms		

 Place all the MCPMs out of service using the rmv-card command, specifying the card location of the MCPM.

If the **MCPM** to be placed out of service is the last **MCPM** that is in service, the force=yes parameter must also be specified. For this example, enter these commands.

rmv-card:loc=2107 rmv-card:loc=2108 rmv-card:loc=2111:force=yes

When each of these commands have successfully completed, this message should appear.

rlghncxa03w 09-03-01 09:12:36 GMT EAGLE5 40.1.0
Card has been inhibited.

- 8. Format the removable media by performing one of these substeps.
 - **a.** To format removable media for system data, for this example, enter this command.

format-disk:type=system:loc=1113



If a check of the media for problems will be performed, specify the low=yes parameter with the format-disk command. If the low=yes parameter is not specified, a check of the media for problems will not be performed.

If the media contains system data, the force=yes parameter must be specified with the format-disk command. All data on the removable media will be lost.

When this command has successfully completed, these messages should appear.

```
rlqhncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
   format-disk:type=system
   Command entered at terminal #3.
;
   rlqhncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
   Format disk of system removable media started.
;
   rlqhncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
   Format disk in progress.
;
   rlqhncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
   Format disk in progress.
;
   rlqhncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
   Format disk (removable media) format is complete.
;
   rlghncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
   Format disk of system removable media completed.
   Measurements collection may be turned on now if desired.
```

b. To format removable media for measurements data, for this example, enter this command.

format-disk:type=meas:loc=1113

If a low level format of the media will be performed, specify the low=yes parameter with the format-disk command. If the low=yes parameter is not specified, a low level format of the media will not be performed.

If the media contains system data, the force=yes parameter must be specified with the format-disk command. All data on the removable media will be lost.

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
format-disk:type=meas
Command entered at terminal #3.
```



;

```
rlghncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
Format disk of measurements removable media started.
;
rlghncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
Format disk in progress.
;
rlghncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
Format disk in progress.
;
rlghncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
Format disk (removable media) format is complete.
;
rlghncxa03w 09-03-01 09:44:08 GMT EAGLE5 40.1.0
Format disk of measurements removable media completed.
Measurements collection may be turned on now if desired.
```

If 5 was not performed, continue the procedure with .

If 5 was performed, continue the procedure with 9.

 Turn measurement collection on using the chg-meas:collect=on command. This message should appear.

rlghncxa03w 09-03-01 16:12:50 GMT EAGLE5 40.1.0 CHG-MEAS: MASP A - COMPLTD

10. Verify that measurement collection is on using the rtrv-meas-sched command, shown by the COLLECT = on field in the output.

This is an example of the possible output.

rlghncxa03w 09-03-01 12:22:55 GMT EAGLE5 40.1.0 COLLECT = on = both GTWYLSFLTR ------= off SYSTOT-STP = off SYSTOT-TT COMP-LNKSET = off COMP-LINK = on GTWY-STP = on GTWY-LNKSET = on MTCD-STP = on MTCD-LINK = on MTCD-LNKSET = on

11. Place the MCPMs back into service using the rst-card specifying the location of each MCPM.

For this example, enter these commands.



```
rst-card:loc=2107
rst-card:loc=2108
rst-card:loc=2111
```

When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 09-03-01 21:20:37 GMT EAGLE5 40.1.0
Card has been allowed.
```

12. Display the status of the **MCPM**s in the database with the rept-stat-meas command.

This is an example of the possible output.

rlghncxa03w 09-03-01 16:43:42 GMT EAGLE5 40.1.0

	PS	ST	SST	AST	
MEAS SS	IS	S-NR	Active		
ALA	ARM STATUS =	No Alarms	3		
CARD	VERSION	TYPE	PST	SST	AST
2107 P	101-009-000	EDSM	IS-NR	Active	
IP I	Link A		IS-NR	Active	
Available					
2108	101-009-000	EDSM	IS-NR	Active	
IP I	Link A		IS-NR	Active	
Available					
2111	101-009-000	EDSM	IS-NR	Active	
IP I	Link A		IS-NR	Active	
Available					

CARD 2107 ALARM STATUS = No Alarms CARD 2108 ALARM STATUS = No Alarms CARD 2111 ALARM STATUS = No Alarms





Figure 2-14 Formatting Removable Media



Sheet 1 of 3





Sheet 2 of 3





Sheet 3 of 3

3 GPL Management Procedures

Chapter 3, GPL Management Procedures, describes the procedures used for managing the system data (GPLs) on the EAGLE.

Introduction

A **GPL** is the software that is loaded onto a card that allows the various features in the EAGLE to work. The EAGLE currently uses the following GPLs:

- **ATMHC** The application GPL used for high-speed ANSI and E1 **ATM** signaling links that are assigned to E5-ATM-B cards.
- BLDC32–A flash GPL containing a tar image with all code required on E5-MCAP cards to support VxWorks6.9 32-bit application, as in OAMHC69, E5-ENET-B for running IPSHC69, and E5-MCPM-B for running MCPHC69.
- **BLDC64**–A flash GPL containing a tar image of 64-bit code required on E5-SM8GB cards for SCCP64, ENUM64, SIP64 and DEIR64 applications.
- **BLMCAP**–A flash GPL containing a tar image of 32-bit code for the following cards: E5-MCAP, E5-E1T1-B, E5-ENET-B, E5-ATM-B, E5-MCPMB, and SM8GB.
- BLSLC32– A flash GPL containing a tar image of 32-bit code required on SLIC cards for 32-bit applications.
- **BLSLC64**–A flash GPL containing a tar image of 64-bit code required on SLIC cards for 64-bit applications, as in SCCP64, ENUM64, SIP64, and DEIR64.
- **BLSL932**–A flash GPL containing a tar image with all code required on SLIC card for 32-bit application on VxWorks6.9, as in IPSHC69 and MCPHC69.
- **DEIR64**—The 64-bit application GPL used on the E5-SM8G-B and SLIC cards to support the S13/S13' EIR feature.
- **ENUM64**—The 64-bit application GPL used on the E5-SM8G-B and SLIC cards for the ENUM Mobile Number Portability and Tier One Address Resolution feature.
- **ERTHC**–The application GPL used on E5-ENET-B cards for the EAGLE 5 Integrated Monitoring Support feature.
- **HIPR2** –The communication GPL used on the High-Speed IMT Packet Router (HIPR2) card.
- **IPSG** –The application GPL used for the IP Signaling Gateway M2PA and M3UA signaling links.
- IPSG32–The 32-bit application GPL used on SLIC cards that combines GTT and IPSG capabilities.
- **IPSHC** –The application GPL used on E5-ENET-B or SLIC cards for the IP User Interface and FTP Retrieve and Replace features.
- **IPSHC69**–Used by E5-ENET-B and SLIC cards to support the IPS application when running on VxWorks69.



- MCPHC– The application GPL used on the E5-MCPM-B (Measurement Collection & Polling Module) and SLIC cards for the Measurements Platform feature.
- MCPHC69– Used by E5-MCPM-B and SLIC cards for the Measurements Platform feature when running on VxWorks69.
- **OAMHC**–The application GPL used by the **E5-MCAP** card for enhanced OAM functions.
- OAMHC69–Used by E5-MCAP cards for enhanced OAM functions, when running on VxWorks 69
- SCCP64–The 64-bit application GPL used on E5-SM8G-B and SLIC cards to support EPAP-based features and the LNP ELAP Configuration feature. If no EPAP-based or LNP ELAP Configuration feature is turned on and an E5-SM8G-B card is present, then the GPL processes normal global title translation traffic.
- SFAPP–Used by SLIC cards to support Stateful Firewall Application.
- SIP64—The 64-bit application GPL used on the E5-SM8G-B and SLIC cards to support a SIP stack of TCP.
- SS7HC The application GPL used by E5-E1T1-B and SLIC cards to support E1 and T1 signaling links.

Managing GPLs

Managing these GPLs consists of loading them onto the EAGLE from a removable media, downloading these GPLs to the appropriate cards in the EAGLE, then allowing the cards to run these GPLs. The GPLs can be in one of two states, trial and approved.

Note:

Refer to the Maintenance and Administration Subsystem section for more information about the control cards.

The approved GPL is the GPL that has been approved for use and the EAGLE should be running, unless otherwise advised by Oracle technical support. The approved GPL version number matches the version number of the GPL contained in the system release ID table.

A trial GPL is usually a duplicate of the approved GPL; it can also be a GPL that has not been approved for use and does not match with the version number in the system release ID table. The trial GPL is a GPL that the EAGLE should normally not be running.

The system release ID table contains the version numbers of the approved GPLs that the EAGLE should be running. The system release ID table is contained on the E5-**TDM**s (Terminal Disk Modules) and on the removable media containing the GPLs that are being loaded onto the EAGLE. The GPLs are loaded onto the EAGLE from a removable media. To get the GPLs from the removable media onto the EAGLE in the approved state, two commands are used, chg-gpl and act-gpl.

CHG-GPL Command

The chg-gpl command copies a GPL from the removable media to the E5-TDMs. The new GPL becomes the trial version on each of the E5-TDMs. This command also

copies the system release ID table from the removable media to the E5-TDMs. The chg-gpl command uses these parameters.

gpl - the GPL being loaded onto the EAGLE

 $\operatorname{ver}-\operatorname{the}$ version number of the GPL

audit – Specifies whether the active **MASP** system release version is to be audited every 90 seconds.

src – Specifies the source drive containing the GPL that is being copied. This parameter has two values.

- remove the removable media flash drive on the E5-MCAP card.
- usb This parameter is to be used by Oracle personnel only and cannot be used with the chg-gpl command.

If you are loading a GPL onto the EAGLE, the gpl and ver parameters must be specified with the chg-gpl command and a removable media containing the GPL being loaded must be in the removable media drive on the E5-MCAP card of the active MASP.

The audit parameter is required only when turning the GPL auditing on or off.

ACT-GPL Command

The act-gpl command changes the state of the trial GPL from "trial" to "approved." This is also referred to as activating the GPL. The state of the previously approved GPL is changed from "approved" to "trial."

The version of the GPL shown in the RELEASE column of the rtrv-gpl output (the GPL version in the system release ID table) is updated to the new approved version when this command is performed.

The act-gpl command uses these parameters:

gpl-the GPL being loaded onto the EAGLE

 $\operatorname{ver}-\operatorname{the}$ version number of the GPL

Displaying GPL Information

Two commands can be used to display the GPL information in the database, reptstat-gpl and rtrv-gpl. The rept-stat-gpl command shows the versions of the GPLs that are running on the cards in the EAGLE. The rtrv-gpl command shows the versions of the GPLs contained on the fixed disks.

REPT-STAT-GPL Command

The rept-stat-gpl command output contains these five columns and displays this information.

- GPL The GPLs contained on the TDMs (Terminal Disk Modules). The TDMs contain the fixed disks.
- CARD The cards that are running the GPLs
- RUNNING The version number of the GPLs the cards are running
- APPROVED The version numbers of the approved GPLs



TRIAL – The version numbers of the trial GPLs

The following is an example of the rept-stat-gpl command output.

```
rept-stat-gpl:loc=1103

tklc9010801 16-09-07 00:21:39 EST EAGLE 46.4.0.0.0-69.10.0

GPL Auditing ON

GPL CARD RUNNING APPROVED TRIAL

SS7HC 1103 139-010-000 139-010-000 139-010-000

BLMCAP 139-010-000 139-010-000 085-009-009
```

Command Completed.

The example rept-stat-gpl output shows that the card in slot 1103 is running the SS7HC GPL, version number 139-010-000, which is also the approved version of the SS7HC GPL. The trial version number of the SS7HC GPL is also 139-010-000.

You can display all the GPLs used by all the cards in the EAGLE except the flash (or communication) GPLs, a specific GPL, or all application and flash GPLs used by all the cards in the EAGLE. The flash GPLs are the BLMCAP, BLDC32, BLDC64, BLSLC32, BLSLC64, BLSLC932, and HIPR2 GPLs. The application GPLs are the other GPLs in the EAGLE.

If you specify the rept-stat-gpl command with no parameters, all the GPLs on all the cards in the EAGLE are displayed except for the communication GPLs, as shown in this example.

GPL	CARD	RUNNING	APPROVED	TRIAL
OAMH	C 1113	139-010-000	139-010-000	139-010-000
OAMH	C 1115	139-010-000	139-010-000	
139-010-	000			
SS7H	C 1103	139-010-000	139-010-000	139-010-000
SS7H	C 1104	139-010-000	139-010-000	139-010-000
SS7H	C 1107	139-010-000	139-010-000	139-010-000
SS7H	C 1108	139-010-000	139-010-000	139-010-000
SS7H	C 1203	139-010-000	139-010-000	139-010-000
SS7H	C 1207	139-010-000	139-010-000	139-010-000
SS7H	C 1208	139-010-000	139-010-000	139-010-000
SS7H	C 1213	139-010-000	139-010-000	139-010-000
SS7H	C 1303	139-010-000	139-010-000	139-010-000
SS7H	C 1304	139-010-000	139-010-000	139-010-000
SS7H	C 1307	139-010-000	139-010-000	139-010-000
SS7H	C 1308	139-010-000	139-010-000	139-010-000
SS7H	C 1313	139-010-000	139-010-000	139-010-000
SS7H	C 1314	139-010-000	139-010-000	139-010-000
GLSH	C 1102	139-010-000	139-010-000	139-010-000
ATMH	C 2102	139-010-000	139-010-000	139-010-000
ATMH	C 3306	139-010-000	139-010-000	139-010-000
ATMH	C 6101	139-010-000	139-010-000	139-010-000

tklc9010801 16-09-07 00:22:18 EST EAGLE 46.4.0.0.0-69.10.0 GPL Auditing ON



ATMHC	6102	139-010-000	139-010-000	139-010-000
IPSG	1101	139-010-000	139-010-000	139-010-000
IPSG	1105	139-010-000	139-010-000	139-010-000
IPSG	1106	139-010-000	139-010-000	139-010-000
IPSG	1201	139-010-000	139-010-000	139-010-000
IPSG	1211	139-010-000	139-010-000	139-010-000
IPSG	1301	139-010-000	139-010-000	139-010-000
IPSG	1305	139-010-000	139-010-000	139-010-000
IPSG	1306	139-010-000	139-010-000	139-010-000
MCPHC	1212	139-010-000	139-010-000	139-010-000
MCPHC	5302	139-010-000	139-010-000	139-010-000
ENUM64	2305	139-010-000	139-010-000	139-010-000
ENUM64	3105	139-010-000	139-010-000	139-010-000
ENUM64	3115	139-010-000	139-010-000	139-010-000
ENUM64	3117	139-010-000	139-010-000	139-010-000
DEIR64	3215	139-010-000	139-010-000	042-010-003
DEIR64	3217	139-010-000	139-010-000	042-010-003
DEIR64	3315	139-010-000	139-010-000	042-010-003

Command Completed.

If a specific GPL, including the communication GPLs, is specified, then all the cards running that GPL are displayed. For example, if the rept-stat-gpl:gpl=ss7hc command is entered, then all cards running the SS7HC GPL are displayed as shown in the following example.

tklc9010801 16-09-07 00:22:40 EST EAGLE 46.4.0.0.0-69.10.0 GPL Auditing ON

GPL	CARD	RUNNING	APPROVED	TRIAL
SS7HC	1103	139-010-000	139-010-000	139-010-000
SS7HC	1104	139-010-000	139-010-000	139-010-000
SS7HC	1107	139-010-000	139-010-000	139-010-000
SS7HC	1108	139-010-000	139-010-000	139-010-000
SS7HC	1203	139-010-000	139-010-000	139-010-000
SS7HC	1207	139-010-000	139-010-000	139-010-000
SS7HC	1208	139-010-000	139-010-000	139-010-000
SS7HC	1213	139-010-000	139-010-000	139-010-000
SS7HC	1303	139-010-000	139-010-000	139-010-000
SS7HC	1304	139-010-000	139-010-000	139-010-000
SS7HC	1307	139-010-000	139-010-000	139-010-000
SS7HC	1308	139-010-000	139-010-000	139-010-000
SS7HC	1313	139-010-000	139-010-000	139-010-000
SS7HC	1314	139-010-000	139-010-000	139-010-000

Command Completed.

If a communication GPL (BLMCAP) is specified with the rept-stat-gpl command, for example, rept-stat-gpl:gpl=blmcap, then all cards running the communication GPL are displayed. In the following example, all the cards running the



command. eagle1 16-09-09 18:53:40 MST EAGLE 46.4.0.0.0-69.8.0 GPL Auditing ON

BLMCAP GPL are displayed as the output for the rept-stat-gpl:gpl=blmcap

GPL	CARD	RUNNING	APPROVED	TRIAL
BLMCAP	1101	138-022-000 A	ALM 139-002-000	139-002-000
BLMCAP	1102	138-011-000 A	ALM 139-002-000	139-002-000
BLMCAP	1112	139-001-000 A	ALM 139-002-000	139-002-000
BLMCAP	1205	138-011-000 A	ALM 139-002-000	139-002-000
BLMCAP	1206	138-011-000 A	ALM 139-002-000	139-002-000
BLMCAP	1207	139-010-000 A	ALM 139-002-000	139-002-000

Command Completed.

If the display=all parameter is specified with the rept-stat-gpl command, then all GPLs, application and communication GPLs used by all the cards in the EAGLE are displayed as shown in these examples.

This example shows the output when the display=all parameter is specified. IMT and application GPL information is shown.:

```
tekelecstp 18-01-18 21:30:11 EST EAGLE 46.5.1.5.0-73.10.0
   rept-stat-gpl:display=all
   Command entered at terminal #18.
;
Command Accepted - Processing
   tekelecstp 18-01-18 21:30:11 EST EAGLE 46.5.1.5.0-73.10.0
   GPL Auditing ON
   GPL
              CARD
                        RUNNING
                                          APPROVED
                                                        TRIAL
   OAMHC
              1113
                        033-010-001
                                                        _____
                                          033-010-001
          BLMCAP
                        033-010-001
                                          033-010-001
                                                        033-010-001
                       033-010-001
   OAMHC
                                                        ---- *
              1115
                                          033-010-001
          BLMCAP
                       033-010-001
                                          033-010-001
                                                        033-010-001
   HIPR2
              1109
                       141-003-000 ALM
                                          143-005-000
                                                       143-005-000
   HIPR2
              1110
                       141-003-000 ALM
                                          143-005-000
                                                       143-005-000
   SFAPP
              1103
                       009-011-001
                                          009-011-001
                                                        033-010-000
          BLDC64
                       143-006-000 ALM
                                          000-000-000
                                                       033-010-001
   SS7HC
              1106
                       033-010-000
                                          033-010-000
                                                        033-010-000
          BLMCAP
                       077-005-000 ALM
                                          033-010-001
                                                        033-010-001
    IPSHC
              1112
                        033-010-000
                                          033-010-000
                                                        033-010-000
          BLIXP
                        077-005-000 ALM
                                          033-010-001
                                                        033-010-001
    SCCP64
              1107
                        033-010-000
                                          033-010-000
                                                        033-010-000
          BLDC64
                       064-011-000 ALM
                                          000-000-000
                                                       033-010-001
```

Command Completed.

;

Command Executed



If the loc parameter is specified with the rept-stat-gpl command, all the GPLs running on the specified card are displayed. For HC MIMs, this includes all non-activated flash GPLs, as shown in the following example.

```
eagle1 16-09-09 18:52:13 MST EAGLE 46.4.0.0.0-69.8.0

GPL Auditing ON

GPL CARD RUNNING APPROVED TRIAL

SS7HC 1102 139-006-000 139-006-000 139-008-000
```

Command Completed.

Notes:

BLMCAP

The display=all, gpl, and loc parameters cannot be specified in the same command.

139-002-000 +

139-002-000

139-002-000

If GPL auditing is on, a minor alarm is generated, and ALM is displayed for each GPL in the RUNNING column whose version does not match the version of the GPL shown in the system release ID table. The GPL versions in the system release ID table are shown in the RELEASE column of the rtrv-gpl command output.

If GPL auditing is off, the minor alarm is not generated, but ALM is displayed for each GPL whose version does not match the version of the GPL shown in the system release ID table. The detection, marking, and reporting of corrupt GPLs continues to be performed and is not affected by turning GPL auditing off.

If a GPL is not found, a version of "-----" is displayed.

If a card is inhibited, "-----" is displayed in the RUNNING column.

A plus (+) symbol appears in the output when any of the communication or flash GPLs are specified for the rept-stat-gpl command. The plus symbol indicates that the specified GPL currently running on the card has not yet been activated on the card.

RTRV-GPL Command

The ${\tt rtrv-gpl}$ command output contains these six columns and displays this information.

- GPL The GPLs contained on the TDMs.
- CARD The card location of the TDMs, either card locations 1114 or 1116
- RELEASE The version number of the GPL contained in the system release ID table.
- APPROVED The version numbers of the approved GPLs
- TRIAL The version numbers of the trial GPLs



• REMOVE TRIAL – The version number of the GPLs contained on the removable media. Entries in the REMOVE TRIAL column are shown only if the removable media is inserted into the removable media drive. If the removable media is not inserted in an E5-MCAP card, dashes are shown in the REMOVE TRIAL column. Dashes are displayed in the RELEASE, APPROVED, and TRIAL columns.

For E5-based control cards installed in the EAGLE installed in the E5-MCAP card of the active MASP (card location 1113), the following is an example of the rtrv-gpl command output. In this example, removable media is installed in the E5-MCAP card of the active MASP (card location 1113), shown by the GPL version number in the REMOVE TRIAL column for card location 1114. Removable media is not installed in the E5-MCAP card of the standby MASP (card location 1115), shown by the dashes in the REMOVE TRIAL column for card location 1116.

tklc9010801 16-09-07 00:26:49 EST EAGLE 46.4.0.0.0-69.10.0 GPL Auditing ON

	GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIA	L					
	SS7HC	1114	139-010-000	139-010-000	139-010-000	
139-	010-000					
	SS7HC	1116	139-010-000	139-010-000	139-010-000	
	SS7HC	1113				

You can display all the GPLs in the EAGLE or a specific GPL in the EAGLE.

If you specify the rtrv-gpl command with no parameters, all the GPLs in the EAGLE are displayed as shown in this example. This is an example of the rtrv-gpl output when E5-based control cards are installed in the EAGLE:

tklc9010801 16-09-07 00:28:42 EST EAGLE 46.4.0.0.0-69.10.0 GPL Auditing ON

	GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIA	AL					
	BLMCAP	1114	139-010-000	139-010-000	085-009-012	
085-	-009-012					
	BLMCAP	1116	139-010-000	139-010-000	085-009-012	
085-	-009-012					
	BLMCAP	1113				
	OAMHC	1114	139-010-000	139-010-000	139-010-000	
139-	-010-000					
	OAMHC	1116	139-010-000	139-010-000	139-010-000	
139-	-010-000					
	OAMHC	1113				
	HIPR2	1114	139-009-000	139-009-000	139-009-000	
139-	-009-000					
	HIPR2	1116	139-009-000	139-009-000	139-009-000	
139-	-009-000					



HIPR2	1113			
SS7HC	1114	139-010-000	139-010-000	139-010-000
SS7HC	1116	139-010-000	139-010-000	139-010-000
SS7HC	1113			
GLSHC	1114	139-010-000	139-010-000	139-010-000
GLSHC	1116	139-010-000	139-010-000	139-010-000
GLSHC	1113			
SCCP64	1114	139-010-000	139-010-000	139-010-000
SCCP64	1116	139-010-000	139-010-000	139-010-000
SCCP64	1113			
ERTHC	1114	139-010-000	139-010-000	139-010-000
ERTHC	1116	139-010-000	139-010-000	139-010-000
ERTHC	1113			
IPSHC	1114	139-010-000	139-010-000	139-010-000
IPSHC	1116	139-010-000	139-010-000	139-010-000
IPSHC	1113			
ATMHC	1114	139-010-000	139-010-000	139-010-000
ATMHC	1116	139-010-000	139-010-000	139-010-000
ATMHC	1113			
IPSG 139-010-000	1114	139-010-000	139-010-000	139-010-000
IPSG 139-010-000	1116	139-010-000	139-010-000	139-010-000
IPSG	1113			
PKTGHC 169-010-000	1114	169-010-000	169-010-000	169-010-000
PKTGHC 169-010-000	1116	169-010-000	169-010-000	169-010-000
PKTGHC	1113			
BLMCAP 139-010-000	1114	139-010-000	139-010-000	085-009-009
BLMCAP 139-010-000	1116	139-010-000	139-010-000	085-009-009
BLMCAP	1113			



MCPHC 139-010-000	1114	139-010-000	139-010-000	139-010-000
MCPHC 139-010-000	1116	139-010-000	139-010-000	139-010-000
MCPHC	1113			
SIPHC 139-010-000	1114	139-010-000	139-010-000	139-010-000
SIPHC 139-010-000	1116	139-010-000	139-010-000	139-010-000
SIPHC	1113			
DEIR64 139-010-000	1114	139-010-000	139-010-000	139-010-000
DEIR64 139-010-000	1116	139-010-000	139-010-000	139-010-000
DEIR64	1113			
ENUM64 139-010-000	1114	139-010-000	139-010-000	139-010-000
ENUM64 139-010-000	1116	139-010-000	139-010-000	139-010-000
ENUM64	1113			
PKTG64 169-010-000	1114	169-010-000	169-010-000	169-010-000
PKTG64 169-010-000	1116	169-010-000	169-010-000	169-010-000
PKTG64	1113			
BLDC64 139-010-000	1114	139-010-000	139-010-000	085-009-006
BLDC64 139-010-000	1116	139-010-000	139-010-000	085-009-006
BLDC64	1113			
SCCP64 139-010-000	1114	139-010-000	139-010-000	139-010-000
SCCP64 139-010-000	1116	139-010-000	139-010-000	139-010-000
SCCP64	1113			
BLSLC32 139-010-000	1114	139-010-000	139-010-000	085-009-009
BLSLC32 139-010-000	1116	139-010-000	139-010-000	085-009-009
BLSLC32	1113			
BLSLC64 139-010-000	1114	139-010-000	139-010-000	042-010-003
BLSLC64 139-010-000	1116	139-010-000	139-010-000	042-010-003
BLSLC64	1113			



SIP64	1114	139-010-000	139-010-000	139-010-000
SIP64	1116	139-010-000	139-010-000	139-010-000
139-010-000 SIP64	1113			
	1114	139-010-000	139-010-000	042-010-003
139-010-000	TTTA	139-010-000	139-010-000	042-010-005
DEIR64	1116	139-010-000	139-010-000	042-010-003
DEIR64	1113			
ENUM64	1114	139-010-000	139-010-000	139-010-000
139-010-000				
ENUM64	1116	139-010-000	139-010-000	139-010-000
139-010-000				
ENUM64	1113			
;				

Command Executed

In this example, removable media is installed in both MASPs.

If a specific GPL is specified, then only that GPL is displayed. For example, if the rtrv-gpl:gpl=ss7hc command is entered, then only the SS7HC GPL is displayed as shown in the following example.

```
eagle1 16-09-12 12:03:53 MST EAGLE 46.4.0.0.0-69.8.0
GPL Auditing ON
```

GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIAL					
SS7HC	1114	139-010-000	139-010-000	139-010-000	
139-010-00)				
SS7HC	1116	139-010-000	139-010-000	139-010-000	
139-010-00)				
SS7HC	1113				
	_				

If GPL auditing is on, a minor alarm is generated, and ALM is displayed for each approved GPL version that does not match the GPL version shown in the RELEASE column. If GPL auditing is off, the minor alarm is not generated, but ALM is displayed for each GPL version that does not match the GPL version shown in the RELEASE column. The detection, marking, and reporting of corrupt GPLs continues to be performed and is not affected by turning GPL auditing off. The GPL version shown in the RELEASE column is updated when the act-gpl command is performed.

If a GPL is not found, a version of "-----" is displayed.

Loading a GPL onto the System

This section gives a general overview as to how a GPL is loaded onto the EAGLE to be used by the applicable cards. The requirements and steps for each GPL are

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different and are detailed in the procedures contained in this chapter. The rtrv-gpl examples shown in this section are examples that are shown when E5-based control cards are installed in the EAGLE.

1. A removable media is inserted into the removable media drive on the E5-MCAP card of the active MASP. If a specific GPL is displayed with the rtrv-gpl command, for example the SS7HC GPL, the following would be displayed.

```
eagle1 16-09-09 18:30:48 MST EAGLE 46.4.0.0.0-69.6.0
   GPL Auditing ON
   GPL
           CARD RELEASE
                           APPROVED
                                         TRIAL
REMOVE TRIAL
   SS7HC
          1114 139-006-000 139-006-000
                                         139-004-000
_____
   SS7HC
           1116 139-006-000 139-006-000
                                         139-004-000
139-008-000
   SS7HC 1115 ----- -----
                                         _____
_____
;
```

Command Executed

Displaying the SS7HC GPL with the rept-stat-gpl command would display all the cards running the SS7HC GPL, as shown in this example.

eagle1 16-0 GPL Aud	9-09 18:31:3 liting ON	17 MST EAGLE 46.4	4.0.0.0-69.6.0	
GPL	CARD	RUNNING	APPROVED	TRIAL
SS7HC	1102	139-006-000	139-006-000	
139-004-000)			
SS7HC	1205	139-006-000	139-006-000	
139-004-000)			
SS7HC	1206	139-006-000	139-006-000	
139-004-000)			
SS7HC	1207	139-006-000	139-006-000	
139-004-000)			

Command Completed

- 2. When the chg-gpl command is executed, the specific GPL is copied from the removable media to the fixed disks. The specific GPL and the version number of the GPL on the removable media must be specified with the chg-gpl command. The version number is found in the REMOVE TRIAL column of the rtrv-gpl output. For this example the chg-gpl :gpl:SS7HC:ver=139-008-000 command would be entered at the EAGLE terminal.
- 3. The new version of the GPL is now the trial version of the GPL as shown in the examples of the rtrv-gpl and rept-stat-gpl outputs.



```
rtrv-gpl:gpl=ss7hc
   eagle1 16-09-09 18:33:48 MST EAGLE 46.4.0.0.0-69.6.0
       GPL Auditing ON
                 CARD RELEASE
                                   APPROVED
                                                    TRIAL
       GPL
   REMOVE TRIAL
                 1114 139-006-000 139-006-000
                                                    139-008-000
       SS7HC
   _____
                 1116 139-006-000 139-006-000
                                                    139-008-000
       SS7HC
   139-008-000
       SS7HC
                1115 -----
                                                    _____
   _____
   rept-stat-gpl:gpl=ss7hc
   eagle1 16-09-09 18:34:26 MST EAGLE 46.4.0.0.0-69.6.0
       GPL Auditing ON
                           RUNNING
                                                            TRIAL
       GPL
                  CARD
                                              APPROVED
       SS7HC
                  1102
                           139-006-000
                                              139-006-000
   139-008-000
                           139-006-000
       SS7HC
                  1205
                                              139-006-000
   139-008-000
       SS7HC
                  1206
                           139-006-000
                                              139-006-000
   139-008-000
       SS7HC
                 1207
                           139-006-000
                                              139-006-000
   139-008-000
       Command Completed.
4. To make the trial version of the GPL the approved version, the act-gpl
   command is executed after the GPL has been copied from the removable media
   with the chg-gpl command (steps 1 to 3). The trial and approved versions of the
   specific GPL are swapped as shown in these rtrv-gpl and rept-stat-gpl
   output examples.
   rtrv-gpl:gpl=ss7hc
   eagle1 16-09-09 18:35:31 MST EAGLE 46.4.0.0.0-69.8.0
       GPL Auditing ON
```

GPL	CARD	RELEASE	APPROVED	TRIAL
REMOVE TRIAL				
SS7HC	1114	139-008-000	139-008-000	139-006-000
SS7HC	1116	139-008-000	139-008-000	139-006-000
139-008-000				



SS7HC 1115 ----- ----- -----

The system release ID table is updated with the version of the GPL specified with the act-gpl command. This GPL version is shown in the RELEASE column of the rtrv-gpl output after the act-gpl command is performed.

The ALM indicator is not displayed in the rtrv-gpl output because the approved version of the GPL matches the version in the system release ID table.

rept-stat-gpl:gpl=ss7hc

```
eagle1 16-09-09 18:35:52 MST EAGLE 46.4.0.0.0-69.8.0
   GPL Auditing ON
   GPL
               CARD
                         RUNNING
                                            APPROVED
                                                          TRIAL
                                            139-008-000
   SS7HC
               1102
                         139-006-000 ALM
139-006-000
               1205
                         139-006-000 ALM
    SS7HC
                                            139-008-000
139-006-000
                         139-006-000 ALM
    SS7HC
               1206
                                            139-008-000
139-006-000
               1207
                         139-006-000 ALM
                                            139-008-000
    SS7HC
139-006-000
```

Command Completed.

The ALM indicator is displayed for the cards that are running the version of the GPL that does not match the version in the system release ID table (shown in the RELEASE column of the rtrv-gpl output). In this example, the cards are running the trial version which does not match the version in the system release ID table.

5. To load the card with the new version of the application GPL, the card must be inhibited with the inh-card command, then placed back into service with the alw-card command. To load the approved version of the GPL onto the card, the code=appr parameter can be specified with the alw-card command. It is not necessary to specify the code=appr parameter to load the approved version of the GPL. Entering the alw-card command without the code parameter loads the approved version of the GPL onto the GPL onto the GPL onto the GPL onto the GPL.

If you wish to load the trial version of the GPL onto the card, the code=trial parameter must be specified with the alw-card command.

To load the card with the new version of the flash GPL, the card must be inhibited with the inh-card command and flashed with the init-flash command. The new flash GPL on the card should be activated with the act-flash command and then placed back into service with the alw-card command.

The following examples show the outputs of the rtrv-gpl and rept-stat-gpl commands after the card has been reloaded. The outputs will vary depending on whether or not the new version of the GPL has been made the approved version with the act-gpl command, and which version (trial or approved) of the GPL is loaded onto the card.

Example 1



The new GPL is the APPROVED version and the card 1102 was reloaded with the APPROVED version of the GPL. Card 1102 is now running the APPROVED and RELEASE versions of the GPL. The ALM indicator is not shown in the rtrvgpl output and is not shown for card 1102 in rept-stat-gpl output. The ALM indicator is shown for cards 1205, 1206, and 1207 because they are not running the RELEASE version of the GPL.

RTRV-GPL Output

eagle1 16-09-09 18:36:26 MST EAGLE 46.4.0.0.0-69.8.0 GPL Auditing ON

GPL	CARD	RELEASE	APPROVED	TRIAL
REMOVE TRIAL SS7HC	1114	139-008-000	139-008-000	139-006-000
		139 000 000	100 000 000	137 000 000
SS7HC	1116	139-008-000	139-008-000	139-006-000
SS7HC	1115			

REPT-STAT-GPL Output

eagle1 16-09-09 18:38:34 MST EAGLE 46.4.0.0.0-69.8.0 GPL Auditing ON

	GPL	CARD	RUNNING	APPROVED	TRIAL
	SS7HC	1102	139-008-000	139-008-000	
139-	-006-000				
	SS7HC	1205	139-006-000 ALM	139-008-000	
139-	-006-000				
	SS7HC	1206	139-006-000 ALM	139-008-000	
139-	-006-000				
	SS7HC	1207	139-006-000 ALM	139-008-000	
139-	-006-000				

Command Completed.

Example 2

The new GPL is the APPROVED version and the card 1102 was reloaded with the TRIAL version of the GPL. The card is now running the TRIAL version of the GPL which is not the RELEASE version of the GPL. The ALM indicator is not shown in the rtrv-gpl output, but is shown for all the cards in rept-stat-gpl output because they are not running the RELEASE version of the GPL.

RTRV-GPL Output

eagle1 16-09-09 18:41:06 MST EAGLE 46.4.0.0.0-69.8.0 GPL Auditing ON

GPL CARD RELEASE APPROVED TRIAL



SS7HC	1115			
139-008-000	1110	139 000 000	133 000 000	137 000 000
SS7HC	1116	139-008-000	139-008-000	139-006-000
SS7HC	1114	139-008-000	139-008-000	139-006-000
REMOVE TRIAL				

REPT-STAT-GPL Output

eagle1 16-09-09 18:41:59 MST EAGLE 46.4.0.0.0-69.8.0 GPL Auditing ON

	GPL	CARD	RUNNING		APPROVED	TRIAL
	SS7HC	1102	139-006-000	ALM	139-008-000	
139-	006-000					
	SS7HC	1205	139-006-000	ALM	139-008-000	
139-	006-000					
	SS7HC	1206	139-006-000	ALM	139-008-000	
139-	006-000					
	SS7HC	1207	139-006-000	ALM	139-008-000	
139-	006-000					

Command Completed.

Example 3

The new GPL is the TRIAL version and the card 1102 was reloaded with the TRIAL version of the GPL. Card 1102 is now running the TRIAL version of the GPL, but not the RELEASE version of the GPL. The ALM indicator is not shown in the rtrv-gpl output because the RELEASE version of the GPL has not changed. The ALM indicator is shown for card 1102 in the rept-stat-gpl output because card 1102 is not running the RELEASE version of the GPL.

RTRV-GPL Output

eagle1 16-09-09 18:43:39 MST EAGLE 46.4.0.0.0-69.6.0 GPL Auditing ON

GPL	CARD	RELEASE	APPROVED	TRIAL
REMOVE TRIAL SS7HC	1114	139-006-000	139-006-000	139-008-000
SS7HC	1116	139-006-000	139-006-000	139-008-000
SS7HC	1115			

REPT-STAT-GPL Output

eagle1 16-09-09 18:44:12 MST EAGLE 46.4.0.0.0-69.6.0



GPL Audit	ing ON			
GPL SS7HC	CARD 1102	RUNNING 139-008-000 ALM	APPROVED 139-006-000	TRIAL
139-008-000 SS7HC	1205	139-006-000	139-006-000	
SS7HC 139-008-000	1206	139-006-000	139-006-000	
SS7HC 139-008-000	1207	139-006-000	139-006-000	

Command Completed.

Example 4

The new GPL is the TRIAL version and the card 1102 was reloaded with the APPROVED version of the GPL. Card 1102 is now running the APPROVED version of the GPL which is the RELEASE version of the GPL. The ALM indicator is not shown in the rtrv-gpl output, and for all the cards in rept-stat-gpl output because they are running the RELEASE version of the GPL.

RTRV-GPL Output

eagle1 GPL Aud	16-09-09 iting O	18:46:20 MST N	EAGLE 46.4.0	.0.0-69.6.0
GPL REMOVE TRIA	CARD	RELEASE	APPROVED	TRIAL
SS7HC	1114	139-006-000	139-006-000	139-008-000
SS7HC 139-008-000	1116	139-006-000	139-006-000	139-008-000
SS7HC	1115			

REPT-STAT-GPL Output

eagle1 16-09-09 18:46:41 MST EAGLE 46.4.0.0.0-69.6.0 GPL Auditing ON

	GPL	CARD	RUNNING	APPROVED	TRIAL
	SS7HC	1102	139-006-000	139-006-000	
139-	008-000				
	SS7HC	1205	139-006-000	139-006-000	
139-	008-000				
	SS7HC	1206	139-006-000	139-006-000	
139-	008-000				
	SS7HC	1207	139-006-000	139-006-000	
139-	008-000				

Command Completed



Updating the BLMCAP and OAMHC GPLs

This procedure updates the BLMCAP and OAMHC GPLs on the E5-MCAP cards in card locations 1113 and 1115 as a trial version from the removable media, then making the trial version of these GPLs the approved version of these GPLs. The **E5-MCAP** card in card locations 1113 and 1115 is used in combination with the **TDM** to form the **Maintenance and Administration Subsystem** Processor (**MASP**).

The BLMCAP GPL is updated using the chg-gpl, act-gpl, and flash-card commands.

Caution:

The flash-card command cannot be entered if the IMT Rate Change sequence or the Extended Bit Error Rate Test (**BERT**) is being performed.

The OAMHC GPL is updated using the chg-gpl command.

Caution:

This procedure can be performed only on EAGLEs that contain E5-based control cards. Refer to Maintenance and Administration Subsystem for more information about the control cards.

If any card is not running the version of the **GPL** shown in the RELEASE column of the rtrv-gpl output, the indicator ALM is displayed next to the **GPL** version in the RUNNING column of the rept-stat-gpl output, and next to the **GPL** version in the APPROVED column in the rtrv-gpl output.

Removable media containing the BLMCAP and OAMHC GPLs that are being updated is required.

1. Verify the control cards that are installed in the EAGLE.

Refer to Maintenance and Administration Subsystem for information about the control cards.

If E5-based control cards are installed in the EAGLE, continue the procedure with 2.

2. Check the E5-MASPs for removable media.

If removable media is installed in one of the E5-MASPs, continue the procedure with 4.

If removable media is not installed in either E5-MASPs, continue the procedure with $\mathbf{3}$.

3. Verify the active MASP by entering the rept-stat-db command.



This is an example of the possible output.

eag	lel 16-09	9-09	17:51:57	MST	EAGLI	E 46.4.C	0.0.69.	6.0	
	DATABASI	E STA	ATUS: >>	OK <<					
		TDM	1114 (S	TDBY)			TDM	1116 (ACTV)
		С	LEVEL	TIME	LAST	BACKUP	С	LEVEL	TIME
LAST	Г ВАСКИР								
	FD BKUP	Y	1	-		-	Y	1	
-	-								
	FD CRNT	Y	93				Y	93	
		MCAI	P 1113				MCAP	1115	
	RD BKUP	-	-	-		-	Y	1	
-	-								
	USB BKP	-	-	-		-	-	-	
-	-								

If removable media is installed in the active MASP, continue the procedure with 4.

If removable media is not installed in the active MASP, insert the removable media in the removable media drive in the active MASP. For more information about inserting removable media in the removable media drive, refer to Removable USB Drive. After the removable media has been inserted in the removable media drive in the active MASP, continue the procedure with 4.

- Display the BLMCAP and OAM HC GPLs on the fixed disk and on the removable media using the rtrv-gpl command with the gpl parameter value equal to the GPL being updated. Perform these substeps.
 - a. Display the BLMCAP GPL by entering this command.

rtrv-gpl:gpl=blmcap

This is an example of the possible output.

eagle1 16-09-09 18:28:48 MST EAGLE 46.4.0.0.0-69.6.0 GPL Auditing ON CARD RELEASE GPL APPROVED TRIAL REMOVE TRIAL BLMCAP 1114 139-005-000 139-005-000 139-005-000 _____ BLMCAP 1116 139-005-000 139-005-000 139-005-000 139-008-000 BLMCAP 1115 -----_____

b. Display the OAMHC GPL by entering this command.

rtrv-gpl:gpl=oamhc



This is an example of the possible output.

eagle1 16-09-09 18:30:03 MST EAGLE 46.4.0.0.0-69.6.0 GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL OAMHC 1114 139-006-000 139-006-000 _____ OAMHC 1116 139-006-000 139-006-000 139-008-000 139-008-000 OAMHC 1115 ----- -----_____ -----

If the version of either **GPL** shown in the REMOVE TRIAL column of the rtrvgpl output is not the version that is to be loaded onto the cards, remove the removable media from the active MASP.

Insert the removable media that contains the GPLs that are being updated into the removable media drive in the active MASP. If 3 was performed, repeat this step. If 3 was not performed, repeat this procedure from 3.

For more information about inserting removable media in the removable media drive, or removing removable media from the removable media drive, refer to Removable USB Drive.

If the versions of the GPLs shown in the REMOVE TRIAL column of the rtrvgpl output are the versions that are to be loaded onto the cards, continue the procedure with 5.

- 5. Change the BLMCAP and OAMHC GPLs using the chg-gpl command and specifying the value for the trial BLMCAP and OAMHC GPLs shown in the REMOVE TRIAL column in the output of the rtrv-gpl command (in 4). Perform these substeps.
 - a. For the BLMCAP GPL in this example, enter this command.

chg-gpl:gpl=blmcap:ver=139-008-000

These messages should appear.

eagle1 16-09-09 18:47:55 MST EAGLE 46.4.0.0.0-69.6.0
BLMCAP upload to 1116 completed
BLMCAP upload to 1114 completed
System Release ID table upload to 1116 completed
System Release ID table upload to 1114 completed

b. For the OAMHC GPL in this example, enter this command.

```
chg-gpl:gpl=oamhc:ver=139-008-000
```

These messages should appear.

eagle1 16-09-09 18:48:30 MST EAGLE 46.4.0.0.0-69.6.0 OAMHC upload to 1116 completed

OAMHC upload to 1114 completed System Release ID table upload to 1116 completed System Release ID table upload to 1114 completed

6. Activate the trial BLMCAP **GPL**, using the act-gpl command and specifying the name and version of the trial BLMCAP **GPL** specified in Substep a in 5. Enter this command.

act-gpl:gpl=blmcap:ver=139-008-000

These messages should appear.

eagle1 16-09-09 18:48:53 MST EAGLE 46.4.0.0.0-69.8.0 BLMCAP activate on 1116 completed BLMCAP activate on 1114 completed

- 7. Verify that the trial BLMCAP and OAM HC GPLs have been made the approved GPLs using the rtrv-gpl command. Perform these substeps.
 - a. For the BLMCAP GPL, enter the rtrv-gpl:gpl=blmcap command.

This is an example of the possible output.

b. For the OAMHC GPL, enter the rtrv-gpl:gpl=oamhc command.

This is an example of the possible output.

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 GPL Auditing ON

 GPL
 CARD
 RELEASE
 APPROVED
 TRIAL

 REMOVE TRIAL
 0AMHC
 1114
 139-008-000
 139-008-000
 139-005-000

 0AMHC
 1116
 139-008-000
 139-008-000
 139-005-000

 0AMHC
 1116
 139-008-000
 139-008-000
 139-005-000

 0AMHC
 1115
 ----- -----



- 8. Verify the GPLs that are running on the E5-MCAP cards by performing these substeps.
 - a. For the BLMCAP GPL, enter the rept-stat-gpl:gpl=blmcap command. This is an example of the possible output.

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 GPL Auditing ON

 GPL
 CARD
 RUNNING
 APPROVED
 TRIAL

 BLMCAP
 1113
 139-005-000
 ALM
 139-008-000
 139-005-000

 BLMCAP
 1115
 139-005-000
 ALM
 139-008-000
 139-005-000

Command Completed

The flash-card command will load only the BLMCAP GPLs whose approved versions are different from the versions that the card is running. The version of the BLMCAP GPL that the card is running is shown in the RUNNING column in the rept-stat-gpl output. The approved version of the BLMCAP GPL is shown in the APPROVED column of the rept-stat-gpl output. If the running and approved versions of a BLMCAP GPL are the same, the flash-card command will not load that BLMCAP GPL.

b. For the OAMHC GPL, enter the rept-stat-gpl:gpl=oamhc command.

This is an example of the possible output.

 eagle1
 16-09-09
 18:49:10
 MST
 EAGLE
 46.4.0.0.0-69.8.0

 GPL
 CARD
 RUNNING
 APPROVED
 TRIAL

 OAMHC
 1113
 139-005-000
 ALM
 139-008-000
 139-005-000

 OAMHC
 1115
 139-005-000
 ALM
 139-008-000
 139-005-000

 Command
 Completed
 Completed
 Completed
 Completed

9. Display the terminal configuration in the database with the rtrv-trm command.

All the SEAS terminals must be placed out of service in order to load the BLMCAP and OAMHC GPLs onto the E5-MCAP cards. The SEAS terminals are shown in the output with the entry SEAS in the TYPE field. This is an example of the possible output. In this example, the SEAS terminals are terminals 18 and 27.

eagle	el 16-09-	-09 18:49:10	MST	EAGLE 4	46.4.0	.0.0-69.8.0
TRM	TYPE	COMM	FC	TMOUT	MXINV	DURAL
1	VT320	9600-7-E-1	SW	30	5	99:59:59
2	KSR	9600-7-E-1	HW	30	5	INDEF
3	PRINTER	4800-7-E-1	HW	30	0	00:00:00
4	VT320	2400-7-E-1	BOTH	30	5	00:30:00
5	VT320	9600-7-0-1	NONE	30	5	00:00:30
6	VT320	9600-7-0-1	NONE	30	5	00:00:30
7	PRINTER	9600-7-N-2	HW	30	5	00:30:00
8	KSR	19200-7-E-2	BOTH	30	5	00:30:00
9	VT320	9600-7-0-1	NONE	30	5	00:00:30
10	VT320	9600-7-E-1	HW	30	5	00:30:00
11	VT320	4800-7-E-1	HW	30	5	00:30:00

12	PRINTER	9600-7-E-1	HW	30	4	00:30:00
13	VT320	9600-7-0-1	NONE	30	5	00:30:00
14	VT320	9600-7-E-2	SW	30	8	00:30:00
15	VT320	9600-7-N-2	HW	30	5	00:30:00
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00
TRM	TYPE	LOC		TMOUT	MXIN	/ DURAL
17	TELNET	1303		60	5	00:30:00
18	SEAS	1201		60	5	00:30:00
19	TELNET	1303		60	5	00:30:00
20	TELNET	1303		60	5	00:30:00
21	TELNET	1303		60	5	00:30:00
22	TELNET	1303		60	5	00:30:00
23	TELNET	1303		60	5	00:30:00
24	TELNET	1303		60	5	00:30:00
25	TELNET	1203		60	5	00:30:00
26	TELNET	1203		60	5	00:30:00
27	SEAS	1203		60	5	00:30:00
28	TELNET	1203		60	5	00:30:00
39	TELNET	1203		60	5	00:30:00
30	TELNET	1203		60	5	00:30:00
31	TELNET	1203		60	5	00:30:00
32	TELNET	1203		60	5	00:30:00
33	TELNET	1208		60	5	00:30:00
34	TELNET	1208		60	5	00:30:00
35	TELNET	1208		60	5	00:30:00
36	TELNET	1208		60	5	00:30:00
37	TELNET	1208		60	5	00:30:00
38	TELNET	1208		60	5	00:30:00
39	TELNET	1208		60	5	00:30:00
40	TELNET	1208		60	5	00:30:00

Note:

The rtrv-trm command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrvtrm command, see the rtrv-trm command description in *Commands User's Guide*.

If SEAS terminals are shown in the rtrv-trm command output, continue the procedure with 10.

If no SEAS terminals are shown in the rtrv-trm command output, perform one of these steps to continue the procedure.

- If the rept-stat-db command in 3 was not performed, continue the procedure with 13.
- If the rept-stat-db command in 3 was performed, continue the procedure with 14.
- **10.** Display the status of the terminals with the rept-stat-trm command with the terminal number of the SEAS terminals.

For this example, enter these commands.



rept-stat-trm:trm=18

This is an example of the possible output.

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 TRM PST SST AST 18 IS-NR Active -----Command Completed.

rept-stat-trm:trm=27

This is an example of the possible output.

 eagle1
 16-09-09
 18:49:10
 MST
 EAGLE
 46.4.0.0.0-69.8.0

 TRM
 PST
 SST
 AST

 27
 IS-NR
 Active

 Command
 Completed.

11. Place the SEAS terminals out of service using the rmv-trm command with the number of the terminal displayed in **10** whose state is not OOS-MT-DSBLD.

The force=yes parameter must be used when placing the last SEAS terminal out of service. For this example, enter these commands.

For this example, enter these commands.

rmv-trm:trm=18
rmv-trm:trm=27:force=yes

If the status of the SEAS terminals shown in the PST field in 10 is **OOS-MT-DSBLD** (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

This message should appear when each of these commands have successfully completed.

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 Inhibit message sent to terminal

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 Command Completed.

12. Change the terminal type of the SEAS terminals to **NONE** with the chg-trm command, the type=none parameter, and with the values of the SEAS terminals used in 11.

For this example, enter these commands.

chg-trm:trm=18:type=none

chg-trm:trm=27:type=none



This message should appear when these commands have successfully completed.

```
eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
CHG-TRM: MASP B - COMPLTD
```

Continue the procedure with by performing one of these steps.

- If the rept-stat-db command in 3 was not performed, continue the procedure with 13.
- If the rept-stat-db command in 3 was performed, continue the procedure with 14.
- To load the BLMCAP and OAMHC GPLs, they must be loaded on the standby MASP (E5-MCAP) first.

To determine which **MASP** is active, enter the rept-stat-db command. This is an example of the possible output.

eagle1 16-09-09	9 18:49:10 MST	EAGLE 46.	4.0.0	.0-69.8.0	
DATABASE STATUS	S: >> OK <<				
E5TDM 1	1114 (STDBY)]	E5TDM 111	б (ACTV)
C LEV	VEL TIME LA	AST BACKUP	С	LEVEL	TIME LAST
BACKUP					
FD BKUP Y	36 09-02-19	09:38:25 GM	т ү	36	09-02-19
09:38:25 GMT					
FD CRNT Y	39		Y	39	
E5MCAP	1113		1	E5MCAP 11	15
RD BKUP	-	-	Y	36	09-02-19
09:27:17 GMT					
USB BKP	-	-	Y	3	09-02-07
01:11:22 GMT					

The output of the rept-stat-db command shows which **MASP** is active with the indicator (ACTV) following the **TDM** card location. The indicator (STDBY) following the **TDM** card location shows which **MASP** is standby.

For this example, the **MASP** associated with **TDM** 1116 is active and the **MASP** associated with **TDM** 1114 is standby.

14. Using the outputs of 8 and either 3 or 13 as a guide, place the E5-MCAP card making up the standby MASP card out of service using the rmv-card command.

For this example, enter this command.

rmv-card:loc=1113



When this command has successfully completed, this message should appear.

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 Card has been inhibited.

15. Load the approved version of the BLMCAP **GPL**s onto the card inhibited in 14 using the flash-card command with the code=appr parameter.

Caution:

The flash-card command cannot be entered if the IMT Rate Change sequence or the Extended Bit Error Rate Test (**BERT**) is being performed.

The flash-card command will load only those BLMCAP **GPL**s whose approved versions are different from the versions that the card is running. The version of the BLMCAP **GPL** that the card is running is shown in the RUNNING column in the rept-stat-gpl output. The approved version of the BLMCAP **GPL** is shown in the APPROVED column of the rept-stat-gpl output. If the running and approved versions of an BLMCAP **GPL** are the same, the flash-card command will not load that BLMCAP **GPL**.

For this example, enter this command.

flash-card:code=appr:loc=1113

When this command has successfully completed, these messages should appear.

```
eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
   Flash Card: FLASH GPL(s) required to be downloaded on card 1113
      BLMCAP
             : Running version 134-015-000 Expected version
134-016-000
;
    eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
   Flash Card: Downloading BLMCAP on card 1113
   Flash Card: Card(s) will reset after the flash GPL download.
;
    eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
   Flash Card: Card 1113 download BLMCAP complete.
;
    eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
   Flash Card: FLASH GPL(s) required to be activated on card 1113
             : Running inactive version 134-016-000
      BLMCAP
```



;
```
eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
Flash Card: Activating BLMCAP on card 1113
;
eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
Flash Card: Card 1113 activation BLMCAP complete.
;
eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
Command Completed.
;
```

The E5-MCAP card specified in the flash-card command will be re-initialized when the BLMCAP **GPL** download is complete.

16. Put the card that was taken out of service in 14 back into service using the rst-card command.

The rst-card command also loads the approved version of the BLMCAP and OAMHC GPLs onto the card.

For this example, enter this command.

rst-card:loc=1113

When this command has successfully completed, this message should appear.

```
eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 Card has been allowed.
```

17. Verify that the BLMCAP and OAMHC GPLs from 15 have been loaded and that the card has returned to its in-service normal (IS-NR) state using the rept-statcard command.

For this example, enter this command.

rept-stat-card:loc=1113

This is an example of the possible output.

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 CARD VERSION TYPE PST SST GPL AST 1113 139-008-000 E5MCAP OAMHC IS-NR Active ____ ALARM STATUS = No Alarms. BLMCAP GPL version = 139-008-000 IMT BUS A = Conn IMT BUS B = Conn CURRENT TEMPERATURE = 30C (86F) = 33C (92F) PEAK TEMPERATURE: [02-01-05 07:18] Command Completed.



Note:

If the versions of the BLMCAP or OAMHC GPLs shown in the reptstat-card command output are not the versions specified in 6, contact the Customer Care Center. Refer to My Oracle Support (MOS) for the contact information. The reminder of this procedure should not be performed.

18. To load the new BLMCAP and OAMHC GPLs onto the E5-MCAP card making up the active MASP, enter the init-card command specifying the location of the E5-MCAP card making up active MASP. For this example, enter the initcard:loc=1115 command. This message should appear.

```
eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0
Init Card command issued to card 1115
```

After this step has been performed, repeat steps 14, 15, 16, and 17 using the card location specified in this step as the loc parameter value in these steps. After these steps have been performed, continue the procedure with either 19 or 21 based on the following conditions:

- If SEAS terminals were not shown in the rtrv-trm command output in 9, continue the procedure with 21.
- If SEAS terminals were shown in the rtrv-trm command output in 9, continue the procedure with 19.
- **19.** Change the terminal type of the terminals that were changed to NONE in **12** to the terminal type SEAS with the chg-trm command and the type=seas parameter.

The terminal type is shown in the TYPE field in the rtrv-trm command output in 9.

For this example, enter these commands.

chg-trm:trm=18:type=seas

chg-trm:trm=27:type=seas

This message should appear when these commands have successfully completed.

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 CHG-TRM: MASP B - COMPLTD

20. Put the SEAS terminals back into service using the rst-trm command with the number of the terminals specified in 19.

rst-trm:trm=18

rst-trm:trm=27



This message should appear when each of these commands have successfully completed.

eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 Allow message sent to terminal eagle1 16-09-09 18:49:10 MST EAGLE 46.4.0.0.0-69.8.0 Command Completed.

21. This procedure is finished.







Sheet 1 of 3





Sheet 2 of 3







Sheet 3 of 3

Updating the Signaling Link and Data Link GPLs

This procedure is used to update the following **GPL**s: SS7IPGW, IPGWI, SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC, and IPSG. These names are used as the value of the gpl parameter of the chg-gpl, act-gpl, rept-stat-gpl, and rtrv-gpl commands.

Signaling links are assigned to cards running the following **GPL**s: SS7IPGW, IPGWI, SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC, and IPSG. The signaling link **GPL**s are assigned to the card types shown in Table 3-1.

GPL	Card Type
atmansi, atmhc	limatm (cards running the atmhc GPL must be E5-ATM cards)
atmitu, atmhc	lime1atm (cards running the atmhc GPL must be E5-ATM cards)
ss7ipgw, ipgwi, iplhc, ipghc, ipsg	dcm (cards running the iplhc, ipghc, or ipsg GPLs must be E5- ENET cards)
ss7hc	lime1, limt1 (these cards can be HC MIMs or E5-E1T1 cards)

Table 3-1 SS7 LIM Card Types

The data link **GPL**s are assigned to the card types shown in #unique_45/ unique_45_Connect_42_V2909559.

The card types shown in Table 3-1 and #unique_45/ unique_45_Connect_42_V2909559 are the values used for the type parameter of the ent-card command.

The cards running the SS7HC GPL are E5-E1T1-B cards. E5-E1T1-B cards are single-slot cards that can support up to 32 signaling links. These cards are either LIM-E1 or LIM-T1 cards. The rtrv-card output shows these cards running either the SS7ANSI or CCS7ITU applications, but the rept-stat-card and rept-stat-gpl output shows that these cards are actually running the SS7HC GPL.

The cards running the SS7EPM **GPL** are **E5-E1T1** cards which are single-slot cards that can support up to 32 signaling links. The **E5-E1T1** cards are either **LIM-E1** or **LIM-T1** cards. The rtrv-card output shows these cards running either the SS7ANSI or CCS7ITU applications, but the rept-stat-card and rept-stat-gpl output shows that these cards are actually running the SS7EPM **GPL**.

The cards running the IPLHC and IPGHC **GPL**s are **E5-ENET**, E5-ENET-B and SLIC cards supporting **IP** signaling links. The rtrv-card output shows this card running either the IPLIM or IPLIMI applications, but the rept-stat-card and rept-stat-gpl output shows that these cards are actually running the IPLHC **GPL**. The IPGHC **GPL** allows the **E5-ENET** card to support **SS7IPGW** (**ANSI IP** Gateway) or **IPGWI** (**ITU IP** Gateway) signaling links. The rtrv-card output shows this card running either the SS7IPGW or IPGWI applications, but the rept-stat-card and rept-stat-gpl output shows that these cards are actually running the IPGHC **GPL**.

The cards running the ATMHC GPL are cards that can contain the ATM high-speed signaling links on E5-ATM cards. The rtrv-card output shows these cards running



either the ATMANSI or ATMITU applications, but the rept-stat-card and reptstat-gpl output shows that these cards are actually running the ATMHC GPL.

If the **GPL** is being updated to a new version, a removable media containing the **GPL** being updated is required.

If any card is not running the version of the **GPL** shown in the RELEASE column of the rtrv-gpl output, the indicator ALM is displayed next to the **GPL** version in the RUNNING column of the rept-stat-gpl output, and next to the **GPL** version in the APPROVED column in the rtrv-gpl output.

Canceling the REPT-STAT-SLK and RTRV-SLK Commands

Because the rept-stat-slk and rtrv-slk commands used in this procedure can output information for a long period of time, the rept-stat-slk and rtrv-slk commands can be canceled and the output to the terminal stopped. There are three ways that the rept-stat-slk and rtrv-slk commands can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rept-statslk or rtrv-slk commands command were entered.
- Enter the canc-cmd without the trm parameter at the terminal where the reptstat-slk or rtrv-slk commands were entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the reptstat-slk or rtrv-slk commands were entered, from another terminal other that the terminal where the rept-stat-slk or rtrv-slk commands were entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user or rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Verify the control cards that are installed in the EAGLE.

Refer to Maintenance and Administration Subsystem for information about the control cards.

2. Check the E5-MASPs for removable media.

If removable media is installed in both E5-MASPs, continue the procedure with 4.

If removable media is not installed in both E5-MASPs, continue the procedure with 3.

3. Verify the active MASP by entering the rept-stat-db command.

This is an example of the possible output.

```
rlghncxa03w 09-03-16 15:25:40 GMT EAGLE 46.3.0

DATABASE STATUS: >> OK <<

E5TDM 1114 (STDBY) E5TDM 1116 (ACTV)

C LEVEL TIME LAST BACKUP C LEVEL TIME LAST

BACKUP

FD BKUP Y 36 09-02-19 09:38:25 GMT Y 36 09-02-19

09:38:25 GMT
```



FD CRNT Y 39			Y	39
E5MCAP 1113			E5MCAI	2 1115
RD BKUP	-	-	Y	36 09-02-19
09:27:17 GMT				
USB BKP	-	-	Y	3 09-02-07
01:11:22 GMT				

If removable media is installed in the active MASP, continue the procedure with 4.

If removable media is not installed in the active MASP, insert the removable media in the removable media drive in the active MASP. For more information about inserting removable media in the removable media drive, refer to Removable USB Drive. After the removable media has been inserted in the removable media drive in the active MASP, continue the procedure with 4.

4. Display the **GPL**s on the fixed disk using the rtrv-gpl command with the gpl parameter value equal to the **GPL** being updated. These are examples of the possible output.

rtrv-gpl:gpl=ss7hc

rlghncxa03w 09-03-16 11:34:04 GMT EAGLE 46.3.0 GPL Auditing ON

GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE			
TRIAL								
SS7HC	1114	132-002-000	132-002-000	132-001-000				
132-003-0	00							
SS7HC	1116	132-002-000	132-002-000	132-001-000				
132-003-0	132-003-000							
SS7HC	1115							

If the version of the **GPL** shown in the REMOVE TRIAL column of the rtrv-gpl output is not the version that is to be loaded onto the cards, remove the removable media from the active MASP.

Insert the removable media that contains the GPL that is being updated into the removable media drive in the active MASP and repeat this step.

For more information about inserting removable media in the removable media drive, or removing removable media from the removable media drive, refer to Removable USB Drive.

If the version of the GPL shown in the REMOVE TRIAL column of the rtrv-gpl output is the version that is to be loaded onto the cards, continue the procedure with 5.

5. Change the GPLs, using the chg-gpl command and specifying the value for the trial GPL shown in the REMOVE TRIAL column in the output of the rtrv-gpl command used in 4.

For this example, enter these commands.

chg-gpl:gpl=ss7hc:ver=123-003-000



These messages should appear.

rlghncxa03w 09-03-16 11:43:04 GMT EAGLE 46.3.0 GPL Auditing ON SS7HC upload on 1114 completed SS7HC upload on 1116 completed System Release ID table upload 1114 completed System Release ID table upload 1116 completed

6. Activate the trial GPL, using the act-gpl command and specifying the value for the trial GPL shown in 5.

For this example, enter this command.

act-gpl:gpl=ss7hc:ver=123-003-000

These messages should appear.

rlghncxa03w 09-03-16 06:54:39 GMT EAGLE 46.3.0
SS7HC activate on 1114 completed
SS7HC activate on 1116 completed

7. Verify that the trial **GPL** has been made the approved **GPL** using the rtrv-gpl command with the gpl parameter value specified in 5 and 6.

For this example, enter these commands.

```
rtrv-gpl:gpl=ss7hc
```

This is an example of the possible output.

```
rlghncxa03w 09-03-16 11:34:04 GMT EAGLE 46.3.0
GPL Auditing ON
```

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

```
rlghncxa03w 09-03-16 11:34:04 GMT EAGLE 46.3.0

GPL Auditing ON

GPL CARD RELEASE APPROVED TRIAL REMOVE

TRIAL

SS7HC 1114 132-003-000 132-003-000 132-002-000

132-003-000
```

1116 132-003-000 132-003-000



SS7HC

132-002-000

```
132-003-000
SS7HC 1115 ----- -----
```

8. Verify which cards are running the **GPL** using the rept-stat-gpl command with the gpl parameter value specified in 7.

For this example, enter these commands.

rept-stat-gpl:gpl=ss7hc

This is an example of the possible output.

rlghncxa	03w 09-0)3-16	11:40:2	26 GMT	EAGLE	46.3.0	
GPL	CARD	RUNN	ING		APPROVE	lD	TRIAL
SS7HC	1201	132-0	002-000	ALM	132-003	8-000	132-002-000
SS7HC	1204	132-0	002-000	ALM	132-003	8-000	132-002-000
SS7HC	1211	132-0	002-000	ALM	132-003	8-000	132-002-000
SS7HC	1215	132-0	002-000	ALM	132-003	8-000	132-002-000
SS7HC	1307	132-0	002-000	ALM	132-003	8-000	132-002-000
SS7HC	2111	132-0	002-000	ALM	132-003	8-000	132-002-000
SS7HC	2112	132-0	002-000	ALM	132-003	8-000	132-002-000
SS7HC	2115	132-0	002-000	ALM	132-003	8-000	132-002-000
SS7HC	2116	132-0	002-000	ALM	132-003	8-000	132-002-000
Command	Complete	ed					

Continue the procedure by performing one of these steps.

- If one of these GPLs is being updated: SS7IPGW, IPGWI, SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC, or IPSG, continue the procedure with 9.
- 9. Display the signaling links associated with the cards shown in 8.

Enter the rtrv-slk command. This is an example of the possible output.

rlghncxa03w 09-07-16 21:16:37 GMT EAGLE 41.1.0

					L2T			PCR	PCR
LOC	LINK	LSN	SLC	TYPE	SET	BPS	ECM	N1	N2
1201	А	lsnmpl1	0	LIMDS0	2	56000	BASIC		
1201	В	lsnmpl2	0	LIMDS0	3	56000	PCR	76	3800
1201	Al	lsnmpl3	0	LIMDS0	2	56000	PCR	120	5034
1201	B1	lsnmpl4	0	LIMDS0	1	56000	BASIC		
1204	А	lsnmpl1	1	LIMDS0	2	56000	BASIC		
1204	В	lsnmpl2	1	LIMDS0	3	56000	PCR	76	3800
1204	A2	lsnmpl3	1	LIMDS0	2	56000	PCR	120	5034
1204	в2	lsnmp15	0	LIMDS0	3	56000	PCR	76	3800
1211	А	lsnmpl1	2	LIMDS0	2	56000	BASIC		
1211	В	lsnmpl3	2	LIMDS0	2	56000	PCR	120	5034
1211	A3	lsnmp15	1	LIMDS0	3	56000	PCR	76	3800
1211	В3	lsnmpl6	0	LIMDS0	1	56000	PCR	120	5034
1215	Al	lsnmpl7	0	LIMDS0	1	56000	BASIC		
1215	в2	lsnmpl1	3	LIMDS0	2	56000	BASIC		
1215	A3	lsnmpl6	1	LIMDS0	1	56000	PCR	120	5034
1215	В3	lsnmpl7	1	LIMDS0	1	56000	BASIC		



1307 1307 1307 1307	A B2 A3 B3	lsnmpl6 lsnmpl7 lsnmpl6 lsnmpl7	2 2 3 3	LIMDS0 LIMDS0 LIMDS0 LIMDS0	1 1 1 1	56000 56000 56000 56000	PCR BASIC PCR BASIC	120 120 	503 503 	34 34
LOC VPI	LINK LL	LSN	SLC	TYPE	LP SET	BPS	ATM TSEI	J	VC	CI
1302	A 0	atm1302a	5	LIMATM	3	154400	0 INTH	ERNAL	35	5
1305 0	A 2	atm1305a	5	LIMATM	5	154400	0 LINH	2	5	
					LP					
ATM			E17	MTA						
LOC CRC4	LINK SI SÌ	LSN N	SLC	TYPE	SET	BPS	TSEL	VC:	Ľ	VPI
2101 ON	A 1 20	atmitul)	0	LIME1ATM	5	2.048M	LINE	150)	2
2105 ON	A 2 1!	atmitul 5	1	LIME1ATM	5	2.048M	LINE	35		15
					L2T			PCR	PCF	ર
E1	E1									
LOC LOC	LINK PORT	LSN TS	SLC	TYPE	SET	BPS	ECM	N1	N2	
2111 2111	A 2	lsne145 10	0	LIME1	1	56000	BASIC			
2112	_ А 1	lsne145	1	LIMCH	1	56000	BASIC			
2111 2112 2111	A2 1	lsne145 20	2	LIMCH	1	56000	BASIC			
	-				т.2т			סריפ	סריק	2
т 1	т 1							ICR	I CI	
LOC	LINK	LSN	SLC	TYPE	SET	BPS	ECM	Nl	N2	
2115	A	lsnt145	0	LIMT1	1	56000	BASIC			
2115	Z A	s lsnt145	1	LIMCH	1	56000	BASIC			
∠⊥15 2116	⊥ A2	⊥⊥ lsnt145	2	LIMCH	1	56000	BASIC			

SLK table is (30 of 1200) 3% full.

10. Using the outputs of 8 and 9 as a guide, select a card to load the approved **GPL** onto.

Deactivate the SS7 signaling links on that card using the dact-slk command. For this example, enter these commands.

dact-slk:loc=1201:link=a
dact-slk:loc=1201:link=b
dact-slk:loc=1201:link=a1

```
dact-slk:loc=1201:link=b1
```

Caution:

These command examples place the **SS7** signaling links on card 1201 out of service. This will interrupt service on the **SS7** signaling links on card 1201 and allow the approved **GPL** to be loaded on to card 1201. Do not deactivate all the **SS7** signaling links in the **EAGLE** at the same time. Doing so will take all the **SS7** signaling links out of service and isolate the **EAGLE** from the network.

When each of these commands have successfully completed, this message should appear.

rlghncxa03w 09-03-16 11:45:18 GMT EAGLE 46.3.0 Deactivate SLK message sent to card

Continue the procedure with 13.

11. Display the data links, and their status, associated with the cards shown in 8.

Enter the rept-stat-dlk command. This is an example of the possible output.

rlghncxa03w 09-03-16 17:00:36 GMT EAGLE 46.3.0 DLK PST SST AST 2105 IS-NR Avail _ _ _ 2113 IS-NR Avail ___ 2301 IS-NR Avail _ _ _ Command Completed.

12. Deactivate the **TCP/IP** data link on the card (shown in 11) that you wish to load the trial **GPL** onto, using the canc-dlk command.

For this example, enter this command.

canc-dlk:loc=2105

Caution:

This command example places the **TCP/IP** data link on card 2105 out of service. This will interrupt service on the **TCP/IP** data link on card 2105 and allow the trial **GPL** to be loaded on to card 2105.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 09-03-16 11:45:18 GMT EAGLE 46.3.0
Deactivate Link message sent to card.
Command Completed.
```



13. Place the card specified in either 10 or 12 out of service using the rmv-card command.

If the card contains the last signaling link in a linkset, the force=yes parameter must be specified. For this example, enter this command.

rmv-card:loc=1201:force=yes

rmv-card:loc=2105

When this command has successfully completed, this message should appear.

rlghncxa03w 09-03-16 11:11:28 GMT EAGLE 46.3.0
Card has been inhibited.

14. Put the cards that were inhibited in 13 back into service using the rst-card command.

The ${\tt rst-card}$ command also loads the approved version of the ${\tt GPL}$ onto the card.

For this example, enter this command.

rst-card:loc=1201

rst-card:loc=2105

When this command has successfully completed, this message should appear.

```
rlghncxa03w 09-03-16 11:11:28 GMT EAGLE 46.3.0 Card has been allowed.
```

15. Verify the **GPLs** on the cards using the rept-stat-gpl command with the gpl parameter value specified in 8.

If any card is not running the release version of the **GPL**, shown in the RELEASE column of the rtrv-gpl output in 7, the indicator ALM is displayed next to the **GPL** version in the RUNNING column of the rept-stat-gpl output. For this example, enter these commands.

rept-stat-gpl:gpl=ss7hc

This is an example of the possible output.

rlghncxa	a03w 09-	03-16 11:40:2	26 GMT	EAGLE 46.3.0	
GPL	CARD	RUNNING		APPROVED	TRIAL
SS7HC	1201	132-003-000		132-003-000	132-002-000
SS7HC	1204	132-002-000	ALM	132-003-000	132-002-000
SS7HC	1211	132-002-000	ALM	132-003-000	132-002-000
SS7HC	1215	132-002-000	ALM	132-003-000	132-002-000
SS7HC	1307	132-002-000	ALM	132-003-000	132-002-000
SS7HC	2111	132-002-000	ALM	132-003-000	132-002-000
SS7HC	2112	132-002-000	ALM	132-003-000	132-002-000
SS7HC	2115	132-002-000	ALM	132-003-000	132-002-000
SS7HC	2116	132-002-000	ALM	132-003-000	132-002-000
Command	Complet	ed			



Continue the procedure by performing one of these steps.

- If one of these GPLs is being updated: SS7IPGW, IPGWI, SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC, or IPSG, continue the procedure with 16.
- **16.** Place the signaling links that were deactivated in 10 back into service using the act-slk command.

For this example, enter these commands.

act-slk:loc=1201:link=a
act-slk:loc=1201:link=b
act-slk:loc=1201:link=a1
act-slk:loc=1201:link=b1

When each of these commands have successfully completed, this message should appear.

rlghncxa03w 09-03-16 11:55:49 GMT EAGLE 46.3.0 Activate SLK message sent to card

 Verify that the signaling links activated in 16 are back in service using the reptstat-slk command with the card location and signaling link.

For this example, enter these commands.

rept-stat-slk:loc=1201:link=a

This is an example of the possible output.

rlghncxa03w 09-03-16 13:06:25 GMT EAGLE 46.3.0 SLK LSN CLLI PST SST AST 1201,A lsnmpl1 ----- IS-NR Avail ----ALARM STATUS = No Alarms. UNAVAIL REASON = --

rept-stat-slk:loc=1201:link=b

This is an example of the possible output.

rlghncxa03w 09-03-16 13:06:25 GMT EAGLE 46.3.0 SLK LSN CLLI PST SST AST 1201,B lsnmpl2 ----- IS-NR Avail ----ALARM STATUS = No Alarms. UNAVAIL REASON = --

rept-stat-slk:loc=1201:link=a1

This is an example of the possible output.

rlghncxa03w 09-03-16 13:06:25 GMT EAGLE 46.3.0 SLK LSN CLLI PST SST AST 1201,A1 lsnmpl3 ----- IS-NR Avail ----



```
ALARM STATUS = No Alarms.
UNAVAIL REASON = --
```

rept-stat-slk:loc=1201:link=b1

This is an example of the possible output.

```
rlghncxa03w 09-03-16 13:06:25 GMT EAGLE 46.3.0

SLK LSN CLLI PST SST AST

1201,B1 lsnmpl4 ----- IS-NR Avail ----

ALARM STATUS = No Alarms.

UNAVAIL REASON = --

Command Completed.
```

18. Place the **TCP/IP** data link that was deactivated in 12 back into service using the act-dlk command.

For this example, enter this command.

act-dlk:loc=2105

When this command has successfully completed, this message should appear.

rlghncxa03w 09-03-16 11:55:49 GMT EAGLE 46.3.0 Activate Link message sent to card.

19. Verify that the **TCP/IP** date links activated in 18 are back in service with the rept-stat-dlk command.

This is an example of the possible output.

```
rlghncxa03w 09-03-16 12:57:50 GMT EAGLE 46.3.0

DLK PST SST AST

2105 IS-NR Avail ---

2113 IS-NR Avail ---

2301 IS-NR Avail ---

Command Completed.
```

20. Continue the procedure by performing these actions.

When the E5-based control cards are installed in the EAGLE, continue the procedure by performing one of these actions:

- If you wish to load the new GPL onto the other cards shown in 8, repeat this procedure from either 10 or 12 for each card shown in 8.
- If the new GPL will not be loaded onto other cards but other GPLs will be updated, repeat this procedure from 1.
- If the new GPL will not be loaded onto other cards and no other GPLs are being updated, then this procedure is finished.





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Figure 3-2 Updating the Signaling Link and Data Link GPLs





Sheet 1 of 5









Sheet 2 of 5





be updated in this procedure. The names in these tabls are used as the value of the *GPL* parameter of the *chg-gpl*, *act-gpl*, *rept-stat-gpl*, and *rtrv-gpl* commands.





Note: The SS7 LIM Card Types and Data Link Card Types tables contain the names of the GPLs that can be updated in this procedure. The names in these tabls are used as the value of the *GPL* parameter of the *chg-gpl, act-gpl, rept-stat-gpl,* and *rtrv-gpl* commands.

This table is in the "Updating the Signaling Link and Data Link GPLs" procedure in the Database Administration Manual – System Management. Sheet 3 of 5







Sheet 4 of 5







Sheet 5 of 5

Updating the Service GPLs

This procedure is used to update these **GPL**s: GLS, SCCPHC, and IPSHC. These names are used as the value of the gpl parameter of the chg-gpl, act-gpl, rept-stat-gpl, and rtrv-gpl commands.

These **GPL**s are assigned to the card types shown in Table 3-2.

Table 3-2 Service GPL Card Types

GPL	Card Type
sccphc	dsm (these cards must be E5-SM4G/E5-SM8G cards)
iphsc	ipsm (these cards must be E5-ENET-B or SLIC cards)
glshc	tsm (these cards must be E5-TSM cards)

The card types shown in Table 3-2 are the values used for the $\tt type$ parameter of the <code>ent-card command</code>.

If the **GPL** is being updated to a new version, a removable cartridge containing the **GPL** being updated is required.

If any card is not running the version of the **GPL** shown in the RELEASE column of the rtrv-gpl output, the indicator ALM is displayed next to the **GPL** version in the RUNNING column of the rept-stat-gpl output, and next to the **GPL** version in the APPROVED column in the rtrv-gpl output.

1. Verify the control cards that are installed in the EAGLE.

Refer to Maintenance and Administration Subsystem for information about the control cards.

2. Check the E5-MASPs for removable media.

If removable media is installed in both E5-MASPs, continue the procedure with 4.

If removable media is not installed in both E5-MASPs, continue the procedure with 3.

3. Verify the active MASP by entering the rept-stat-db command.

This is an example of the possible output.

```
rlghncxa03w 09-03-01 15:25:40 GMT EAGLE5 40.1.0
DATABASE STATUS: >> OK <<
     E5TDM 1114 ( STDBY)
                              E5TDM 1116 ( ACTV )
     C LEVEL TIME LAST BACKUP C LEVEL
                                      TIME LAST
BACKUP
     _____
FD BKUP Y
          36 09-02-19 09:38:25 GMT Y 36 09-02-19
09:38:25 GMT
FD CRNT Y 39
                              Y 39
     E5MCAP 1113
                               E5MCAP 1115
```



	-				
RD BKUP	-	-	Y	36	09-02-19
09:27:17 GMT					
USB BKP	-		Y	3	09-02-07
01:11:22 GMT					

If removable media is installed in the active MASP, continue the procedure with 4.

If removable media is not installed in the active MASP, insert the removable media in the removable media drive in the active MASP. For more information about inserting removable media in the removable media drive, refer to Removable USB Drive. After the removable media has been inserted in the removable media drive in the active MASP, continue the procedure with 4.

 Display the GPLs on the fixed disk and on the removable cartridge using the rtrv-gpl command with the gpl parameter value equal to the GPL being updated. These are examples of the possible output.

```
rlghncxa03w 09-03-01 11:34:04 GMT EAGLE5 40.1.0
GPL Auditing ON
        CARD RELEASE
GPL
                       APPROVED
                                         TRIAL
                                                     REMOVE
TRIAL
VSCCP 1114 132-002-000 132-002-000
                                         132-001-000
132-003-000
VSCCP 1116 132-002-000 132-002-000
                                         132-001-000
132-003-000
VSCCP
       1115 ----- -----
                                         _____
_ _ _ _ _ _ _ _ _ _ _ _ _
```

If the version of the **GPL** shown in the REMOVE TRIAL column of the rtrv-gpl output is not the version that is to be loaded onto the cards, remove the removable media from the active MASP.

Insert the removable media that contains the GPL that is being updated into the removable media drive in the active MASP and repeat this step.

For more information about inserting removable media in the removable media drive, or removing removable media from the removable media drive, refer to Removable USB Drive.

If the version of the GPL shown in the REMOVE TRIAL column of the rtrv-gpl output is the version that is to be loaded onto the cards, continue the procedure with 5.

5. Change the GPLs, using the chg-gpl command and specifying the value for the trial GPL shown in the REMOVE TRIAL column in the output of the rtrv-gpl command.

For this example, enter this command.

rtrv-gpl:gpl=vsccp

chg-gpl:gpl=vsccp:ver=132-003-000



These messages should appear.

rlghncxa03w 09-03-01 11:43:04 GMT EAGLE5 40.1.0 GPL Auditing ON VSCCP upload on 1114 completed VSCCP upload on 1116 completed System Release ID table upload 1114 completed System Release ID table upload 1116 completed

6. Activate the trial GPL, using the act-gpl command and specifying the value for the trial GPL shown in 5.

For this example, enter this command.

act-gpl:gpl=vsccp:ver=132-003-000

These messages should appear.

rlghncxa03w 09-03-01 06:54:39 GMT EAGLE5 40.1.0
VSCCP activate on 1114 completed
VSCCP activate on 1116 completed

7. Verify that the trial **GPL** has been made the approved **GPL** using the rtrv-gpl command with the gpl parameter value specified in 5 and 6.

For this example, enter this command.

rtrv-gpl:gpl=vsccp

This is an example of the possible output.

rlghncxa03w 09-03-01 11:34:04 GMT EAGLE5 40.1.0 GPL Auditing ON

GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIAL					
VSCCP	1114	132-003-000	132-003-000	132-002-000	
132-003-0	00				
VSCCP	1116	132-003-000	132-003-000	132-002-000	

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

rlghncxa03w 09-03-01 11:34:04 GMT EAGLE5 40.1.0 GPL Auditing ON

GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIAL					
VSCCP	1114	132-003-000	132-003-000	132-002-000	
132-003-00	00				
VSCCP	1116	132-003-000	132-003-000	132-002-000	



```
132-003-000
VSCCP 1115 ----- -----
```

8. Verify which cards are running the **GPL** using the rept-stat-gpl command with the gpl parameter value specified in 7.

For this example, enter this command.

rept-stat-gpl:gpl=vsccp

This is an example of the possible output.

```
rlghncxa03w09-03-0111:40:26GMTEAGLE540.1.0GPLCARDRUNNINGAPPROVEDTRIALVSCCP1101132-002-000ALM132-003-000132-002-000VSCCP1102132-002-000ALM132-003-000132-002-000VSCCP1103132-002-000ALM132-003-000132-002-000VSCCP1103132-002-000ALM132-003-000132-002-000CommandCompletedCompletedCompletedCompleted
```

If the **GLSHC** GPL is being loaded onto the cards, continue the procedure with 16.

If the GPL that is being loaded onto the card is not GLSHC, continue the procedure with 9.

9. 10 through 15 are performed based on the **GPL** being updated (shown in the rept-stat-gpl output in 8).

The following list shows the steps that are performed for the **GPL** being updated.

- SCCPHC Perform 10, then continue the procedure with 16.
- MCP Perform 11, then continue the procedure with 16.
- **IPSHC** Continue the procedure with **12**.
- **10.** Display the status of the service modules by entering the rept-stat-sccp command.

This is an example of the possible output.

rlghncxa03w 09-03-01 09:57:31 GMT EAGLE5 40.1.0

CARD CPU U	VERSION SAGE	PST	SST	AST	MSU USAGE
1101	132-002-001	IS-NR	Active		
47%	81%				
1102	132-002-001	IS-NR	Active		
34%	50%				
1103	132-002-001	IS-NR	Active		
21%	29%				
SCCP :	Service Avera	ge MSU Capacity :	= 36%	Average CI	PU Capacity



= 56% Command Completed.

Continue the procedure with 16.

Note:

The rept-stat-sccp command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rept-stat-sccp command, see the rept-stat-sccp command description in *Commands User's Guide*.

11. Display the status of the **MCPM**s in the database by entering the rept-statmeas command.

This is an example of the possible output.

rlghncxa03w 09-03-01 16:43:42 GMT EAGLE5 40.1.0

	PST		SST	AST			
MEAS SS IS-N		S-NR	Active				
AI	ARM STATUS =	No Alarms	5				
CARD	VEDCION	TYDE	DCT	COT	አርሞ		
CARD	VERSION	LIPE	P51	166	ASI		
2107 F	0132-002-000	EDSM	IS-NR	Active			
IP	Link A		IS-NR	Active			
Available							
2108	132-200-000	EDSM	IS-NR	Active			
IP Link A			IS-NR	Active			
Available							
2111	132-002-000	EDSM	IS-NR	Active			
IP	Link A		IS-NR	Active			
Available							

CARD 2107 ALARM STATUS = No Alarms CARD 2108 ALARM STATUS = No Alarms CARD 2111 ALARM STATUS = No Alarms

Continue the procedure with 16.

12. Display the status of the **IPSMs** (if the **IPSHCGPL** is being updated) using the rept-stat-card command and specifying the location of the card shown in the rept-stat-gpl output in 8.

For this example, enter this command.

rept-stat-card:loc=2301

This is an example of the possible output.

rlghncxa03w 09-03-01 09:12:36 GMT EAGLE5 40.1.0 CARD VERSION TYPE GPL PST SST AST



2301 132-001-000 IPSM IPS IS-NR Active ____ ALARM STATUS = No Alarms. BPDCM GPL = 132 - 002 - 000IMT BUS A = Conn IMT BUS B = Conn Command Completed.

13. Display the terminal configuration in the database with the rtrv-trm command.

The IP terminals are shown by the terminal numbers 17 through 40. The rtrvtrm output shows the location of the IPSM associated with the IP terminals. This is an example of the possible output.

TTAI	10110001		52.00	0011 01101		
TRM	TYPE	COMM	FC	TMOUT	MXINV	DURAL
1	VT320	9600-7-E-1	SW	30	5	99:59:59
2	KSR	9600-7-E-1	HW	30	5	INDEF
3	PRINTER	4800-7-E-1	HW	30	0	00:00:00
4	VT320	2400-7-E-1	BOTH	30	5	00:30:00
5	VT320	9600-7-0-1	NONE	30	5	00:00:30
б	VT320	9600-7-0-1	NONE	30	5	00:00:30
7	PRINTER	9600-7-N-2	HW	30	5	00:30:00
8	KSR	19200-7-E-2	BOTH	30	5	00:30:00
9	VT320	9600-7-0-1	NONE	30	5	00:00:30
10	VT320	9600-7-E-1	HW	30	5	00:30:00
11	VT320	4800-7-E-1	HW	30	5	00:30:00
12	PRINTER	9600-7-E-1	HW	30	4	00:30:00
13	VT320	9600-7-0-1	NONE	30	5	00:30:00
14	VT320	9600-7-E-2	SW	30	8	00:30:00
15	VT320	9600-7-N-2	HW	30	5	00:30:00
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00
TRM	TYPE	LOC		TMOUT	MXINV	DURAL
17	TELNET	3101		60	5	00:30:00
18	TELNET	3101		60	5	00:30:00
19	TELNET	3101		60	5	00:30:00
20	TELNET	3101		60	5	00:30:00
21	TELNET	3101		60	5	00:30:00
22	TELNET	3101		60	5	00:30:00
23	TELNET	3101		60	5	00:30:00
24	TELNET	3101		60	5	00:30:00
25	TELNET	3105		60	5	00:30:00
26	TELNET	3105		60	5	00:30:00
27	TELNET	3105		60	5	00:30:00
28	TELNET	3105		60	5	00:30:00
39	TELNET	3105		60	5	00:30:00
30	TELNET	3105		60	5	00:30:00
31	TELNET	3105		60	5	00:30:00
32	TELNET	3105		60	5	00:30:00
33	TELNET	3111		60	5	00:30:00
34	TELNET	3111		60	5	00:30:00
35	TELNET	3111		60	5	00:30:00

rlghncxa03w 10-07-01 16:02:08 GMT EAGLE5 42.0.0
36	TELNET	3111	60	5	00:30:00
37	TELNET	3111	60	5	00:30:00
38	TELNET	3111	60	5	00:30:00
39	TELNET	3111	60	5	00:30:00
40	TELNET	3111	60	5	00:30:00

Note:

The rtrv-trm command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrvtrm command, see the rtrv-trm command description in *Commands User's Guide*.

14. Display the status of the terminals with the rept-stat-trm command.

This is an example of the possible output.

rlghno	cxa03w	09-03-01	15:08:45	GMT	EAGLE5	40.1.0
TRM	PST	:	SST		AST	
1	IS-NR	i	Active			
2	IS-NR	i	Active			
3	IS-NR	i	Active			
4	IS-NR	i	Active			
5	IS-NR	i	Active			
б	IS-NR	i	Active			
7	IS-NR	i	Active			
8	IS-NR	i	Active			
9	IS-NR	i	Active			
10	IS-NR	i	Active			
11	IS-NR	i	Active			
12	IS-NR	i	Active			
13	IS-NR	i	Active			
14	IS-NR	i	Active			
15	IS-NR	i	Active			
16	IS-NR	i	Active			
17	IS-NR	i	Active			
18	IS-NR	i	Active			
19	IS-NR	i	Active			
20	IS-NR	i	Active			
21	IS-NR	i	Active			
22	IS-NR	i	Active			
23	IS-NR	i	Active			
24	IS-NR	i	Active			
25	IS-NR	i	Active			
26	IS-NR	i	Active			
27	IS-NR	i	Active			
28	IS-NR	i	Active			
29	IS-NR	i	Active			
30	IS-NR	i	Active			
31	IS-NR	i	Active			
32	IS-NR	1	Active			



33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

Command Completed.

15. Place the terminals associated with the **IPSM** that will be updated with the new **IPSHCGPL** out of service using the rmv-trm command.

If the last in service SEAS terminal is assigned to the card containing the terminals that are being inhibited in this step, the force=yes parameter must be specified for that terminal.

For this example, enter these commands.

```
rmv-trm:trm=17
rmv-trm:trm=18
rmv-trm:trm=19
rmv-trm:trm=20
rmv-trm:trm=21
rmv-trm:trm=22
rmv-trm:trm=23
rmv-trm:trm=24
```

Caution:

Placing these terminals out of service will disable any sessions running on these terminals.

If the status of any of the terminals shown in the PST field in 14 is **OOS-MT-DSBLD** (out-of-service maintenance disabled), that terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

This message should appear when each of these commands have successfully completed.

```
rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0
Inhibit message sent to terminal
```

rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0
Command Completed.

 The card that the new version of the GPL will be loaded onto must be out of service.



Place the card, selected from the outputs of 8, 10, 11, or 12, out of service using the rmv-card command. If there is only one of these cards running these **GPLs** in service (GLSHC), the force=yes parameter must be specified with the rmv-card command.

For this example, enter this command.

rmv-card:loc=1101

Caution:

Do not place all the cards running the same **GPL** in the **EAGLE** out of service at the same time. Doing so will cause all traffic carried by these cards to be lost and disable the feature associated with these cards.

Caution:

If there is only one in service card running the **GPL** being updated in the **EAGLE**, placing the card out of service will cause the traffic carried by this card to be lost and disable the feature associated with this card.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 09-03-01 11:11:28 GMT EAGLE5 40.1.0
Card has been inhibited.
```

17. Put the card that was inhibited in 16 back into service using the rst-card command.

The rst-card command also loads the approved version of the **GPL** onto the card.

For this example, enter this command.

rst-card:loc=1101

When this command has successfully completed, this message should appear.

```
rlghncxa03w 09-03-01 11:11:28 GMT EAGLE5 40.1.0
Card has been allowed.
```

18. Verify the **GPL**s on the cards using the rept-stat-gpl command with the gpl parameter value equal to the gpl parameter value specified in 8.

If any card is not running the release version of the **GPL**, shown in the RELEASE column of the rtrv-gpl output in 7, the indicator ALM is displayed next to the **GPL** version in the RUNNING column of the rept-stat-gpl output. For this example, enter these commands.

```
rept-stat-gpl:gpl=vsccp
```



This is an example of the possible output.

rlghncxa03w09-03-0111:40:26GMTEAGLE540.1.0GPLCARDRUNNINGAPPROVEDTRIALVSCCP1101132-003-000132-003-000132-002-000VSCCP1102132-002-000ALM132-003-000132-002-000VSCCP1103132-002-000ALM132-003-000132-002-000CommandCompletedCompletedCompletedCompleted

Note:

If the **IPSHC** GPL is not being updated in this procedure, continue the procedure with 21.

19. Put the terminals that were placed out of service in 15 back into service using the rst-trm command.

For this example, enter these commands.

rst-trm:trm=17
rst-trm:trm=18
rst-trm:trm=19
rst-trm:trm=20
rst-trm:trm=21
rst-trm:trm=22
rst-trm:trm=23
rst-trm:trm=24

This message should appear when each of these commands have successfully completed.

rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0 Allow message sent to terminal

rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0
Command Completed.

20. Verify that the terminals are in service with the rept-stat-trm command.

This is an example of the possible output.

rlghno	cxa03w	09-03-01	15:08:45	GMT	EAGLE5	40.1.0
TRM	PST	, L	SST		AST	
1	IS-NR	1	Active			
2	IS-NR	1	Active			
3	IS-NR	1	Active			
4	IS-NR	1	Active			
5	IS-NR	I	Active			



6	IS-NR	Active	
7	IS-NR	Active	
8	IS-NR	Active	
9	IS-NR	Active	
10	IS-NR	Active	
11	IS-NR	Active	
12	IS-NR	Active	
13	IS-NR	Active	
14	IS-NR	Active	
15	IS-NR	Active	
16	IS-NR	Active	
17	IS-NR	Active	
18	IS-NR	Active	
19	IS-NR	Active	
20	IS-NR	Active	
21	IS-NR	Active	
22	IS-NR	Active	
23	IS-NR	Active	
24	IS-NR	Active	
25	IS-NR	Active	
26	IS-NR	Active	
27	IS-NR	Active	
28	IS-NR	Active	
29	IS-NR	Active	
30	IS-NR	Active	
31	IS-NR	Active	
32	IS-NR	Active	
33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

Command Completed.

21. Continue the procedure by performing these actions.

When the E5-based control cards are installed in the EAGLE, continue the procedure by performing one of these actions.

- If you wish to load the new **GPL** onto the other cards shown in 8, repeat this procedure from 9 for each card shown in 8.
- If the new GPL will not be loaded onto other cards but other GPLs will be updated, repeat this procedure from 1.
- If the new GPL will not be loaded onto other cards and no other GPLs are being updated, then this procedure is finished.



Figure 3-3 Updating the Service GPLs







Sheet 1 of 7







Sheet 2 of 7





Note: The Service GPL Card Types table in this procedure contains the names of the GPLs that can be updated in this procedure. The names in this table are used as the value of the *GPL* parameter of the *chg-gpl*, *act-gpl*, *rept-stat-gpl*, and *rtrv-gpl* commands.



This table is in the "Updating the Service GPLs" procedure in the Database Administration Manual – System Management.



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ORACLE

Sheet 7 of 7

Updating the Flash GPLs

This procedure is used to update **GPL**s: The GPLs are used as the value of the gpl parameter of the chg-gpl, act-gpl, rept-stat-gpl, and rtrv-gpl commands.

Intended Application GPL	Card configuration (rtrv-card)		Hardware Type Used	Required Flash GPL
	APPL	Туре		
SCCP64	VSCCP	DSM	SM8G-B	BLDC64
	VSCCP	DSM/SLIC	SLIC	BLSLC64
IPSG	IPSG	ENET/ENETB	E5-ENET-B	BLMCAP
	IPSG	ENET/ENETB/ SLIC	SLIC	BLSLC32
IPSG32	IPSG	SLIC	SLIC	BLSLC32
IPSHC69	IPS	IPSM	E5-ENET-B	BLDC32
	IPS	IPSM	SLIC	BLSL932
MCPHC69	MCP	МСРМ	E5-MCPM-B	BLDC32
	MCP	МСРМ	SLIC	BLSL932
OAMHC69	OAM	E5-MCAP	E5-MASP	BLDC32
SIP64	SIPHC	DSM	SM8G-B	BLDC64
	SIPHC	DSM/SLIC	SLIC	BLSLC64
DEIR64	DEIRHC	DSM	SM8G-B	BLDC64
	DEIRHC	DSM/SLIC	SLIC	BLSLC64
ENUM64	ENUMHC	DSM	SM8G-B	BLDC64
	ENUMHC	DSM/SLIC	SLIC	BLSLC64
SFAPP	SFAPP	SLIC	SLIC	BLSLC64
АТМНС	ATMITU	LIME1ATM	E5-ATM-B	BLMCAP
	ATMANSI	LIMATM	E5-ATM-B	BLMCAP
ERTHC	EROUTE	STC	E5-ENET-B	BLMCAP
	EROUTE	STC	SLIC	BLSLC32
SS7HC	CCS7ITU	LIME1	E5-E1T1-B	BLMCAP
			SLIC	BLSLC32
	SS7ANSI	LIMT1	E5-E1T1-B	BLMCAP
			SLIC	BLSLC32

Table 3-3 EAGLE Card Applications and GPLs

Updating the BLMCAP GPL for the E5-MASPs is not covered in this procedure. To update the OAMHC GPLs, perform Updating the BLMCAP and OAMHC GPLs .

If the **GPL** is being updated to a new version, removable media containing the **GPL** being updated is required.

Canceling the REPT-STAT-SLK and RTRV-SLK Commands



Because the rept-stat-slk and rtrv-slk commands used in this procedure can output information for a long period of time, the rept-stat-slk and rtrv-slk commands can be canceled and the output to the terminal stopped. There are three ways that the rept-stat-slk and rtrv-slk commands can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rept-statslk or rtrv-slk commands command were entered.
- Enter the canc-cmd without the trm parameter at the terminal where the reptstat-slk or rtrv-slk commands were entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the reptstat-slk or rtrv-slk commands were entered, from another terminal other that the terminal where the rept-stat-slk or rtrv-slk commands were entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user or rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Verify the control cards that are installed in the EAGLE.

Refer to Maintenance and Administration Subsystem for information about the control cards.

If E5-based control cards are installed in the EAGLE, continue the procedure with 2.

2. Check the E5-MASPs for removable media.

If removable media is installed in both E5-MASPs, continue the procedure with 5.

If removable media is not installed in both E5-MASPs, continue the procedure with 3.

3. Verify the active MASP by entering the rept-stat-db command.

This is an example of the possible output.

rlghncxa	a03w ()9-03-0)1 15:25:4	0 GMT	EAGLE5	40.1	.0		
DATABASI	E STAT	rus: >>	> OK <<						
	E5-MA	ASP 111	l4 (STDBY	<u>(</u>)			E5-MASE	2 1116 (ACTV)
	C I	LEVEL	TIME LA	ST BAC	KUP	С	LEVEL	TIME LAST	
BACKUP									
FD BKUP	Y	36	09-02-19	09:38:	25 GMT	Y	36	09-02-19	
09:38:25	5 GMT								
FD CRNT	Y	39				Y	39		
	MCAP	1113				MCAE	P 1115		
RD BKUP	-	-	-	-		Y	36	09-02-19	
09:27:17	7 GMT								
USB BKP	-	-	-	-		Y	3	09-02-07	
01:11:22	2 GMT								

If removable media is installed in the active MASP, continue the procedure with 5.



If removable media is not installed in the active MASP, insert the removable media in the removable media drive in the active MASP. For more information about inserting removable media in the removable media drive, refer to Removable USB Drive. After the removable media has been inserted in the removable media drive in the active MASP, continue the procedure with 5.

4. Determine the flash GPL for the card location by entering the rtrvcard:loc<xxxx> command:

```
rtrv-card:loc=1203
Command Accepted - Processing
   eagle1 18-02-20 11:27:40 EST EAGLE 46.6.0.0.0-73.13.0
   rtrv-card:loc=1203
   Command entered at terminal #13.
;
   eagle1 18-02-20 11:27:40 EST EAGLE 46.6.0.0.0-73.13.0
   CARD TYPE APPL DATA LSET NAME LINK SLC LSET
NAME LINK SLC
   1203 LIME1 CCS7ITU mgtsitu A 0
;
followed by the rtrv-bip:loc<xxxx> command:
rtrv-bip:loc=1203
Command Accepted - Processing
   eagle1 18-02-20 11:27:49 EST EAGLE 46.6.0.0.0-73.13.0
   rtrv-bip:loc=1203
   Command entered at terminal #13.
;
   eagle1 18-02-20 11:27:49 EST EAGLE 46.6.0.0.0-73.13.0
_____
_____
   Location: 1203 - MBD
   Part Number:
               7094646
   Revision:
               17
                                     Week/Year:
15/2017
   Serial Number: 10217152084
   Software Match ID: EG - 001
                                     Max Power Rating :
826mA
  _____
____
   END OF REPORT
;
```



View the table in the EAGLE Card Applications and GPLs table in order to determine the appropriate GPL for the location.

5. Display the flash GPLs on the fixed disk and on the removable media using the rtrv-gpl command with the gpl parameter value equal to the flash GPL being updated. For this example, enter this command.

```
rtrv-gpl:gpl=xxxx
```

This is an example of the possible output:

tekelecstp 18-01-18 21:23:11 EST EAGLE 46.5.1.5.0-73.10.0 GPL Auditing ON

GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIAL	1111	142 010 000	142 010 000	142 010 000	
 BTWCA5	1114 	143-010-000	143-010-000	143-010-000	
BLMCAP	1116	143-010-000	143-010-000	143-010-000	
	 111F				

If the version of the flash **GPL** shown in the REMOVE TRIAL column of the rtrv-gpl output is not the version that is to be loaded onto the cards, remove the removable media from the active MASP.

Insert the removable media that contains the flash GPL that is being updated into the removable media drive in the active MASP and repeat this step.

For more information about inserting removable media in the removable media drive, or removing removable media from the removable media drive, refer to Removable USB Drive.

If the version of the flash **GPL** shown in the REMOVE TRIAL column of the rtrv-gpl output is the version that is to be loaded onto the cards, continue the procedure with 6.

6. Change the flash **GPL**s, using the chg-gpl command and specifying the value for the flash **GPL** shown in the REMOVE TRIAL column in the output of the rtrv-gpl command.

For this example, enter this command.

chg-gpl:gpl=blmcap:ver=002-003-000

These messages should appear.

tekelecstp 18-01-18 21:23:11 EST EAGLE 46.5.1.5.0-73.10.0 GPL Auditing ON

BLMCAP upload on 1114 completed BLMCAP upload on 1116 completed System Release ID table upload 1114 completed System Release ID table upload 1116 completed



7. Activate the trial flash **GPL**, using the act-gpl command and specifying the name and version of the trial flash **GPL** specified in 6.

For this example, enter this command.

act-gpl:gpl=blmcap:ver=002-003-000

These messages should appear.

```
tekelecstp 18-01-18 21:23:11 EST EAGLE 46.5.1.5.0-73.10.0
BLMCAP activate on 1114 completed
BLMCAP activate on 1116 completed
```

8. Verify that the flash **GPL** on the or removable media is the approved flash **GPL** on the fixed disk using the rtrv-gpl command with the gpl parameter value specified in 7.

For this example, enter this command.

rtrv-gpl:gpl=blmcap

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

tekelecstp 18-01-18 21:23:11 EST EAGLE 46.5.1.5.0-73.10.0 GPL Auditing ON

GPL TRIAL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
BLMCAP	1114	143-010-000	143-010-000	143-010-000	
BLMCAP	1116	143-010-000	143-010-000	143-010-000	
BLMCAP	 1115				

9. Display the status of the card, shown in the rept-stat-gpl output, that the flash GPL will be loaded onto using the rept-stat-card command and specifying the location of the card.

For this example, enter this command.

rept-stat-card:loc=2105

10. rtrv-card

11. Display the signaling links associated with the card shown in **9**.

Enter the rtrv-slk command with the card location specified in 9. This is an example of the possible output.

rlghncxa03w 09-07-01 21:16:37 GMT EAGLE5 41.1.0

					L2T			PCR	PCR
LOC	LINK	LSN	SLC	TYPE	SET	BPS	ECM	N1	N2
1201	A	lsn1201a	0	LIMDS0	1	56000	BASIC		
1201	В	lsn1201b	0	LIMDS0	1	56000	BASIC		



1201 Al	lsn1201a	1	LIMDS0	1	56000	BASIC	
1201 B1	lsn1201b	1	LIMDS0	1	56000	BASIC	

12. Deactivate the SS7 signaling links on the card using the dact-slk command.

For this example, enter these commands.

```
dact-slk:loc=1201:link=a
dact-slk:loc=1201:link=b
dact-slk:loc=1201:link=a1
dact-slk:loc=1201:link=b1
```

Caution:

These command examples place the **SS7** signaling links on card 1201 out of service. This will interrupt service on the **SS7** signaling links on card 1201 and allow the approved flash **GPL** to be loaded on to card 1201.

Caution:

Do not deactivate all the **SS7** signaling links in the **EAGLE** at the same time. Doing so will take all the **SS7**signaling links out of service and isolate the **EAGLE** from the network.

When each of these commands have successfully completed, this message should appear.

tekelecstp 18-01-18 21:23:11 EST EAGLE 46.5.1.5.0-73.10.0 Deactivate SLK message sent to card

Continue the procedure with 22.

13. Display the TCP/IP data links, and their status, associated with the cards.

Enter the rept-stat-dlk command. This is an example of the possible output.

```
rlghncxa03w 06-10-01 17:00:36 GMT EAGLE5 36.0.0
DLK
      PST
                     SST
                               AST
1303
     IS-NR
                     Avail
                                _ _ _
2101
      IS-NR
                     Avail
                                _ _ _
2103 IS-NR
                    Avail
                                _ _ _
2105 IS-NR
                    Avail
                                _ _ _
2113
     IS-NR
                    Avail
                                _ _ _
2301
      IS-NR
                     Avail
                                ___
Command Completed.
```

14. Deactivate the **TCP/IP** data link on the card that you wish to load the flash **GPL** onto, shown in 13, using the canc-dlk command.



For this example, enter this command.

canc-dlk:loc=2105

Caution:

This command example places the **TCP/IP** data link on card 2105 out of service. This will interrupt service on the **TCP/IP** data link on card 2105 and allow the trial flash **GPL** to be loaded on to card 2105.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 11:45:18 GMT EAGLE5 36.0.0
Deactivate Link message sent to card.
Command Completed.
```

Continue the procedure with 22.

15. Display the status of the service modules by entering the rept-stat-sccp command.

This is an example of the possible output.

rlghncxa03w 06-10-01 09:57:31 GMT EAGLE5 36.0.0

CARD CPU US	VERSION SAGE	PST	SST	AST	MSU USAGE			
2311	132-002-001	IS-NR	Active					
47%	81%							
3101	132-002-001	IS-NR	Active					
34%	50%							
3103	132-002-001	IS-NR	Active					
21%	29%							
SCCP 5 = 54%	SCCP Service Average MSU Capacity = 34% Average CPU Capacity = 54%							
Comman	Command Completed.							

Continue the procedure with 22.

Note:

The rept-stat-sccp command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rept-stat-sccp command, see the rept-stat-sccp command description in *Commands User's Guide*.



16. Display the status of the **MCPM**s in the database with the rept-stat-meas command.

This is an example of the possible output.

rlghncxa03w 09-02-01 16:43:42 GMT EAGLE5 40.0.0

PS' MEAS SS IS		T -NR	SST Active	AST	
	ALARM STATUS =	No Alarms	3		
CARI	O VERSION	TYPE	PST	SST	AST
2107	7 P 132-002-000	EDSM	IS-NR	Active	
]	IP Link A		IS-NR	Active	
Availabl	le				
2108	3 132-002-000	EDSM	IS-NR	Active	
]	IP Link A		IS-NR	Active	
Availabl	le				
2111	132-002-000	EDSM	IS-NR	Active	
1	IP Link A		IS-NR	Active	
Availabl	le				
CARI) 2107 ALARM STAT	'US = No Al	arms		

CARD 2107 ALARM STATUS = NO Alarms CARD 2108 ALARM STATUS = NO Alarms CARD 2111 ALARM STATUS = NO Alarms

Continue the procedure with 22.

17. To load the BLMCAP GPL on the E5-MASP, it must be loaded on the standby MASP (E5-MASP) first.

To determine which MASP is active, enter the rept-stat-db command. This is an example of the possible output.

The output of the rept-stat-db command shows which MASP is active with the indicator (ACTV) following the E5-MASP card location. The indicator (STDBY) following the E5-MASP card location shows which MASP is standby.

For this example, the MASP associated with E5-MASP 1116 is active and the MASP associated with E5-MASP 1114 is standby.

18. Display the terminal configuration in the database with the rtrv-trm command.



If the application GPL running on the card is **IPS**, the Telnet terminals associated with the card shown in 9 must be taken out of service. The Telnet terminals are shown in the output with the entry TELNET in the TYPE field.

This is an example of the possible output. In this example, the SEAS terminals are terminals 27 and 36. The Telnet terminals that must be taken out of service are terminals 17 to 24.

rlghr	ncxa03w i	10-07-01 16	:02:08	GMT	EAGL	E5 42.	0.0		
TRM	TYPE	COMM	FC	TI	I TUON	MXINV	DURAL		
1	VT320	9600-7-E-	1 SW	30)	5	99:59:5	9	
2	KSR	9600-7-E-	1 HW	30)	5	INDEF		
3	PRINTER	4800-7-E-	1 HW	30)	0	00:00:0	0	
4	VT320	2400-7-E-	1 BOT	'H 30)	5	00:30:0	0	
5	VT320	9600-7-0-	1 NON	Е 3()	5	00:00:3	0	
б	VT320	9600-7-0-2	1 NON	Е 3()	5	00:00:3	0	
7	PRINTER	9600-7-N-	2 HW	30)	5	00:30:0	0	
8	KSR	19200-7-E-	2 BOT	'H 30)	5	00:30:0	0	
9	VT320	9600-7-0-	1 NON	Е 3()	5	00:00:3	0	
10	VT320	9600-7-E-	1 HW	30)	5	00:30:0	0	
11	VT320	4800-7-E-	1 HW	30)	5	00:30:0	0	
12	PRINTER	9600-7-E-	1 HW	30) .	4	00:30:0	0	
13	VT320	9600-7-0-	1 NON	Е 3()	5	00:30:0	0	
14	VT320	9600-7-E-	2 SW	30)	8	00:30:0	0	
15	VT320	9600-7-N-	2 HW	30)	5	00:30:0	0	
16	VT320	9600-7-E-	2 BOT	'H 30)	3	00:30:0	0	
TRM	TYPE	LOC		TI	I TUON	MXINV	DURAL		SECURE
17	TELNET	1201		60)	5	00:30:0	0	yes
18	TELNET	1201		60)	5	00:30:0	0	yes
19	TELNET	1201		60)	5	00:30:0	0	yes
20	TELNET	1201		60)	5	00:30:0	0	yes
21	TELNET	1201		60)	5	00:30:0	0	yes
22	TELNET	1201		60)	5	00:30:0	0	yes
23	TELNET	1201		60)	5	00:30:0	0	yes
24	TELNET	1201		60)	5	00:30:0	0	yes
25	TELNET	1203		60)	5	00:30:0	0	yes
26	TELNET	1203		60)	5	00:30:0	0	yes
27	SEAS	1203		60)	5	00:30:0	0	yes
28	TELNET	1203		60)	5	00:30:0	0	yes
29	TELNET	1203		60)	5	00:30:0	0	yes
30	TELNET	1203		60)	5	00:30:0	0	yes
31	TELNET	1203		60)	5	00:30:0	0	yes
32	TELNET	1203		60)	5	00:30:0	0	yes
33	TELNET	1205		60)	5	00:30:0	0	yes
34	TELNET	1205		60)	5	00:30:0	0	yes
35	TELNET	1205		60)	5	00:30:0	0	yes
36	SEAS	1205		60)	5	00:30:0	0	yes
37	TELNET	1205		60)	5	00:30:0	0	yes
38	TELNET	1205		60)	5	00:30:0	0	yes
39	TELNET	1205		60)	5	00:30:0	0	yes
40	TELNET	1205		60)	5	00:30:0	0	yes

Note:

The rtrv-trm command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrvtrm command, see the rtrv-trm command description in *Commands User's Guide*.

19. Display the status of the terminals with the rept-stat-trm command.

This is an example of the possible output.

rlghn	lcxa03w	06-10-01	15:08:45	GMT	EAGLE5	36.0.0
TRM	PST		SST		AST	
1	IS-NR		Active			
2	IS-NR		Active			
3	IS-NR		Active			
4	IS-NR		Active			
5	IS-NR		Active			
6	IS-NR		Active			
7	IS-NR		Active			
8	IS-NR		Active			
9	IS-NR		Active			
10	IS-NR		Active			
11	IS-NR		Active			
12	IS-NR		Active			
13	IS-NR		Active			
14	IS-NR		Active			
15	IS-NR		Active			
16	IS-NR		Active			
17	IS-NR		Active			
18	IS-NR		Active			
19	IS-NR		Active			
20	IS-NR		Active			
21	IS-NR		Active			
22	IS-NR		Active			
23	IS-NR		Active			
24	IS-NR		Active			
25	IS-NR		Active			
26	IS-NR		Active			
27	IS-NR		Active			
28	IS-NR		Active			
29	IS-NR		Active			
30	IS-NR		Active			
31	IS-NR		Active			
32	IS-NR		Active			
33	IS-NR		Active			
34	IS-NR		Active			
35	IS-NR		Active			
36	IS-NR		Active			
37	IS-NR		Active			
38	IS-NR		Active			
39	IS-NR		Active			
40	IS-NR		Active			



```
Command Completed.
```

20. Place the required terminals out of service using the rmv-trm command.

To place the SEAS terminals out of service in this example, enter these commands.

rmv-trm:trm=27

```
rmv-trm:trm=36:force=yes
```

Caution:

Placing the SEAS terminals out of service will disable the SEAS feature on the EAGLE.

To place the Telnet terminals out of service in this example, enter these commands.

```
rmv-trm:trm=17
rmv-trm:trm=18
rmv-trm:trm=19
rmv-trm:trm=20
rmv-trm:trm=21
rmv-trm:trm=22
rmv-trm:trm=23
rmv-trm:trm=24
```

Caution:

Placing the Telnet terminals out of service will disable any Telnet sessions running on these terminals.

If the status of any of the terminals shown in the PST field in 19 is **OOS-MT-DSBLD** (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

This message should appear when each of these commands have successfully completed.

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Inhibit message sent to terminal
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.
```



- 21 is performed only if the SEAS terminals were placed out of service in this step. If the SEAS terminals were not placed out of service in this step, continue the procedure with 22.
- If the SEAS terminals were placed out of service in this step, continue the procedure with 21.
- 21. Change the terminal type of the SEAS terminals to **NONE** with the chg-trm command, the type=none parameter, and with the values of the SEAS terminals used in 20.

For this example, enter these commands.

chg-trm:trm=27:type=none

chg-trm:trm=36:type=none

This message should appear when these commands have successfully completed.

rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0 CHG-TRM: MASP B - COMPLTD

22. Place the card shown in 9 out of service using the rmv-card command.

Caution:

Multiple cards running the same flash **GPL** can be updated at the same time with the init-flash command (25). This requires that the cards in the locations specified with the init-flash command in 25 are out of service. All the cards running one of these application GPLs (OAMHC or BLMCAP) can be placed out of service. However, it is recommended that only some of the cards running a specific application GPL are placed out of service. Placing all the cards running a specific application GPL out of service will cause the traffic carried by these cards to be lost and disable the features supported by these cards.

Caution:

If the EOAM GPL is being updated, the card being placed out of service must be the **E5-MASP** associated with the standby **MASP**. Both cards running the EOAM GPL cannot be placed out of service at the same time.

Caution:

If there is only one card running these application GPLs (OAMHC or BLMCAP), shown in the GPL column in the rept-stat-card output in 9, in the **EAGLE**, placing the card out of service will cause the traffic carried by this card to be lost and disable the feature that this card supports.



For this example, enter this command.

```
rmv-card:loc=2105
```

Note:

If more than one card running the same flash **GPL** is to be updated in 25, repeat this step for those cards.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
Card has been inhibited.
```

If the card is running the OAMHC or BLMCAP application GPLs, and the card contains the last signaling link in a linkset, the force=yes parameter must be specified.

Note:

If you do not wish to reload the **TDM** clock **LCA** bitfile, continue the procedure with 25.

23. Verify the status of the high-speed clocks by entering the rept-stat-clk command.

This is an example of the possible output.

rlghncxa03w 08-06-01 11:34:04 GMT EAGLE5 39.0.0							
COMPOSITE		PST	SST	AST			
SYSTE	M CLOCK	IS-NR	Active				
ALARM STATUS = No Alarms.							
Prima	ry Comp Clk 1114	(CLK A)	IS-NR	Active			
Prima	ry Comp Clk 1116	(CLK B)	IS-NR	Active			
Second	dary Comp Clk 11	.14 (CLK A)	IS-NR	Idle			
Second	dary Comp Clk 11	.16 (CLK B)	IS-NR	Idle			
Clock	Using	Bad					
CLK A	9	0					
CLK B	0	0					
CLK I	0						
HIGH SPEED	D	PST	SST	AST			
SYSTE	M CLOCK	IS-NR	Idle				
ALARM STATUS = No Alarms.							
Prima	ry HS Clk 1114	(HS CLK A)	IS-NR	Active			
Prima	ry HS Clk 1116	(HS CLK B)	IS-NR	Active			
Second	dary HS Clk 1114	(HS CLK A)	IS-NR	Idle			
Second	dary HS Clk 1116	(HS CLK B)	IS-NR	Idle			



нς	CLK	דעסד 11	14 -	RG422
110	СПК	III D II		. 10122
HS	CLK	LINELEN	1114 =	= LONGHAUL
HS	CLK	TYPE 11	16 =	RS422
HS	CLK	LINELEN	1116 =	LONGHAUL
Clo	ock	Usi	ng	Bad
HS	CLK	A 2		0
HS	CLK	в 0		0
HS	CLK	I 0		

Command Completed

If the rept-stat-clk output does not show any high-speed clocks (HIGH SPEED SYSTEM CLOCK, Primary HS Clk, Secondary HS Clk, HS CLK TYPE, and HS CLK LINELEN fields), the **EAGLE** does not contain any cards that are capable of using high-speed source timing.

Note:

If the HS CLK TYPE and HS CLK LINELEN values are set to the system default values (HS CLK TYPE = RS422 and HS CLK LINELEN = LONGHAUL), continue the procedure with 25.

24. Visually verify the part numbers of both E5-OAMs in the EAGLE.

To load the **E5-OAM** clock **LCA** bitfile, the part numbers of both **E5-OAMs** must be either an E5-MDAL or E5-MASP. Proceed to 26.

25. Load the flash **GPL** onto the card inhibited in 22 using the init-flash command with the code=appr parameter to load the approved version of the flash **GPL** onto the card.

Caution:

The init-flash command cannot be entered if the IMT Rate Change sequence or the Extended Bit Error Rate Test (**BERT**) is being performed.

For this example, enter this command.

init-flash:code=appr:loc=2105

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
FLASH Memory Downloading for card 2105 Started.
;
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
BPHCAP Downloading for card 2105 Complete.
;
```



rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
Command Completed.

Caution:

If reloading the clock **LCA** bitfile would cause a system clock outage, the force=yes parameter must be used with the init-flash command. A system clock outage can be caused by either the **EAGLE** having only one **E5-OAM** (a simplex **MASP** configuration) or if the status of the high-speed clocks, shown in the rept-stat-clk output in 23, on the **TDM** which is not being reset is Fault. A system clock outage will result in a loss of traffic on some or all signaling links.

The following command example loads the flash **GPL** onto the **E5-OAM** card and reloads the clock **LCA** bitfile.

init-flash:initclk=yes:loc=1113:code=appr

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
FLASH Memory Download for card 1113 Started.
;
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
FLASH Memory Download for card 1113 Completed.
```

Updating more than One Card at the Same Time

If more than one card running the same flash **GPL** is being updated, enter the init-flash command with these parameters along with the code=appr parameter:

sloc – the first card location in the range of card locations

eloc - the last card location in the range of card locations

gpl – the flash **GPL** being updated

Note:

The sloc, eloc, and gpl parameters cannot be specified with the loc parameter. When the sloc, eloc, and gpl parameters are specified, only the cards running the flash **GPL** specified by the gpl parameter and within the range specified by the sloc and eloc parameters are updated. All other cards in the range specified by the sloc and eloc parameters are skipped.

Entering this example command will update the cards in the locations 1101 to 2115 running the OAMHC flash **GPL** with the approved version of the OAMHC **GPL**.

init-flash:code=appr:sloc=1101:eloc=2115:gpl=blmcap


When this command has successfully completed, these messages should appear.

```
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
    FLASH Memory Download for cards 1101 - 2115 Started.
;
   rlqhncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
    FLASH Memory Download for cards 1101 - 2115 Completed.
   LOC 1101 : PASSED
   LOC 1102 : PASSED
    LOC 1112 : PASSED
    LOC 2105 : PASSED
    LOC 2107 : PASSED
    LOC 2111 : PASSED
    LOC 2112 : PASSED
    LOC 2115 : PASSED
   ALL CARD RESULTS PASSED
;
    rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
    Command Completed.
```

When the init-flash command has completed successfully, the card specified in the init-flash command is rebooted.

 Put the cards that were inhibited in 22 back into service using the alw-card command.

For this example, enter this command:

alw-card:loc=2105

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
Card has been allowed.
```

27. Verify that the flash GPL from 25 has loaded and that the card has returned to its in-service normal (IS-NR) state using the rept-stat-card command.

For this example, enter this command.

```
rept-stat-card:loc=2105
```

Note:

If the version number of the OAMHC **GPL** shown in the rept-statcard command output is different than the version specified in 9, contact the Customer Care Center. Refer to My Oracle Support (MOS) for the contact information.

28. Activate the approved flash **GPL** loaded onto the cards in 25 using the act-flash command.



Caution:

The act-flash command cannot be entered if the Extended Bit Error Rate Test (**BERT**) is being performed.

For this example, enter this command.

```
act-flash:loc=2105
```

Command Completed.

;

;

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
FLASH Memory Activation for card 2105 Completed.
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
```

Activating more than One Card at the Same Time

If more than one card running the same flash **GPL** was updated in 25, enter the act-flash command with these parameters:

sloc – the first card location in the range of card locations

eloc - the last card location in the range of card locations

gpl – the flash **GPL** being activated

Note:

The sloc, eloc, and gpl parameters cannot be specified with the loc parameter. When the sloc, eloc, and gpl parameters are specified, only the cards running the flash **GPL** specified by the gpl parameter and within the range specified by the sloc and eloc parameters are updated. All other cards in the range specified by the sloc and eloc parameters are skipped.

Entering this example command will activate the flash **GPL**s on the cards in the locations 1101 to 2115.

act-flash:sloc=1101:eloc=2115:gpl=blmcap

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
FLASH Memory Activation for cards 1101 - 2115 Started.
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
FLASH Memory Activation for cards 1101 - 2115 Completed.
LOC 1101 : PASSED
LOC 1102 : PASSED
LOC 1112 : PASSED
LOC 2105 : PASSED
```

```
LOC 2107 : PASSED
LOC 2111 : PASSED
LOC 2112 : PASSED
LOC 2115 : PASSED
ALL CARD RESULTS PASSED
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
Command Completed.
```

29. Verify the flash **GPLs** on the cards using the rept-stat-gpl command with the gpl parameter value specified in 7.

If any card is not running the release version of the flash **GPL**, shown in the RELEASE column of the rtrv-gpl output in 8, the indicator ALM is displayed next to the flash **GPL** version in the RUNNING column of the rept-stat-gpl output. For this example, enter this command.

rept-stat-gpl:gpl=oamhc

;

This is an example of the possible output.

rlghncxa	a03w 06-	-10-01 11:40	:26 GMT	EAGLE5 46.3	.0
GPL	CARD	RUNNING		APPROVED	TRIAL
OAMHC	1113	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	1115	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	1303	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	1307	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2101	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2103	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2105	132-003-00	0	132-003-000	132-002-000
OAMHC	2113	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2205	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2207	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2213	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2301	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2303	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2305	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2307	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	2311	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	3101	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	3103	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	3105	132-002-00	0 ALM	132-003-000	132-002-000
OAMHC	3107	132-002-00	0 ALM	132-003-000	132-002-000
Command	Complet	ed			

Note:

If the flash **GPL** being displayed by the rept-stat-gpl command is the OAMHC **GPL**, the output of the rept-stat-gpl command will show any E5-OAM cards that are inserted in the **EAGLE**, whether they are configured in the database or not.



Note:

If the card's application GPL, shown in the rept-stat-card output in 9, is OAMHC or BLMCAP perform 30 and 31, then go to 38. Skip 32 through 37.

30. Place the signaling links that were deactivated in 12 back into service using the act-slk command.

For this example, enter these commands.

act-slk:loc=1201:link=a
act-slk:loc=1201:link=b
act-slk:loc=1201:link=a1
act-slk:loc=1201:link=b1

When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 11:55:49 GMT EAGLE5 36.0.0
Activate SLK message sent to card
```

31. Verify that the signaling links activated in 30 are back in service using the reptstat-slk command with the card location and signaling link.

For this example, enter these commands.

rept-stat-slk:loc=1201:link=a

This is an example of the possible output.

rlghncxa	03w 06-10-0	01 13:06:25	GMT EAGLE5	36.0.0	
SLK	LSN	CLLI	PST	SST	AST
1201,A	lsnmpl1		- IS-NR	Avail	
ALARM S	STATUS	= No Alar	ms.		
UNAVAI	L REASON	=			

rept-stat-slk:loc=1201:link=b

This is an example of the possible output.

rlghncxa()3w 06-10-0)1 13:06:25 (GMT EAGLE5	36.0.0	
SLK	LSN	CLLI	PST	SST	AST
1201,B	lsnmpl2		IS-NR	Avail	
ALARM S	STATUS	= No Aları	ns.		
UNAVAII	REASON	=			

rept-stat-slk:loc=1201:link=a1



This is an example of the possible output.

rlqhncxa	03w 06-10-0	01 13:06:2	5 GMT EAGLE5	36.0.0	
SLK	LSN	CLLI	PST	SST	AST
1201,A1	lsnmpl3		IS-NR	Avail	
ALARM	STATUS	= No Al	arms.		
UNAVAI	L REASON	=			

rept-stat-slk:loc=1201:link=b1

This is an example of the possible output.

rlghncxa	03w 06-10-0	13:06:25	GMT EAGLE5	36.0.0	
SLK	LSN	CLLI	PST	SST	AST
1201,B1	lsnmpl4		- IS-NR	Avail	
ALARM S	STATUS	= No Ala	rms.		
UNAVAI	L REASON	=			
Command (Completed.				

32. Place the **TCP/IP** data link that was deactivated in 14 back into service using the act-dlk command.

For this example, enter this command.

act-dlk:loc=2105

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 11:55:49 GMT EAGLE5 36.0.0
Activate Link message sent to card.

33. Verify that the **TCP/IP** data links activated in 32 are back in service with the rept-stat-dlk command.

This is an example of the possible output.

rlghncx	ca03w	06-10-01	17:00:36	GMT	EAGLE5	36.0.0
DLK	PST		SST	AST	Г	
1303	IS-NF	2	Avail		-	
2101	IS-NF	2	Avail		-	
2103	IS-NF	2	Avail		-	
2105	IS-NF	2	Avail		-	
2113	IS-NF	2	Avail		-	
2301	IS-NF	2	Avail		-	

Note:

If the application GPL running on the card is not **EOAM**, continue the procedure with 38.



Note:

If the application GPL running on the card is **IPS**, perform 36 and 37, then go to 38. Skip 34 and 35.

34. If you wish to load the new GPL onto the E5-OAM card making up the active MASP, enter the init-card command specifying the location of the E5-OAM card making up active MASP.

For this example, enter the init-card:loc=1115 command. This message should appear.

rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
Init Card command issued to card 1115

After the init-card command has completed, repeat this procedure from 22, specifying the card location used in the init-card command.

If you did not wish to load the new version of the OAMHC **GPL** onto the other **E5-OAM** card running the EOAM application, continue this procedure with either 35 or 38 based on the following conditions:

- If SEAS terminals were not shown in the rtrv-trm command output in 18, continue the procedure with 38.
- If SEAS terminals were shown in the rtrv-trm command output in 18, continue the procedure with 35.
- **35.** Change the terminal type of the terminals that were changed to NONE in **21** to the terminal type SEAS with the chg-trm command and the type=seas parameter.

The terminal type is shown in the TYPE field in the rtrv-trm command output in 18.

For this example, enter these commands.

chg-trm:trm=27:type=seas

chg-trm:trm=36:type=seas

This message should appear when these commands have successfully completed.

```
rlghncxa03w 06-10-01 11:11:28 GMT EAGLE5 36.0.0
CHG-TRM: MASP B - COMPLTD
```

36. Put the required terminals back into service with the rst-trm command.

For this example, enter these commands.

rst-trm:trm=27

rst-trm:trm=36

If Telnet terminals were placed out of service in 20, for this example, enter these commands.

```
rst-trm:trm=17
```

rst-trm:trm=18
rst-trm:trm=19
rst-trm:trm=20
rst-trm:trm=21
rst-trm:trm=22
rst-trm:trm=23
rst-trm:trm=24
This message should an

This message should appear when each of these commands have successfully completed.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 Allow message sent to terminal

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.

37. Verify that the terminals are in service with the <code>rept-stat-trm</code> command.

This is an example of the possible output.

rlghr	ncxa03w	06-10-01	15:08:45	GMT	EAGLE5	36.0.0
TRM	PST	:	SST		AST	
1	IS-NR	i	Active			
2	IS-NR	i	Active			
3	IS-NR	i	Active			
4	IS-NR	i	Active			
5	IS-NR	i	Active			
6	IS-NR	i	Active			
7	IS-NR	i	Active			
8	IS-NR	i	Active			
9	IS-NR	i	Active			
10	IS-NR	i	Active			
11	IS-NR	i	Active			
12	IS-NR	i	Active			
13	IS-NR	i	Active			
14	IS-NR	i	Active			
15	IS-NR	i	Active			
16	IS-NR	i	Active			
17	IS-NR	i	Active			
18	IS-NR	i	Active			
19	IS-NR	i	Active			
20	IS-NR	i	Active			
21	IS-NR	i	Active			
22	IS-NR	i	Active			
23	IS-NR	i	Active			
24	IS-NR	i	Active			
25	IS-NR	i	Active			
26	IS-NR	i	Active			
27	IS-NR	i	Active			



28	IS-NR	Active	
29	IS-NR	Active	
30	IS-NR	Active	
31	IS-NR	Active	
32	IS-NR	Active	
33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

Command Completed.

38. Continue the procedure by performing these actions.

If E5-based control cards are installed in the EAGLE, continue the procedure by performing one of these actions.

- If the GPL will be loaded onto other cards, repeat this procedure from 8.
- If the GPL will not be loaded onto other cards, but other flash GPLs will be updated, repeat this procedure from 1.
- If the GPL will not be loaded onto other cards, and other flash GPLs will not be updated, this procedure is finished.





Figure 3-4 Updating the Flash GPLs

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Note: Each IPSM has 8 Telnet terminals associated with it. The *rtrv-trm* output shows the Telnet term that are associated with each IPSM.

Cautions:

1. Placing the Telnet terminals out of service will disable all Telnet sessions supported by the termina associated with the IPSM.

2. Multiple cards running the same flash GPL can be updated at the same time with the *init-flash* com This requires that the cards in the locations specified with the *init-flash* command are out of service. A cards running a one of these application GPLs (vsccp, mcp, eroute, ips) can be placed out of service. However, it is recommended that only some of the cards running a specific application GPL are place service. Placing all the cards running a specific application GPL out of service will cause the traffic can these cards to be lost and disable the features supported by these cards.



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Updating the HIPR2 GPL

This section presents the procedure for updating the HIPR2 generic program load (**GPL**). The HIPR2 GPL is used by the High-Speed **IMT** Packet Router 2 (**HIPR2**) card to control the **IMT** bus and resides on the fixed disk. The **HIPR2** card resides only in slots 9 and 10 in each shelf in the **EAGLE**.

This section presents the procedure for loading the HIPR2 GPL onto the **EAGLE** as a trial version from a removable media, then making the trial version of the HIPR2 GPL the approved version.

If any card is not running the approved version of the **GPL** shown in the RELEASE column of the rtrv-gpl output, the indicator ALM is displayed next to the **GPL** version in the RUNNING column of the rept-stat-gpl output, and next to the **GPL** version in the APPROVED column in the rtrv-gpl output.

The removable media that contains the HIPR2 GPL to be loaded on to the **EAGLE** is required.

1. Verify the control cards that are installed in the EAGLE.

Refer to Maintenance and Administration Subsystem for information about the control cards.

If E5-based control cards are installed in the EAGLE, continue the procedure with 2.

2. Check the E5-MASPs for removable media.

If removable media is installed in both E5-MASPs, continue the procedure with 4.

If removable media is not installed in both E5-MASPs, continue the procedure with 3.

3. Verify the active MASP by entering the rept-stat-db command.

This is an example of the possible output.

rlghncxa	a03w	09-07-0)1 15:25	5:40 @	JMT	EAGLE5	41.1	L.O		
DATABASI	E STA	TUS: >>	• OK <<							
	TDM	1114 (STDBY)				TDM	1116 (ACTV)	
	С	LEVEL	TIME	LAST	BACK	UP	С	LEVEL	TIME	LAST
BACKUP										
FD BKUP	Y	36	09-06-1	9 09:	38:2	5 GMT	Y	36	09-06-2	19
09:38:25	5 GMT	1								
FD CRNT	Y	39					Y	39		
	MCAP	9 1113					MCAE	2 1115		
RD BKUP	-	-	-		-		Y	36	09-06-2	19
09:27:17	7 GMT	1								
USB BKP	-	-	-		-		Y	3	09-06-	07
01:11:22	2 GMT	1								



If removable media is installed in the active MASP, continue the procedure with 4.

If removable media is not installed in the active MASP, insert the removable media in the removable media drive in the active MASP. For more information about inserting removable media in the removable media drive, refer to Removable USB Drive. After the removable media has been inserted in the removable media drive in the active MASP, continue the procedure with 4.

4. Display the HIPR2 GPLs on the fixed disk and on the removable media using the rtrv-gpl:gpl=hipr2 command.

This is an example of the possible output.

rlghncxa03w 09-07-01 11:34:04 GMT EAGLE5 41.1.0 GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL HIPR2 1114 132-002-000 132-002-000 132-001-000 132-003-000 1116 132-002-000 132-002-000 132-001-000 HIPR2 132-003-000 1115 -----HIPR2 _____ _____

If the version of the HIPR2 GPL shown in the REMOVE TRIAL column of the rtrv-gpl output is not the version that is to be loaded onto the cards, remove the removable media from the active MASP.

Insert the removable media that contains the HIPR2 GPL that is being updated into the removable media drive in the active MASP and repeat this step.

For more information about inserting removable media in the removable media drive, or removing removable media from the removable media drive, refer to Removable USB Drive.

If the version of the HIPR2 GPL shown in the REMOVE TRIAL column of the rtrv-gpl output is the version that is to be loaded onto the cards, continue the procedure with 5.

5. Change the GPLs, using the chg-gpl command and specifying the value for the trial HIPR2 GPL shown in the REMOVE TRIAL column in the output of the rtrv-gpl command used in 4.

For this example, enter this command.

chg-gpl:gpl=hipr2:ver=132-003-000

These messages should appear.

rlghncxa03w 09-07-01 11:43:04 GMT EAGLE5 41.1.0 GPL Auditing ON

HIPR2 upload on 1114 completed HIPR2 upload on 1116 completed



REMOVE

System Release ID table upload 1114 completed System Release ID table upload 1116 completed

💉 Note:

If you wish to leave the **HIPR2** cards running the trial version of the HIPR2 GPL, continue the procedure with 8.

6. Activate the trial **GPL**, using the act-gpl command and specifying the value for the trial HIPR2 GPL shown in 5.

For this example, enter this command.

act-gpl:gpl=hipr2:ver=132-003-000

These messages should appear.

```
rlghncxa03w 09-07-01 06:54:39 GMT EAGLE5 41.1.0
HIPR2 activate on 1114 completed
HIPR2 activate on 1116 completed
```

7. Verify that the HIPR2 GPL on the removable media is the approved **GPL** on the fixed disk using the rtrv-gpl:gpl=hipr2 command.

This is an example of the possible output.

```
rlghncxa03w 09-07-01 11:34:04 GMT EAGLE5 41.1.0
GPL Auditing ON
GPL CARD RELEASE APPROVED TRIAL
```

TRIAL				
HIPR2	1114	132-003-000	132-003-000	132-002-000
132-003-00	00			
HIPR2	1116	132-003-000	132-003-000	132-002-000

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

```
rlghncxa03w 09-07-01 11:34:04 GMT EAGLE5 41.1.0
GPL Auditing ON
```

GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIAL					
HIPR2	1114	132-003-000	132-003-000	132-002-000	
132-003-0	00				
HIPR2	1116	132-003-000	132-003-000	132-002-000	
132-003-0	00				
HIPR2	1115				



8. Verify the HIPR2 GPLs on the fixed disk and the cards that are running the HIPR2 GPLs using the rept-stat-gpl:gpl=hipr2 command.

This is an example of the possible output.

```
rlqhncxa03w 09-07-01 11:40:26 GMT EAGLE5 41.1.0
GPL
        CARD
              RUNNING
                               APPROVED
                                            TRIAL
HIPR2
        1109
              132-002-000 ALM 132-003-000
                                            132-002-000
        1110 132-002-000 ALM 132-003-000
                                            132-002-000
HIPR2
HIPR2
        1209
             132-002-000 ALM 132-003-000
                                            132-002-000
HIPR2
        1210
              132-002-000 ALM
                              132-003-000
                                            132-002-000
                              132-003-000
        1309
             132-002-000 ALM
                                            132-002-000
HIPR2
HIPR2
        1310
             132-002-000 ALM
                              132-003-000
                                            132-002-000
        2109
              132-002-000 ALM 132-003-000
                                            132-002-000
HIPR2
HIPR2
        2110
              132-002-000 ALM 132-003-000
                                             132-002-000
Command Completed
```

9. Load the approved HIPR2 GPL onto a card selected from the cards shown in 8 using the init-flash:code=appr command.

Caution:

The init-flash command cannot be entered if the IMT Rate Change sequence or the Extended Bit Error Rate Test (**BERT**) is being performed.

For this example, enter this command.

init-flash:code=appr:loc=1109

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
FLASH Memory Downloading for card 1109 Started.
;
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
HIPR2 Downloading for card 1109 Complete.
;
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
Command Completed.
```

Updating more than One HIPR2 Card at the Same Time

Multiple **HIPR2** cards can be updated at the same time with the init-flash command. The multiple **HIPR2** cards being updated must be on the same **IMT** bus. Specifying card locations **XX09** for the sloc and eloc parameters specifies the **HIPR2** cards on **IMT** bus A. Specifying card locations **XX10** for the sloc and eloc parameters specifies the **HIPR2** cards on **IMT** bus A.

To update more than one **HIPR2** card on the same **IMT** bus, enter the initflash command with these parameters along with the code=appr parameter:

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 ${\tt sloc}$ – the first card location in the range of card locations

eloc - the last card location in the range of card locations

```
gpl – hipr2
```

Note:

The sloc, eloc, and gpl parameters cannot be specified with the loc parameter.

For example, to update the **HIPR2** cards on **IMT Bus** B shown in 8 with the approved version of the HIPR2 GPL, enter this command.

init-flash:code=appr:sloc=1110:eloc=2110:gpl=hipr2

To update the **HIPR2** cards on **IMT** bus A shown in 8, the sloc=1109 and eloc=2109 parameters would be specified with the init-flash command.

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
FLASH Memory Download for cards 1110 - 2110 Started.
;
rlghncxa03w 09-07-01 13:07:15 GMT EAGLE5 41.1.0
FLASH Memory Download for cards 1110 - 2110 Completed.
LOC 1110 : PASSED
LOC 1210 : PASSED
LOC 1310 : PASSED
LOC 2110 : PASSED
ALL CARD RESULTS PASSED
;
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
Command Completed.
```

10. Re-initialize the HIPR2 cards specified in 9 using the init-mux command with the loc parameter.



```
init-mux:loc=1109
```

If more than one **HMUX** card was specified in 9, re-initialize the **IMT** bus containing the cards specified in 9 by entering init-mux command and specifying the **IMT** bus (the bus parameter) containing the cards specified in 9. Specifying card locations **XX09** for the sloc and eloc parameters in 9 requires



that **IMT** bus A is re-initialized. Specifying card locations **XX10** for the sloc and eloc parameters in 9 requires that **IMT** bus B is re-initialized.

For this example, enter this command.

init-mux:bus=a

When this command has successfully completed, this message should appear.

```
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
Command Completed.
```

Note:

Executing this command produces two alarms: 0002 - Card is not running approved GPL, indicating that the version of the HIPR2 GPL running on the card is not the approved version, and 0004 - Card is running non-activated GPL, indicating that the new version of the HIPR2 GPL running on the card has not been activated.

11. Verify that the approved HIPR2 GPL from 10 has loaded and that the state of the card is in-service normal (**IS-NR**) state using the rept-stat-card command.

If more than one card was specified in 9 and 10, enter the rept-stat-card command for each specified card. For this example, enter this command.

rept-stat-card:loc=1109:mode=full

rlqhncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0 CARD VERSION TYPE GPL PST SST AST 1109 132-003-000 HIPR2 HIPR2 IS-NR Active ____ ALARM STATUS = No Alarms TRIAL VERSION = 132-003-000 FPGA VERSION = 022 - 005Command Completed.

Note:

If the version number of the HIPR2 GPL shown in the rept-statcard command output is different than the version specified5 in, contact the Customer Care Center. Refer to My Oracle Support (MOS) for the contact information.

12. Activate the approved HIPR2 GPL loaded onto the card in 9 using the act-flash command.



Caution:

The act-flash command cannot be entered if the Extended Bit Error Rate Test (**BERT**) is being performed.

For this example, enter this command.

```
act-flash:loc=1109
```

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
FLASH Memory Activation for card 1109 Completed.
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
Command Completed.
```

Activating the HIPR2 GPL on more than One HIPR2 card at the Same Time

If more than one **HIPR2** card was specified in 9, enter the act-flash command with these parameters:

 ${\tt sloc}$ – the first card location in the range of card locations

eloc - the last card location in the range of card locations

gpl – hipr2

;



The sloc, eloc, and gpl parameters cannot be specified with the loc parameter.

For example, to activate the HIPR2 GPL on the **HIPR2** cards on **IMT Bus** B shown in 8 with the trial version of the HIPR2 GPL, enter this command.

act-flash:sloc=1110:eloc=2110:gpl=hipr2

To activate the HIPR2 GPL on the **HIPR2** cards on **IMT** bus A shown in 8, the sloc=1109 and eloc=2109 parameters would be specified with the act-flash command.

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0
FLASH Memory Activation for cards 1110 - 2110 Started.
;
rlghncxa03w 09-07-01 13:07:15 GMT EAGLE5 41.1.0
FLASH Memory Activation for cards 1110 - 2110 Completed.
LOC 1110 : PASSED
LOC 1210 : PASSED
LOC 1310 : PASSED
LOC 2110 : PASSED
```

ALL CARD RESULTS PASSED; rlghncxa03w 09-07-01 11:11:28 GMT EAGLE5 41.1.0 Command Completed.

13. Verify the HIPR2 GPLs on the fixed disk and the cards that are running the HIPR2 GPLs using the rept-stat-gpl:gpl=hipr2 command.

This is an example of the possible output.

rlghncxa	a03w 09-	07-01 11:4	10:26 GMI	' EAGLE5 41.1.	0
GPL	CARD	RUNNING		APPROVED	TRIAL
HIPR2	1109	132-003-0	000	132-003-000	132-002-000
HIPR2	1110	132-002-0	00 ALM	132-003-000	132-002-000
HIPR2	1209	132-002-0	00 ALM	132-003-000	132-002-000
HIPR2	1210	132-002-0	00 ALM	132-003-000	132-002-000
HIPR2	1309	132-002-0	00 ALM	132-003-000	132-002-000
HIPR2	1310	132-002-0	00 ALM	132-003-000	132-002-000
HIPR2	2109	132-002-0	00 ALM	132-003-000	132-002-000
HIPR2	2110	132-002-0	00 ALM	132-003-000	132-002-000
Command	Complet	ed			

- **14.** Continue the procedure by performing these actions.
 - If you wish to load the new HIPR2 GPL onto the other cards shown in 8, repeat this procedure from 9 for each card shown in 8.
 - If the new HIPR2 GPL has been loaded onto all the cards shown in 8, or if the new HIPR2 GPL will not be loaded onto the other cards shown in 8, then this procedure is finished.



Figure 3-5 Updating the HIPR2 GPL


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Making the Trial Utility GPL the Approved Utility GPL

This procedure is used to make the trial UTILITY generic program load (**GPL**) the approved UTILITY GPL.

The UTILITY GPL cannot be loaded and run from the removable cartridge like the other **GPLs**. The approved version of the UTILITY GPL is on the fixed disk. The trial version of the UTILITY GPL is located on the removable cartridge or removable media. This procedure loads the trial UTILITY GPL from the removable cartridge to the fixed disk and makes it the approved UTILITY GPL.

The removable cartridge or removable media that contains the UTILITY GPL to be loaded on to the **EAGLE** is required.

When the UTILITY GPL is displayed with the rtrv-gpl command, the entry CDU appears in the GPL column of the rtrv-gpl output.

1. Verify the control cards that are installed in the EAGLE.

Refer to Maintenance and Administration Subsystem for information about the control cards.

2. Check the E5-MASPs for removable media.

If removable media is installed in both E5-MASPs, continue the procedure with 4.

If removable media is not installed in both E5-MASPs, continue the procedure with 3.

3. Verify the active MASP by entering the rept-stat-db command.

This is an example of the possible output.

```
rlghncxa03w 09-03-01 15:25:40 GMT EAGLE5 40.1.0
DATABASE STATUS: >> OK <<
     TDM 1114 ( STDBY)
                              TDM 1116 ( ACTV )
     C LEVEL TIME LAST BACKUP C LEVEL
                                      TIME LAST
BACKUP
     _____
FD BKUP Y 36 09-02-19 09:38:25 GMT Y 36 09-02-19
09:38:25 GMT
FD CRNT Y 39
                              Y 39
                              MCAP 1115
     MCAP 1113
     - -----
                              - -----
RD BKUP - -
                      _
                              Y
                                   36 09-02-19
09:27:17 GMT
USB BKP -
                              Y 3 09-02-07
01:11:22 GMT
```

If removable media is installed in the active MASP, continue the procedure with 4.

If removable media is not installed in the active MASP, insert the removable media in the removable media drive in the active MASP. For more information about



inserting removable media in the removable media drive, refer to Removable USB Drive. After the removable media has been inserted in the removable media drive in the active MASP, continue the procedure with 4.

4. Display the UTILITY GPLs on the fixed disk and on the removable media using the rtrv-gpl:gpl=utility command.

This is an example of the possible output.

```
rlghncxa03w 09-03-01 07:01:08 GMT EAGLE5 40.1.0
GPL Auditing ON
GPL
        CARD RELEASE
                         APPROVED
                                        TRIAL
                                                    REMOVE
TRIAL
        1114 162-000-000 162-000-000
CDU
                                        162-001-000
162-001-000
        1116 162-000-000 162-000-000
                                        162-001-000
CDU
162-001-000
CDU
        1115 -----
                                        _____
_____
```

If the version of the UTILITY GPL shown in the REMOVE TRIAL column of the rtrv-gpl output is not the version that is to be loaded onto the cards, remove the removable media from the active MASP.

Insert the removable media that contains the UTILITY GPL that is being updated into the removable media drive in the active MASP and repeat this step.

For more information about inserting or removing removable media in the media drive, refer to Removable USB Drive.

If the version of the UTILITY GPL shown in the REMOVE TRIAL column of the rtrv-gpl output is the version that is to be loaded onto the cards, continue the procedure with 5.

5. Change the **GPLs**, using the chg-gpl command and specifying the value for the trial UTILITY GPL shown in the output of the rtrv-gpl command used in 4.

For this example, enter this command.

chg-gpl:gpl=utility:ver=162-001-000

This message should appear.

rlghncxa03w 09-03-01 06:52:20 GMT EAGLE5 40.1.0 GPL Auditing ON

UTILITY upload to 1114 completed UTILITY upload to 1116 completed System Release ID table upload 1114 completed System Release ID table upload 1116 completed

6. Display the UTILITY GPLs on the fixed disk and on the removable cartridge using the rtrv-gpl:gpl=utility command.



This is an example of the possible output.

rlghncxa03w 09-03-01 07:01:08 GMT EAGLE5 40.1.0 GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL CDU 1114 162-001-000 162-001-000 162-001-000 162-001-000 CDU 1116 162-001-000 162-001-000 _____ _____

This is an example of the possible output.

rlghncxa03w 09-03-01 07:01:08 GMT EAGLE5 40.1.0 GPL Auditing ON

GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE
TRIAL					
CDU	1114	162-001-000	162-001-000	162-001-000	
162-001-0	000				
CDU	1116	162-001-000	162-001-000	162-001-000	
162-001-0	000				
CDU	1115				

7. This procedure is finished.







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Reloading the TDM LCA Clock Bitfile

This procedure is used to reload the clock LCA (logic cell array) bitfile on the TDMs using the init-card command. To reload the TDM clock LCA bitfile, the E5-MCAP card associated with the TDM being reloaded is initialized by entering the init-card command with the initclk=yes parameter.

It is recommended that the card specified in the init-card command is the **GPSM-II** or E5-MCAP card in the standby **MASP**. The rept-stat-db output in 7 shows which **TDM** is the standby **TDM** with the indicator (STDBY) after the **TDM**'s card location. If the **TDM** in card location 1114 is the standby **TDM**, card location 1113 must be specified. If the **TDM** in card location 1116 is the standby **TDM**, card location 1115 must be specified.

The **TDM** clock **LCA** bitfile can be reloaded only on **TDMs** with part numbers 870-0774-15 or later. If the **EAGLE** contains older **TDMs**, these **TDMs** must be replaced with **TDMs** 870-0774-15 or later to perform this procedure.

Note:

Contact My Oracle Support (MOS) before replacing the TDMs.

The init-card also contains the force=yes parameter. The force=yes parameter can be used only with the initclk=yes parameter. The force=yes parameter must be used if reloading the **TDM** clock **LCA** bitfile would cause a system clock outage.

Caution:

A system clock outage can be caused by either the **EAGLE** having only one **TDM** (a simplex **MASP** configuration) or if the status of the high-speed clocks, shown in the rept-stat-clk output in 1, on the **TDM** which is not being reset is Fault. A system clock outage will result in a loss of traffic on some or all signaling links.

1. Verify the status of the high-speed clocks by entering the rept-stat-clk command. This is an example of the possible output.

rlghncxa03w 09-03-01 11:34:04	4 GMT EAGI	LE5 40.1.0		
COMPOSITE		PST	SST	AST
SYSTEM CLOCK		IS-NR	Active	
ALARM STATUS = No Alarms.				
Primary Comp Clk 1114	(CLK A)	IS-NR	Active	
Primary Comp Clk 1116	(CLK B)	IS-NR	Active	
Secondary Comp Clk 1114	(CLK A)	IS-NR	Idle	
Secondary Comp Clk 1116	(CLK B)	IS-NR	Idle	



Clock	Using	Bad			
CLK A	9	0			
CLK B	0	0			
CLK I	0				
HIGH SP	EED		PST	SST	AST
SYS	TEM CLOCK		IS-NR	Idle	
ALARM S	TATUS = No Al	arms.			
Pri	mary HS Clk 1	.114 (HS CLK A)	IS-NR	Active	
Pri	mary HS Clk 1	(HS CLK B)	IS-NR	Active	
Sec	ondary HS Clk	: 1114 (HS CLK A)	IS-NR	Idle	
Sec	ondary HS Clk	: 1116 (HS CLK B)	IS-NR	Idle	
HS CLK	TYPE 1114	= RS422			
HS CLK	LINELEN 1114	= LONGHAUL			
HS CLK	TYPE 1116	= RS422			
HS CLK	LINELEN 1116	= LONGHAUL			
Clock	Using	Bad			
HS CLK	A 2	0			
HS CLK	в 0	0			
HS CLK	I 0				

Command Completed

If the rept-stat-clk output does not show any high-speed clocks HIGH SPEED SYSTEM CLOCK, Primary HS Clk, Secondary HS Clk, HS CLK TYPE, and HS CLK LINELEN fields), the EAGLE does not contain any cards that are capable of using high-speed source timing.

- If the HS CLK TYPE and HS CLK LINELEN values shown in 1 are set to the system default values (HS CLK TYPE = RS422 and HS CLK LINELEN = LONGHAUL), continue the procedure with 3.
- If the HS CLK TYPE and HS CLK LINELEN values shown in 1 are not set to the system default values (HS CLK TYPE = RS422 and HS CLK LINELEN = LONGHAUL), continue the procedure with 2.
- 2. Visually verify the part numbers of both TDMs in the EAGLE. To load the TDM clock LCA bitfile, the part numbers of both TDMs must be 870-0774-15 or later.

If the TDM part numbers are 870-0774-15 or later, continue the procedure with 3.

If the TDM part numbers are not 870-0774-15 or later, the TDMs must be replaced with TDM part numbers 870-0774-15 or later. Contact the Customer Care Center before replacing the TDMs. Refer to My Oracle Support (MOS) for the contact information. If the older TDMs are not replaced, this procedure cannot be performed.

3. Display the terminal configuration in the database with the rtrv-trm command.

If any SEAS terminals are present, they must be taken out of service. The SEAS terminals are shown in the output with the entry SEAS in the TYPE field. If no SEAS terminals are shown in the rtrv-trm command output, continue the procedure with 7.



This is an example of the possible output. In this example, the SEAS terminals are terminals 18 and 27.

rlgh	incxa03w 1	0-07-01 16:0	2:08 G	MT EAGI	LE5 42	.0.0	
TRM	TYPE	COMM	FC	TMOUT	MXINV	DURAL	
1	VT320	9600-7-E-1	SW	30	5	99:59:59	
2	KSR	9600-7-E-1	HW	30	5	INDEF	
3	PRINTER	4800-7-E-1	HW	30	0	00:00:00	
4	VT320	2400-7-E-1	BOTH	30	5	00:30:00	
5	VT320	9600-7-0-1	NONE	30	5	00:00:30	
6	VT320	9600-7-0-1	NONE	30	5	00:00:30	
7	PRINTER	9600-7-N-2	HW	30	5	00:30:00	
8	KSR	19200-7-E-2	BOTH	30	5	00:30:00	
9	VT320	9600-7-0-1	NONE	30	5	00:00:30	
10	VT320	9600-7-E-1	HW	30	5	00:30:00	
11	VT320	4800-7-E-1	HW	30	5	00:30:00	
12	PRINTER	9600-7-E-1	HW	30	4	00:30:00	
13	VT320	9600-7-0-1	NONE	30	5	00:30:00	
14	VT320	9600-7-E-2	SW	30	8	00:30:00	
15	VT320	9600-7-N-2	HW	30	5	00:30:00	
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00	
TRM	TYPE	LOC		TMOUT	MXINV	DURAL	SECURE
17	TELNET	1201		60	5	00:30:00	yes
18	SEAS	1201		60	5	00:30:00	yes
19	TELNET	1201		60	5	00:30:00	yes
20	TELNET	1201		60	5	00:30:00	yes
21	TELNET	1201		60	5	00:30:00	yes
22	TELNET	1201		60	5	00:30:00	yes
23	TELNET	1201		60	5	00:30:00	yes
24	TELNET	1201		60	5	00:30:00	yes
25	TELNET	1203		60	5	00:30:00	yes
26	TELNET	1203		60	5	00:30:00	yes
27	SEAS	1203		60	5	00:30:00	yes
28	TELNET	1203		60	5	00:30:00	yes
29	TELNET	1203		60	5	00:30:00	yes
30	TELNET	1203		60	5	00:30:00	yes
31	TELNET	1203		60	5	00:30:00	yes
32	TELNET	1203		60	5	00:30:00	yes
33	TELNET	1205		60	5	00:30:00	yes
34	TELNET	1205		60	5	00:30:00	yes
35	TELNET	1205		60	5	00:30:00	yes
36	TELNET	1205		60	5	00:30:00	yes
37	TELNET	1205		60	5	00:30:00	yes
38	TELNET	1205		60	5	00:30:00	yes
39	TELNET	1205		60	5	00:30:00	yes
40	TELNET	1205		60	5	00:30:00	yes



Note:

The rtrv-trm command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrvtrm command, see the rtrv-trm command description in *Commands User's Guide*.

4. Display the status of the terminals with the rept-stat-trm command. This is an example of the possible output.

TRM	PST	SST	AST
1	IS-NR	Active	
2	IS-NR	Active	
3	IS-NR	Active	
4	IS-NR	Active	
5	IS-NR	Active	
б	IS-NR	Active	
7	IS-NR	Active	
8	IS-NR	Active	
9	IS-NR	Active	
10	IS-NR	Active	
11	IS-NR	Active	
12	IS-NR	Active	
13	IS-NR	Active	
14	IS-NR	Active	
15	IS-NR	Active	
16	IS-NR	Active	
17	IS-NR	Active	
18	IS-NR	Active	
19	IS-NR	Active	
20	IS-NR	Active	
21	IS-NR	Active	
22	IS-NR	Active	
23	IS-NR	Active	
24	IS-NR	Active	
25	IS-NR	Active	
26	IS-NR	Active	
27	IS-NR	Active	
28	IS-NR	Active	
29	IS-NR	Active	
30	IS-NR	Active	
31	IS-NR	Active	
32	IS-NR	Active	
33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0



Command Completed.

5. Place the SEAS terminals out of service using the rmv-trm command with the number of the terminal displayed in 4 whose state is not OOS-MT-DSBLD.

The force=yes parameter must be used when placing the last SEAS terminal out of service.

If SEAS terminals are shown in the rtrv-trm output in 3, for this example, enter these commands.

```
rmv-trm:trm=18
```

rmv-trm:trm=27:force=yes



Placing the SEAS terminals out of service will disable the SEAS feature on the EAGLE.

If the status of any of the terminals shown in the PST field in 4 is OOS-MT-DSBLD (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

This message should appear when each of these commands have successfully completed.

rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0
Inhibit message sent to terminal

```
rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0
Command Completed.
```

- 6 is performed only if the SEAS terminals were placed out of service in this step. If the SEAS terminals were not placed out of service in this step, continue the procedure with 7.
- If the SEAS terminals were placed out of service in this step, continue the procedure with 6.
- 6. Change the terminal type of the SEAS terminals to **NONE** with the chg-trm command, the type=none parameter, and with the values of the SEAS terminals used in 5.

If SEAS terminals are shown in the rtrv-trm output in 3, for this example, enter these commands.

chg-trm:trm=18:type=none

chg-trm:trm=27:type=none

This message should appear when these commands have successfully completed.

```
rlghncxa03w 09-03-01 11:11:28 GMT EAGLE5 40.1.0
CHG-TRM: MASP B - COMPLTD
```



7. Enter the rept-stat-db command, to determine which MASP is active. This is an example of the possible output.

```
rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0
DATABASE STATUS: >> OK <<
      TDM 1114 ( ACTV )
                                 TDM 1116 (STDBY)
      C LEVEL TIME LAST BACKUP
                                 C LEVEL TIME LAST
BACKUP
       - ----- ------- - -------
_____
FD BKUP Y
           35 09-02-19 10:19:18 GMT Y 35 09-02-19
10:19:18 GMT
           106
                                       106
FD CRNT Y
                                  Y
      MDAL 1117
       - -----
RD BKUP -
         _
                   -
```

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

rlghncxa	03w 0	9-03-01	16:07:48	GMT	EAGLE5	40.1	.0		
DATABASE	STAT	US: >> 01	<u> </u>						
	TDM 1	.114 (AC	IV)			TDM 1	1116 (STDBY)	
	СL	EVEL	TIME LA	ST BAC	KUP	СI	LEVEL	TIME I	LAST
BACKUP									
								_	
FD BKUP	Y	35 09	9-02-19	10:19:	18 GMT	Y	3	5 09-02-1	9
10:19:18	GMT								
FD CRNT	Y	106				Y	10	6	
I	MCAP	1113				MCAP	1115		
RD BKUP	-	-	-	-		-	-	-	-
USB BKP	-	-	-	-		Y	3	09-02-07	
01:11:22	GMT								

The output of the rept-stat-db command shows which **MASP** is active with the indicator (ACTV) following the **TDM** card location. The indicator (STDBY) following the **TDM** card location shows which **MASP** is standby.

For this example, the **MASP** associated with **TDM** 1114 is active and the **MASP** associated with **TDM** 1116 is standby.

8. Place the E5-MCAP card in the standby MASP out of service using the rmv-card command.

The rept-stat-db output in 7 shows which TDM is the standby TDM with the entry (Standby) after the TDMs card location. If the TDM in card location 1114 is the standby TDM, card location 1113 must be specified in this step. If the TDM in card location 1116 is the standby TDM, card location 1115 must be specified in this step.

For this example, enter this command.

ORACLE

```
rmv-card:loc=1115
```

When this command has successfully completed, this message should appear.

rlghncxa03w 09-03-01 11:11:28 GMT EAGLE5 40.1.0
Card has been inhibited.

9. Load the TDM clock LCA bitfile onto the TDM associated with the E5-MCAP card inhibited in 8 using the init-card command with the initclk=yes parameter and the card location of the standby E5-MCAP card.

Caution:

If reloading the TDM clock LCA bitfile would cause a system clock outage, the force=yes parameter must be used with the init-card command. A system clock outage can be caused by either the EAGLE having only one TDM (a simplex MASP configuration) or if the status of the high-speed clocks, shown in the rept-stat-clk output in 1, on the TDM which is not being reset is Fault. A system clock outage will result in a loss of traffic on some or all signaling links.

For this example, enter this command.

init-card:initclk=yes:loc=1115

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 09-03-01 13:01:59 GMT EAGLE5 40.1.0
Init Card command issued to card 1115
;
rlghncxa03w 09-03-01 13:01:59 GMT EAGLE5 40.1.0
* 3021.0013 * CARD 1115 EOAM Card is isolated from the
system
;
rlghncxa03w 09-03-01 13:03:10 GMT EAGLE5 40.1.0
3022.0014 CARD 1115 EOAM Card is present
ASSY SN: 1216115
```

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

rlghncxa03w 09-03-01 13:03:10 GMT EAGLE5 40.1.0



3022.0014	CARD	1115	OAMHC	Card	is	present
	ASSY	SN:	1216115			

10. Put the E5-MCAP card that was inhibited in 9 back into service using the rstcard command with the card location specified in 9. For this example, enter this command.

rst-card:loc=1115

When this command has successfully completed, this message should appear.

rlghncxa03w 09-03-01 11:11:28 GMT EAGLE5 40.1.0
Card has been allowed.

- If the TDM clock LCA bitfile will not be loaded on the other TDM in the EAGLE, continue the procedure with 12.
- If the TDM clock LCA bitfile will be loaded on the other TDM in the EAGLE, continue the procedure with 11.
- 11. If you wish to load the TDM clock LCA bitfile onto the TDM making up the active MASP, enter the init-card command specifying the location of the E5-MCAP card making up active MASP. Initializing the E5-MCAP card of the active MASP makes the MASPs switch roles. The active MASP becomes the standby MASP, and the standby (text is missing from this point).

For this example, enter the init-card:loc=1113 command. This message should appear.

rlghncxa03w 09-03-01 11:11:28 GMT EAGLE5 40.1.0 Init Card command issued to card 1113

After the init-card command has completed, repeat the procedure from 8, specifying the card location used in the init-card command.

12. Verify the status of the high-speed clocks by entering the rept-stat-clk command. This is an example of the possible output.

rlghncxa03w 09-03-01 11:34:04 GMT EAGLE5 40.1.0						
COMPOSITE		PST	SST	AST		
SYSTEM CLOCK		IS-NR	Active			
ALARM STATUS = No Alarms.						
Primary Comp Clk 1114	(CLK A)	IS-NR	Active			
Primary Comp Clk 1116	(CLK B)	IS-NR	Active			
Secondary Comp Clk 1114	(CLK A)	IS-NR	Idle			
Secondary Comp Clk 1116	(CLK B)	IS-NR	Idle			
Clock Using Bac	1					
CLK A 9 0						
CLK B 0 0						
CLK I 0	-					
HIGH SPEED		PST	SST	AST		
SYSTEM CLOCK		IS-NR	Idle			
ALARM STATUS = No Alarms.						



	Pr	imary H	IS Clk 1	114	(HS	CLK	A)	IS-NF	2	Active	-	
	Pr	imary H	IS Clk 1	116	(HS	CLK	B)	IS-NF	2	Active	-	
	Sec	condary	HS Clk	1114	(HS	CLK	A)	IS-NF	2	Idle	-	
	Sec	condary	HS Clk	1116	(HS	CLK	B)	IS-NF	2	Idle	-	
HS	CLK	TYPE 1	.114	= RS42	22							
HS	CLK	LINELE	N 1114	= LONG	HAUI	L						
HS	CLK	TYPE 1	.116	= RS42	22							
HS	CLK	LINELE	N 1116	= LONG	HAUI	L						
Clo	ock	Us	ing	Ba	ıd							
HS	CLK	A	2	()							
HS	CLK	В	0	C)							
HS	CLK	I	0	-								

Command Completed

- If 6 was not performed, continue the procedure with 16.
- If 6 was performed, continue the procedure with 13.
- **13.** If SEAS terminals were changed in 6, for this example, enter these commands.

```
chg-trm:trm=18:type=seas
```

chg-trm:trm=27:type=seas

This message should appear when these commands have successfully completed.

```
rlghncxa03w 09-03-01 11:11:28 GMT EAGLE5 40.1.0
CHG-TRM: MASP B - COMPLTD
```

14. Put the SEAS terminals back into service using the rst-trm command with the number of the terminals specified in **13**. For this example, enter these commands.

```
rst-trm:trm=18
```

rst-trm:trm=27

This message should appear when each of these commands have successfully completed.

rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0 Allow message sent to terminal

rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0
Command Completed.

15. Verify that the terminals are in service with the rept-stat-trm command. This is an example of the possible output.

rlghncxa03w 09-03-01 15:08:45 GMT EAGLE5 40.1.0 AST TRM PST SST 1 IS-NR Active ____ 2 IS-NR Active ____ 3 IS-NR Active ____ 4 IS-NR Active ____



5	IS-NR	Active	
б	IS-NR	Active	
7	IS-NR	Active	
8	IS-NR	Active	
9	IS-NR	Active	
10	IS-NR	Active	
11	IS-NR	Active	
12	IS-NR	Active	
13	IS-NR	Active	
14	IS-NR	Active	
15	IS-NR	Active	
16	IS-NR	Active	
17	IS-NR	Active	
18	IS-NR	Active	
19	IS-NR	Active	
20	IS-NR	Active	
21	IS-NR	Active	
22	IS-NR	Active	
23	IS-NR	Active	
24	IS-NR	Active	
25	IS-NR	Active	
26	IS-NR	Active	
27	IS-NR	Active	
28	IS-NR	Active	
29	IS-NR	Active	
30	IS-NR	Active	
31	IS-NR	Active	
32	IS-NR	Active	
33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

Command Completed.

16. Back up the new changes using the chg-db:action=backup:dest=fixed command. These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.







Notes:

1. High-speed clocks (the HS SYSTEM CLOCK, HS PRIMARY CLK, HS SECONDARY CLK, HS CLK TYPE, and HS CLK LINELEN fields) are shown in the *rept-stat-clk* output only when the EAGLE 5 ISS contains cards capable of using high-speed master timing.

2. The system default values are:

HS CLK TYPE - RS422

HS CLK LINELEN - LONGHAUL



Sheet 1 of 3





Sheet 2 of 3





Updating the BLIXP GPL

The BLIXP GPL is a tar image of all the flash GPLs that are necessary to operate the cards shown in Table 3-4. When the BLIXP GPL is downloaded to the card, the tar image is un-archived and the flash GPLs are loaded onto the card.

Table 3-4	High-Capacity	Cards
-----------	----------------------	-------

HC MIM	E5-E1T1	E5-ENET
E5-STC		E5-SM4G
E5-ATM	E5-TSM	

This procedure updates the BLIXP GPL using the <code>init-flash</code> and <code>act-flash</code> commands.

Caution:

The init-flash command cannot be entered if the IMT Rate Change sequence or the Extended Bit Error Rate Test (BERT) is being performed. The act-flash command cannot be entered if the Extended Bit Error Rate Test (BERT) is being performed.

The applications and entities supported by the high-capacity cards are shown in Table 3-5.

High-Capacity Card	Card Name (as shown on the card label)	Application	Application GPL Running on the Card	Supported Entities
HC MIM	HC MIM	SS7ANSI, CCS71TU	SS7HC	E1 or T1 signaling links
E5-E1T1	E5-E1T1	SS7ANSI, CCS71TU	SS7HC	E1 or T1 signaling links
E5-ENET	E5-ENET	SS7IPGW, IPLIM, IPLIMI, IPGWI, IPSG	IPLHC, IPGHC, IPSG	IP signaling links
E5-STC	E5-ENET	EROUTE	ERTHC	EAGLE 5 Integrated Monitoring Support
E5-SM4G	E5-SM4G	VSCCP	SCCPHC	GTT-related features

Table 3-5 High-Capacity Card Applications



High-Capacity Card	Card Name (as shown on the card label)	Application	Application GPL Running on the Card	Supported Entities
E5-ENET-B/SLIC	E5-ENET-B SLIC	IPS	IPSHC	Telnet sessions for remote connections to the EAGLE and SEAS terminals for the SEAS over IP feature
E5-ATM	E5-ATM	ATMANSI, ATMITU	ATMHC	ANSI and ITU ATM high-speed signaling links
E5-TSM	E5-TSM	GLS	GLSHC	Gateway Screening related features

Table 3-5 (Cont.) High-Capacity Card Applications

A removable cartridge or removable media containing the BLIXP GPL that is being updated is required.

Caution:

Before any high-capacity card can be updated with the BLIXP GPL, all the traffic hosted by the high-capacity card must be stopped, and the highcapacity card must be taken out of service.

Canceling the REPT-STAT-SLK and RTRV-SLK Commands

Because the rept-stat-slk and rtrv-slk commands used in this procedure can output information for a long period of time, the rept-stat-slk and rtrv-slk commands can be canceled and the output to the terminal stopped. There are three ways that the rept-stat-slk and rtrv-slk commands can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rept-statslk or rtrv-slk commands command were entered.
- Enter the canc-cmd without the trm parameter at the terminal where the reptstat-slk or rtrv-slk commands were entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the reptstat-slk or rtrv-slk commands were entered, from another terminal other that the terminal where the rept-stat-slk or rtrv-slk commands were entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user or rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Verify the control cards that are installed in the EAGLE.



Refer to Maintenance and Administration Subsystem for information about the control cards.

If E5-based control cards are installed in the EAGLE, continue the procedure with 2.

2. Check the E5-MASPs for removable media.

If removable media is installed in both E5-MASPs, continue the procedure with 4.

If removable media is not installed in both E5-MASPs, continue the procedure with 3.

3. Verify the active MASP by entering the rept-stat-db command.

This is an example of the possible output.

rlghncxa03w 10-12-01 15:25:40 GMT EAGLE5 43.0.0 DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP _____ FD BKUP Y 36 10-11-19 09:38:25 GMT Y 36 10-11-19 09:38:25 GMT FD CRNT Y 39 39 Y MCAP 1113 MCAP 1115 - -----_ ____ RD BKUP - -Y 36 10-11-19 --09:27:17 GMT Y 3 10-11-07 USB BKP -_ _ 01:11:22 GMT

If removable media is installed in the active MASP, continue the procedure with 4.

If removable media is not installed in the active MASP, insert the removable media in the removable media drive in the active MASP. For more information about inserting removable media in the removable media drive, refer to Removable USB Drive. After the removable media has been inserted in the removable media drive in the active MASP, continue the procedure with 4.

4. Display the BLIXP GPL on the fixed disk and on the removable media by entering this command.

rtrv-gpl:gpl=blixp

This is an example of the possible output.

rlghncxa03w 10-12-01 11:34:04 GMT EAGLE5 43.0.0 GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL BLIXP 1114 133-002-000 133-002-000 133-001-000 BLIXP 1116 133-002-000 133-002-000 133-001-000

```
133-003-000
BLIXP 1115 ----- -----
```

If the version of the BLIXP GPL shown in the REMOVE TRIAL column of the rtrv-gpl output is not the version that is to be loaded onto the cards, remove the removable media from the active MASP. Insert the removable media that contains the BLIXP GPL that is being updated into the removable media drive in the active MASP and repeat this step. For more information about inserting removable media in the removable media drive, or removing removable media from the removable media drive, refer to Removable USB Drive.

If the version of the BLIXP GPL shown in the REMOVE TRIAL column of the rtrv-gpl output is the version that is to be loaded onto the cards, continue the procedure with 133-.

5. Change the BLIXP GPL by entering the chg-gpl command with the gpl=blixp parameter and the version of the BLIXP GPL shown in the REMOVE TRIAL column in the output of the rtrv-gpl command used in 4.

For this example, enter this command.

chg-gpl:gpl=blixp:ver=133-003-000

These messages should appear.

rlghncxa03w 10-12-01 11:43:04 GMT EAGLE5 43.0.0 GPL Auditing ON

BLIXP upload on 1114 completed BLIXP upload on 1116 completed System Release ID table upload 1114 completed System Release ID table upload 1116 completed

6. Activate the trial GPL by entering the act-gpl command with the gpl=blixp parameter and the version of the trial GPL specified in 133-.

For this example, enter this command.

act-gpl:gpl=blixp:ver=133-003-000

These messages should appear.

rlghncxa03w 10-12-01 06:54:39 GMT EAGLE5 43.0.0
BLIXP activate on 1114 completed
BLIXP activate on 1116 completed

 Verify that the trial GPL has been made the approved GPL by entering this command.

rtrv-gpl:gpl=blixp

This is an example of the possible output.

rlghncxa03w 10-12-01 11:34:04 GMT EAGLE5 43.0.0 GPL Auditing ON



GPL	CARD	RELEASE	APPROVED	TRIAL	REMOVE	
TRIAL						
BLIXP	1114	133-003-000	133-003-000	133-002-000		
133-003-0	000					
BLIXP	1116	133-003-000	133-003-000	133-002-000		

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

```
rlghncxa03w 10-12-01 11:34:04 GMT EAGLE5 43.0.0
GPL Auditing ON
```

GPL CARD RELEASE APPROVED TRIAL REMOVE TRIAL BLIXP 1114 133-003-000 133-003-000 133-002-000 133-003-000 BLIXP 1116 133-003-000 133-003-000 133-002-000 133-003-000 1115 ----- -----BLIXP _____ _____

8. Verify the cards that are running the BLIXP GPL by entering this command

rept-stat-gpl:gpl=blixp

This is an example of the possible output.

```
rlghncxa03w 10-12-01 11:40:26 GMT EAGLE5 43.0.0
                     APPROVED
GPL
     CARD RUNNING
                                         TRIAL
BLIXP 1303 133-002-000 ALM 133-003-000 133-002-000
       2101 133-002-000 ALM 133-003-000 133-002-000
BLIXP
       2103 133-002-000 ALM 133-003-000
BLIXP
                                         133-002-000
BLIXP
       2205 133-002-000 ALM 133-003-000
                                         133-002-000
BLIXP
       2207 133-002-000 ALM 133-003-000
                                         133-002-000
BLIXP
       2211 133-002-000 ALM 133-003-000
                                         133-002-000
Command Completed
```

9. Display the status of the card, shown in the rept-stat-gpl output in 8, that the GPL will be loaded onto using the rept-stat-card command and specifying the location of the card.

For this example, enter this command.

rept-stat-card:loc=1303

For an **HC MIM** or E5-E1T1 card, this is an example of the possible output.

rlghnc>	ca03w 1	0-12-01	09:12:36	GMT	EAGLE5	43.0.0	
CARD	VERSIO	N T	TYPE	GPL		PST	SST
AST							
1303	134-00)3-000 I	LIME1	SS7H	IC	IS-NR	Active


ALARM STATUS =	No Alarms.	
BLIXP GPL version =	133-002-000	
IMT BUS A =	Conn	
IMT BUS B =	Conn	
SIGNALING LINK STATUS		
SLK PST	LS	CLLI
A IS-NR	e11303a	
B IS-NR	e11303b	
Al IS-NR	e11303a	
B3 IS-NR	e11303b	
Command Completed.		

rlghnc> CARD AST	a03w 1 VERSIC	0-12-01)N	09:12:36 TYPE	GMT EAGLE5 GPL	43.0.0 PST)	SST
1303	134-00	3-000	LIME1	SS7HC	IS-NR		Active
ALARN BLIXI BLBIC PLDPN BLRON IMT F IMT F SIGNA	1 STATU P GPI DS GPI 4C1 GPI 41 GPI BUS A BUS B ALING I	JS versic versic versic versic	= No Ala on = 133-00 on = 133-00 on = 133-00 on = 133-00 = Conn = Conn TUS	arms. 02-000 02-000 02-000 02-000			
5	SLK	PST		LS	(CLLI	
I	Į	IS-NR		e11303a			
E	3	IS-NR		e11303b			
I	41	IS-NR		e11303a	-		
E	33	IS-NR		e11303b	-		
Command	d Compl	eted.					

For an **E5-E1T1** card, this is an example of the possible output.

```
rlqhncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD VERSION TYPE GPL
                                         PST
                                                           SST
AST
1303 134-003-000 LIME1 SS7EPM
                                           IS-NR
                                                          Active
____
  ALARM STATUS = No Alarms.
 BLIXP GPL version = 133-002-000
 IMT BUS A
               = Conn
  IMT BUS B
                     = Conn

      CURRENT TEMPERATURE
      = 32C (90F)
      [ALARM TEMP: 60C (140F)]

      PEAK TEMPERATURE:
      = 39C (103F)
      [06-05-02 13:40]

  SIGNALING LINK STATUS
      SLK
           PST
                                 LS
                                                CLLI
      А
             IS-NR
                                e11303a
                                                _____
      В
             IS-NR
                                e11303b
                                                _____
      A1
            IS-NR
                                e11303a
                                                _____
```



B3 IS-NR e11303b -----Command Completed.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 134-003-000 LIME1 SS7EPM IS-NR Active ____ = No Alarms. ALARM STATUS BLIXP GPL version = 133-002-000 PLDPMC1 GPL version = 133-002-000 IMT BUS A = Conn IMT BUS B = Conn CURRENT TEMPERATURE = 32C (90F) [ALARM TEMP: 60C (140F)] PEAK TEMPERATURE: = 39C (103F) [06-05-02 13:40] SIGNALING LINK STATUS SLK PST LS CLLI IS-NR _____ А e11303a В IS-NR e11303b _____ A1 IS-NR e11303a _____ e11303b В3 IS-NR _____ Command Completed.

For an **E5-ENET** card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 134-003-000 DCM IPLHC IS-NR Active ____ ALARM STATUS = No Alarms. BLIXP GPL version = 133-002-000 IMT BUS A = Conn = Conn IMT BUS B CURRENT TEMPERATURE = 32C (90F) [ALARM TEMP: 60C (140F)] PEAK TEMPERATURE: = 39C(103F)[06-05-02 13:40] SIGNALING LINK STATUS SLK PST LS CLLI e11303a IS-NR _____ А В IS-NR e11303b _____ A1 IS-NR e11303a _____ В3 IS-NR e11303b _____ Command Completed. rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 134-003-000 DCM IPLHC IS-NR Active



_ _ _ _ _

ALARM STATUS	=	No Alarms.	
BLIXP GPL version	on =	133-002-000	
PLDPMC1 GPL version	on =	133-002-000	
IMT BUS A	=	Conn	
IMT BUS B	=	Conn	
CURRENT TEMPERATUR	RE	= 32C (90F)	[ALARM TEMP: 60C (140F)]
PEAK TEMPERATURE:		= 39C (103F)	[06-05-02 13:40]
SIGNALING LINK STA	ATUS		
SLK PST		LS	CLLI
A IS-NR		e11303a	
B IS-NR		e11303b	
Al IS-NR		e11303a	
B3 IS-NR		e11303b	
Command Completed.			

For an **E5-STC** card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 134-003-000 STC ERTHC IS-NR Active ____ ALARM STATUS = No Alarms. BLIXP GPL version = 133-002-000 IMT BUS A = Conn IMT BUS B = Conn CURRENT TEMPERATURE = 61C(142F)PEAK TEMPERATURE: = 61C (142F) [06-05-02 13:40] NTP broadcast = VALID STC IP PORT A: OOS-MT Unavail ____ ALARM STATUS = ** 0084 IP Connection Unavailable ERROR STATUS = DHCP Lease. Physical Link. STC IP PORT B: OOS-MT Unavail _ _ _ _ _ ALARM STATUS = ** 0084 IP Connection Unavailable ERROR STATUS = DHCP Lease. Physical Link. Command Completed.

For an **E5-SM4G** card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 134-003-000 DSM SCCPHC IS-NR Active -----ALARM STATUS = No Alarms. BLIXP GPL version = 133-002-000 IMT BUS A = Conn IMT BUS B = Conn CURRENT TEMPERATURE = 31C (88F) PEAK TEMPERATURE: = 32C (90F) [07-05-12 15:55]

```
SCCP % OCCUP
                 = 1%
Command Completed.
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD VERSION
                 TYPE
                         GPL PST
                                                SST
AST
1303 134-003-000 DSM
                         SCCPHC
                                 IS-NR
                                               Active
____
 ALARM STATUS = No Alarms.
 BLIXP GPL version = 133-002-000
 BLBSMG GPL version = 133-002-000
             = Conn
 IMT BUS A
 IMT BUS B
                 = Conn
 CURRENT TEMPERATURE = 31C ( 88F)
 PEAK TEMPERATURE: = 32C ( 90F) [07-05-12 15:55]
 SCCP % OCCUP
             = 1%
```

Command Completed.

For an E5-ENET-B/SLIC card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION PST TYPE GPL SST AST 1303 134-003-000 IPSM IPSHC IS-NR Active ____ = No Alarms. ALARM STATUS BLIXP GPL version = 133-002-000 = Conn IMT BUS A IMT BUS B = Conn CURRENT TEMPERATURE = 32C (90F) PEAK TEMPERATURE: = 39C (103F) [06-05-02 13:40] Command Completed.

For an **E5-ATM** card, this is an example of the possible output.

rlghncz	xa03w 10-12-01	L 09:12:36	GMT EAGLE5	43.0.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1303	134-003-000	LIMATM	ATMHC	IS-NR	Active
ALARI	M STATUS	= No Ala	rms.		
BLIX	P GPL versio	n = 133 - 0	02-000		
IMT I	BUS A	= Conn			
IMT I	BUS B	= Conn			
CURRI	ENT TEMPERATU	RE = 38	C (101F)		
PEAK	TEMPERATURE:	= 38	C (101F)	[07-11-23	06:10]
SIGN	ALING LINK STA	ATUS			
	SLK PST		LS	CLLI	



A IS-NR ls1 -----

Command Completed.

For an E5-TSM card, this is an example of the possible output.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD
    VERSION TYPE GPL
                                  PST
                                               SST
AST
1303
    134-003-000 TSM
                        GLSHC
                                  IS-NR
                                               Active
____
 ALARM STATUS = No Alarms.
 BLIXP GPL version = 133-002-000
 IMT BUS A
                 = Conn
 IMT BUS B
                 = Conn
 CURRENT TEMPERATURE = 38C (101F)
 PEAK TEMPERATURE: = 38C(101F)
                                [07-11-23 06:10]
```

Command Completed.

Continue the procedure by performing one of these actions:

- If card is running one of these application GPLs: SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC, IPSG (shown in the GPL column in the rept-stat-card output in 9), continue the procedure with 12.
- If card is running the ERTHC application GPL, (shown in the GPL column in the rept-stat-card output in 9), continue the procedure with 19.
- If the card is running the IPSHC application GPL, (shown in the GPL column in the rept-stat-card output in 9), continue the procedure with 16.
- If card is running the GLSHC application GPL, (shown in the GPL column in the rept-stat-card output in 9), continue the procedure with 10.
- If card is running the SCCPHC application GPL, (shown in the GPL column in the rept-stat-card output in 9), continue the procedure with 11.
- 10. Display the GLS cards by entering this command.

rept-stat-card:appl=gls

The output from this command will display the TSMs that are running the GLS GPL and the E5-TSMs that are running the GLSHC GPL.

This is an example of the possible output.

rlghncx	ka03w 10-12-02	1 09:12:36	GMT EAGLE5	43.0.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1207	133-003-000	TSM	GLSHC	IS-NR	Active
1211	133-003-000	TSM	GLSHC	IS-NR	Active



1303 133-003-000 TSM GLSHC IS-NR Active

Command Completed.

Continue the procedure with 19.

11. Display the service modules by entering the rept-stat-sccp command.

The output from this command will display the DSMs that are running the VSCCP GPL and the E5-SM4G cards that are running the SCCPHC GPL.

This is an example of the possible output.

CARD VERSION PST SST AST MSU USAGE CPU USAGE _____ 1303 133-003-000 IS-NR Active ____ 47% 81% 2103 133-003-000 IS-NR Active ____ 34% 50% 2111 133-003-000 IS-NR Active ____ 21% 29% 2115 133-003-000 IS-NR Active ____ 35% 52% 2117 133-003-000 IS-NR Active ____ 40% 71% _____ _____ SCCP Service Average MSU Capacity = 36% Average CPU Capacity = 56% Command Completed.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0

Note:

The rept-stat-sccp command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rept-stat-sccp command, refer to the rept-stat-sccp command description in *Commands User's Guide*.

Continue the procedure with 19.

12. Display the signaling links associated with the card shown in 9.

Enter the rtrv-slk command with the card location specified in 9. For this example, enter this command.

rtrv-slk:loc=1303

This is an example of the possible output for an HC MIM or E5-E1T1 card.

					L2T			PCR	PCR
E1	E1								
LOC	LINK	LSN	SLC	TYPE	SET	BPS	ECM	Nl	N2
LOC	PORT	TS							
1303	A	e11303a	0	LIME1	1	64000	PCR	76	3800
1303	2	12							
1303	В	e11303b	0	LIME1	1	56000	BASIC		
1303	1	2							
1303	A1	e11303a	1	LIME1	1	56000	BASIC		
1303	1	3							
1303	В3	e11303b	1	LIME1	1	56000	BASIC		
1303	1	7							

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0

This is an example of the possible output for an E5-ENET card.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0

LOC	LINK	LSN	SLC	TYPE	IPLIML2
1303	A	e11303a	0	IPLIM	M2PA
1303	В	e11303b	0	IPLIM	M2PA
1303	A1	e11303a	1	IPLIM	M2PA
1303	В3	e11303b	1	IPLIM	M2PA

This is an example of the possible output for an E5-ATM card.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0

					LΡ		ATM	
LOC	LINK	LSN	SLC	TYPE	SET	BPS	TSEL	VCI
VPI	LL							
1303	А	ls2	2	LIMATM	1	1544000	LINE	5
0	0							
1303	В	ls1	3	LIMATM	1	1544000	LINE	5
0	0							

Deactivate the SS7 signaling links on the card using the dact-slk command.
 For this example, enter these commands.

dact-slk:loc=1303:link=a
dact-slk:loc=1303:link=b
dact-slk:loc=1303:link=a1
dact-slk:loc=1303:link=b3



Caution:

These command examples place the signaling links on card 1303 out of service. This will interrupt service on the signaling links on card 1303 and allow the BLIXP GPL to be loaded on to card 1303.

Caution:

Do not deactivate all the signaling links assigned to these cards: HC MIMs, E5-E1T1, E5-ENET, E5-ATM, at the same time. Doing so will take all the E1, T1, IP, and ATM signaling links out of service, and the traffic on these signaling links could be lost.

Caution:

If the EAGLE contains only signaling links assigned to the card that is specified in this step, deactivating all of the signaling links that are assigned to the card will take all of these signaling links out of service and will isolate the EAGLE from the network.

When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Deactivate SLK message sent to card
```

Continue the procedure with 19.

14. Display the data link, and its status, associated with the card shown in 9. Enter the rept-stat-dlk command with the card location specified in 9.

For this example, enter this command.

rept-stat-dlk:loc=1303 This is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 DLK PST SST AST 1303 IS-NR Active ----Alarm Status = No Alarms. Command Completed.

15. Deactivate the TCP/IP data link on the card that you wish to load the GPL onto using the canc-dlk command. For this example, enter this command.

```
canc-dlk:loc=1303
```



Caution:

This command example places the TCP/IP data link on card 1303 out of service. This will interrupt service on the TCP//IP data link on card 1303 and allow the flash GPL to be loaded onto card 1303.

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Deactivate Link message sent to card.
Command Completed.
```

Continue the procedure with 19.

16. Display the terminal configuration in the database with the rtrv-trm command.

The Telnet terminals associated with the card shown in 9 must be taken out of service. The Telnet terminals are shown in the output with the entry TELNET in the TYPE field. This is an example of the possible output. In this example, the Telnet terminals that must be taken out of service are terminals 17 to 24.

rlghr	ncxa03w 1	10-12-01 09:	12:36	GMT EA	GLE5 43	3.0.0
TRM	TYPE	COMM	FC	TMOUT	MXINV	DURAL
1	VT320	9600-7-E-1	SW	30	5	99:59:59
2	KSR	9600-7-E-1	HW	30	5	INDEF
3	PRINTER	4800-7-E-1	HW	30	0	00:00:00
4	VT320	2400-7-E-1	BOTH	30	5	00:30:00
5	VT320	9600-7-0-1	NONE	30	5	00:00:30
б	VT320	9600-7-0-1	NONE	30	5	00:00:30
7	PRINTER	9600-7-E-2	HW	30	5	00:30:00
8	KSR	19200-7-E-2	BOTH	30	5	00:30:00
9	VT320	9600-7-0-1	NONE	30	5	00:00:30
10	VT320	9600-7-E-1	HW	30	5	00:30:00
11	VT320	4800-7-E-1	HW	30	5	00:30:00
12	PRINTER	9600-7-E-1	HW	30	4	00:30:00
13	VT320	9600-7-0-1	NONE	30	5	00:30:00
14	VT320	9600-7-E-2	SW	30	8	00:30:00
15	VT320	9600-7-E-2	HW	30	5	00:30:00
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00
TRM	TYPE	LOC		TMOU	T MXIN	V DURAL
17	TELNET	1303		60	5	00:30:00
18	TELNET	1303		60	5	00:30:00
19	TELNET	1303		60	5	00:30:00
20	TELNET	1303		60	5	00:30:00
21	TELNET	1303		60	5	00:30:00
22	TELNET	1303		60	5	00:30:00
23	TELNET	1303		60	5	00:30:00
24	TELNET	1303		60	5	00:30:00
25	TELNET	1203		60	5	00:30:00
26	TELNET	1203		60	5	00:30:00



27	TELNET	1203	60	5	00:30:00
28	TELNET	1203	60	5	00:30:00
39	TELNET	1203	60	5	00:30:00
30	TELNET	1203	60	5	00:30:00
31	TELNET	1203	60	5	00:30:00
32	TELNET	1203	60	5	00:30:00
33	TELNET	1208	60	5	00:30:00
34	TELNET	1208	60	5	00:30:00
35	TELNET	1208	60	5	00:30:00
36	TELNET	1208	60	5	00:30:00
37	TELNET	1208	60	5	00:30:00
38	TELNET	1208	60	5	00:30:00
39	TELNET	1208	60	5	00:30:00
40	TELNET	1208	60	5	00:30:00

Note:

The rtrv-trm command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrvtrm command, see the rtrv-trm command description in *Commands User's Guide*.

17. Display the status of the terminals with the rept-stat-trm command. This is an example of the possible output.

TRM	PST	SST	AST
1	IS-NR	Active	
2	IS-NR	Active	
3	IS-NR	Active	
4	IS-NR	Active	
5	IS-NR	Active	
6	IS-NR	Active	
7	IS-NR	Active	
8	IS-NR	Active	
9	IS-NR	Active	
10	IS-NR	Active	
11	IS-NR	Active	
12	IS-NR	Active	
13	IS-NR	Active	
14	IS-NR	Active	
15	IS-NR	Active	
16	IS-NR	Active	
17	IS-NR	Active	
18	IS-NR	Active	
19	IS-NR	Active	
20	IS-NR	Active	
21	IS-NR	Active	
22	IS-NR	Active	
23	IS-NR	Active	
24	IS-NR	Active	
25	IS-NR	Active	

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26	IS-NR	Active	
27	IS-NR	Active	
28	IS-NR	Active	
29	IS-NR	Active	
30	IS-NR	Active	
31	IS-NR	Active	
32	IS-NR	Active	
33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

Command Completed.

18. Place the required terminals out of service using the rmv-trm or inh-trm command. The function of the rmv-trm and the inh-trm commands are the same. For this example, enter these commands.

```
rmv-trm:trm=17
rmv-trm:trm=18
rmv-trm:trm=19
rmv-trm:trm=20
rmv-trm:trm=21
rmv-trm:trm=22
rmv-trm:trm=23
rmv-trm:trm=24
```

Note:

If the terminal that is being taken out of service is the last in service SEAS terminal, theforce=yes parameter must be specified with thermv-trm command for that terminal.

Caution:

Placing the Telnet terminals out of service will disable any Telnet sessions running on these terminals.

If the status of any of the terminals shown in the PST field in 17 is OOS-MT-DSBLD (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.



This message should appear when each of these commands have successfully completed.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 Inhibit message sent to terminal

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.

19. Place the card shown in 9 out of service using the rmv-card or inh-card command. The function of the rmv-card and the inh-card commands are the same.

Caution:

Multiple cards running the BLIXP GPL can be updated at the same time with the init-flash command (20). This requires that the cards in the locations specified with the init-flash command in 20 are out of service. All the high-capacity cards running the BLIXP GPL being updated can be placed out of service. However it is recommended that only some of these high-capacity cards are placed out of service. Placing all these high-capacity cards out of service will case all traffic hosted by high-capacity cards to be lost.

Caution:

If there is only one high-capacity card running the BLIXP GPL being updated, placing this card out of service will cause all the traffic hosted by this high-capacity card to be lost.

For this example, enter this command.

rmv-card:loc=1303

If more than one card running the same flash GPL is to be updated in 20, repeat this step for those cards.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 10-12-01 11:11:28 GMT EAGLE5 43.0.0
Card has been inhibited.
```

The force=yes parameter must be specified in this step if any of these conditions exist.

- The HC MIM, E5-E1T1, E5-ATM, or E5-ENET card contains the last signaling link in a linkset.
- The E5-TSM is the last GLS card that is in service.
- The service module is the last service module that is in service.



20. Load the approved version of the BLIXP GPL onto the card inhibited in 19 using the init-flash command with the code=appr parameter.

```
Caution:
The flash-card command cannot be entered if the IMT Rate Change
sequence or the Extended Bit Error Rate Test (BERT) is being
performed.
```

For this example, enter this command.

init-flash:code=appr:loc=1303:gpl=blixp

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
FLASH Memory Downloading for card 1303 Started.
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
BLIXP Downloading for card 1303 Complete.
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.
```

Updating more than One Card at the Same Time

If more than one card running the BLIXP GPL is being updated, enter the initflash command with these parameters along with the code=appr parameter:

sloc - the first card location in the range of card locations

eloc - the last card location in the range of card locations

gpl - blixp

Note:

The sloc, eloc, and gpl parameters cannot be specified with the loc parameter. When the sloc, eloc, and gpl parameters are specified, only the cards running the BLIXP GPL and within the range specified by the sloc and eloc parameters are updated. All other cards in the range specified by the sloc and eloc parameters are skipped.

Entering the example command will update the cards in the locations 1303 to 2103 running the BLIXP GPL with the approved version of the BLIXP GPL.

init-flash:code=appr:sloc=1303:eloc=2103:gpl=blixp

When this command has successfully completed, these messages should appear.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
FLASH Memory Download for cards 1303 - 2103 Started.



```
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
FLASH Memory Download for cards 1303 - 2103 Completed.
LOC 1303 : PASSED
LOC 2101 : PASSED
LOC 2103 : PASSED
ALL CARD RESULTS PASSED
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.
```

21. Put the cards that were inhibited in 19 back into service using the rst-card or alw-card command. The function of the rst-card and the alw-card commands are the same.

The ${\tt rst-card}$ command also loads the approved version of the ${\tt GPL}$ onto the card.

For this example, enter this command.

rst-card:code=appr:loc=1303

When this command has successfully completed, this message should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Card has been allowed.
```

22. Verify that the BLIXP GPL from 21 has loaded and that the card has returned to its in-service normal (IS-NR) state using the rept-stat-card command.

For this example, enter this command.

rept-stat-card:loc=1303

For an E5-E1T1 card, this is an example of the possible output.

```
rlqhncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD VERSION
              TYPE GPL
                              PST
                                          SST
AST
1303 134-003-000 LIME1
                     SS7HC
                              IS-NR
                                          Active
____
 ALARM STATUS = No Alarms.
 BLIXP GPL version = 133-003-000 +
 IMT BUS A = Conn
 IMT BUS B
               = Conn
 SIGNALING LINK STATUS
    SLK PST
                       LS
                                  CLLI
    A OOS-MT-DSBLD
                      e11303a
                                   _____
    В
        OOS-MT-DSBLD
                       e11303b
                                   _____
        OOS-MT-DSBLD
    A1
                        e11303a
                                   _____
```

B3 OOS-MT-DSBLD e11303b ------Command Completed.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD
     VERSION
                 TYPE GPL
                                   PST
                                                 SST
AST
1303 134-003-000 LIME1
                          SS7HC
                                   IS-NR
                                                Active
____
 ALARM STATUS = No Alarms.
 BLIXP GPL version = 133-003-000 +
 BLBIOS GPL version = 133-002-000
 PLDPMC1 GPL version = 133-002-000
 BLROM1 GPL version = 133-002-000
 IMT BUS A
                  = Conn
 IMT BUS B
                  = Conn
 SIGNALING LINK STATUS
     SLK
         PST
                          LS
                                        CLLI
         OOS-MT-DSBLDe11303aOOS-MT-DSBLDe11303b
                                        _____
     А
     В
                                        _____
                         e11303a
     A1
           OOS-MT-DSBLD
                                        _____
     В3
           OOS-MT-DSBLD
                          e11303b
                                        -----
Command Completed.
```

For an E5-E1T1 card, this is an example of the possible output.

rlghnc	xa03w	10-12-03	1 09:12:36	GMT EAGLE5	43.0.0	
CARD	VERSI	ON	TYPE	GPL	PST	SST
AST						
1303	134-0	03-000	IPLIM	SS7EPM	IS-NR	Active
ALAR	M STAT	US	= No Ala	arms.		
BLIX	EP GP	L versi	n = 133 - 0	03-000 +		
IMT	BUS A		= Conn			
IMT	BUS B		= Conn			
CURR	ENT TE	MPERATU	RE = 320	C (90F)	[ALARM TEMP:	60C (140F)]
PEAK	TEMPE:	RATURE:	= 390	C (103F)	[06-05-02 13:	40]
SIGN	ALING	LINK ST	ATUS			
	SLK	PST		LS	CLLI	
	A	IS-NR		e11303a		
	В	IS-NR		e11303b		
	A1	IS-NR		e11303a		
	В3	IS-NR		e11303b		
Comman	d Comp	leted.				

]	rlghncz	ka03w 10-12-01	L 09:12:36	GMT EAGLE5	43.0.0	
(CARD	VERSION	TYPE	GPL	PST	SST
2	AST					
-	1303	134-003-000	IPLIM	SS7EPM	IS-NR	Active



```
ALARM STATUS = No Alarms.
 BLIXP GPL version = 133-003-000 +
 PLDPMC1 GPL version = 133-002-000
  IMT BUS A
              = Conn
  IMT BUS B = Conn

      CURRENT TEMPERATURE
      = 32C ( 90F)
      [ALARM TEMP: 60C (140F)]

      PEAK TEMPERATURE:
      = 39C (103F)
      [06-05-02 13:40]

  SIGNALING LINK STATUS
      SLK
           PST
                                 LS
                                                CLLI
      А
             IS-NR
                                 e11303a
                                                -----
      В
                                 e11303b
                                                -----
            IS-NR
      A1
            IS-NR
                               e11303a
                                                _____
      В3
                                 e11303b
                                                -----
             IS-NR
Command Completed.
```

For an E5-ENET card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36	GMT EAGLE5	43.0.0	
CARD VERSION TYPE	GPL	PST	SST
ASI 1303 134-003-000 DCM	ТРІ.НС	TS-NR	Active
	II DIIC	10 100	11001100
ALARM STATUS = No Al	arms.		
BLIXP GPL version = 133-0	03-000 +		
IMT BUS A = Conn			
IMT BUS B = Conn			
CURRENT TEMPERATURE = 32	C (90F)	[ALARM TEMP:	60C (140F)]
PEAK TEMPERATURE: = 39	C (103F)	[06-05-02 13:	40]
SIGNALING LINK STATUS			
SLK PST	LS	CLLI	
A IS-NR	e11303a		
B IS-NR	e11303b		
A1 IS-NR	e11303a		
B3 IS-NR	e11303b		
Command Completed.			
rlghncxa03w 10-12-01 09:12:36	GMT EAGLE5	43.0.0	
CARD VERSION TYPE	GPL	PST	SST
AST			
1303 134-003-000 DCM	IPLHC	IS-NR	Active
ALARM STATUS = No Al	arms.		
BLIXP GPL version = 133-0	03-000 +		
PLDPMC1 GPL version = 133-0	02-000		
IMT BUS A = Conn			
IMT BUS B = Conn			
CURRENT TEMPERATURE = 32	C (90F)	[ALARM TEMP:	60C (140F)]
PEAK TEMPERATURE: = 39	C (103F)	[06-05-02 13:	40]
SIGNALING LINK STATUS			
SLK PST	LS	CLLI	
A IS-NR	e11303a		



В	IS-NR	e11303b	
Al	IS-NR	e11303a	
В3	IS-NR	e11303b	
Command Com	mpleted.		

For an E5-STC card, this is an example of the possible output.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD VERSION TYPE GPL PST
                                                SST
AST
                         ERTHC IS-NR
1303 134-003-000 STC
                                               Active
____
 ALARM STATUS = No Alarms.
 BLIXP GPL version = 133-003-000 +
 IMT BUS A
                  = Conn
 IMT BUS B
                  = Conn
 CURRENT TEMPERATURE = 61C (142F)
 PEAK TEMPERATURE: = 61C (142F)
                                    [06-05-02 13:40]
 NTP broadcast = VALID
 STC IP PORT A:
                                    OOS-MT Unavail
____
     ALARM STATUS = ** 0084 IP Connection Unavailable
    ERROR STATUS = DHCP Lease. Physical Link.
 STC IP PORT B:
                                    OOS-MT
                                                Unavail
_ _ _ _ _
     ALARM STATUS = ** 0084 IP Connection Unavailable
     ERROR STATUS = DHCP Lease. Physical Link.
Command Completed.
```

For an E5-SM4G card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 134-003-000 DSM SCCPHC IS-NR Active ____ ALARM STATUS = No Alarms. BLIXP GPL version = 133-003-000 + = Conn IMT BUS A IMT BUS B = Conn CURRENT TEMPERATURE = 31C (88F) PEAK TEMPERATURE: = 32C (90F) [07-05-12 15:55] SCCP % OCCUP = 1%

Command Completed.

rlghncz	ka03w 10-12-03	1 09:12:36	GMT EAGLE5	43.0.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1303	134-003-000	DSM	SCCPHC	IS-NR	Active



```
ALARM STATUS = No Alarms.

BLIXP GPL version = 133-003-000 +

BLBSMG GPL version = 133-002-000

IMT BUS A = Conn

IMT BUS B = Conn

CURRENT TEMPERATURE = 31C ( 88F)

PEAK TEMPERATURE: = 32C ( 90F) [07-05-12 15:55]

SCCP % OCCUP = 1%
```

Command Completed.

For an E5-ENET-B or SLIC card, this is an example of the possible output.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD VERSION TYPE GPL PST
                                               SST
AST
1303 134-003-000 IPSM
                         IPSHC
                                  IS-NR
                                             Active
____
 ALARM STATUS
              = No Alarms.
 BLIXP GPL version = 133-003-000 +
 IMT BUS A
           = Conn
 IMT BUS B
                 = Conn
 CURRENT TEMPERATURE = 32C (90F)
                  = 39C (103F)
 PEAK TEMPERATURE:
                                   [06-05-02 13:40]
 Command Completed.
```

For an E5-ATM card, this is an example of the possible output.

rlghnc	xa03w 10-12-01	L 09:12:36	GMT EAGLE5	43.0.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1303	134-003-000	LIMATM	ATMHC	IS-NR	Active
ALARI	M STATUS	= No Ala	rms.		
BLIX	P GPL versio	n = 133 - 00	03-000 +		
IMT 1	BUS A	= Conn			
IMT 1	BUS B	= Conn			
CURR	ENT TEMPERATU	RE = 380	C (101F)		
PEAK	TEMPERATURE:	= 380	C (101F)	[07-11-23 06	:10]
SIGN	ALING LINK STA	ATUS			
	SLK PST		LS	CLLI	
	A IS-NR		ls1		

Command Completed.

For an E5-TSM card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0



CARD	VERSION	TYPE	GPL	PST	SST
AST					
1303	134-003-000	TSM	GLSHC	IS-NR	Active
ALAF	RM STATUS	= No A	larms.		
BLIX	XP GPL versi	on = 133	-003-000 +		
IMT	BUS A	= Con	n		
IMT	BUS B	= Con	n		
CURF	RENT TEMPERATU	RE =	38C (101F)		
PEAK	TEMPERATURE:	=	38C (101F)	[07-11-23	3 06:10]

Command Completed.

The '+' symbol indicates that the BLIXP GPL has not been activated.

Note:

If the version number of the BLIXP GPL that is shown in this step is not the version specified in 1, contact the Customer Care Center. Refer to the My Oracle Support (MOS) section for the contact information.

23. Activate the BLIXP GPL loaded onto the cards specified in 20 by entering the act-flash command with the card location and the gpl=blixp parameter.

Caution:

The act-flash command cannot be entered if the Extended Bit Error Rate Test (BERT) is being performed.

For this example, enter this command.

act-flash:loc=1303:gpl=blixp

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
FLASH Memory Activation for card 1303 Completed.
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.
```

Activating more than One Card at the Same Time

If more than one card running the BLIXP GPL was updated in 20, enter the act-flash command with these parameters:

sloc – the first card location in the range of card locations

eloc - the last card location in the range of card locations

gpl – blixp

;



Note:

The sloc, eloc, and gpl parameters cannot be specified with the loc parameter. When the sloc, eloc, and gpl parameters are specified, only the cards running the BLIXP GPL and within the range specified by thesloc and eloc parameters are updated. All other cards in the range specified by the sloc and eloc parameters are skipped.

Entering this example command will activate the BLIXP GPL on the cards in the locations 1303 to 2103.

```
act-flash:sloc=1303:eloc=2103:gpl=blixp
```

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
FLASH Memory Activation for cards 1303 - 2103 Started.
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
FLASH Memory Activation for cards 1303 - 2103 Completed.
LOC 1303 : PASSED
LOC 2101 : PASSED
LOC 2103 : PASSED
ALL CARD RESULTS PASSED
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.
```

24. Verify the flash GPLs on the cards by entering this command.

If any card is not running the release version of the BLIXP GPL, shown in the RELEASE column of the rtrv-gpl output in 7, the indicator ALM is displayed next to the BLIXP GPL version in the RUNNING column of the rept-stat-gpl output. For this example, enter this command.

```
rept-stat-gpl:gpl=blixp
```

This is an example of the possible output.

```
rlqhncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
GPL
       CARD RUNNING
                             APPROVED
                                         TRIAL
BLIXP
       1303 133-003-000
                            133-003-000 133-002-000
BLIXP
       2101 133-002-000
                            133-003-000 133-002-000
BLIXP
       2103 133-002-000
                            133-003-000
                                         133-002-000
BLIXP
       2205 133-002-000 ALM 133-003-000
                                         133-002-000
BLIXP
       2207 133-002-000 ALM 133-003-000
                                         133-002-000
BLIXP
       2211 133-002-000 ALM 133-003-000
                                         133-002-000
Command Completed
```

Continue the procedure by performing one of these actions.



- If card is running one of these application GPLs: SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC, IPSG (shown in the GPL column in the rept-stat-card output in 22), continue the procedure with 25.
- If card is running one of these application GPLs: ERTHC, GLSHC, or SCCPHC, (shown in the GPL column in the rept-stat-card output in 22), continue the procedure with 31.
- If the card is running the IPSHC application GPL, (shown in the GPL column in the rept-stat-card output in 22), continue the procedure with 29.
- 25. Place the signaling links that were deactivated in 13 back into service using the act-slk command.

For this example, enter these commands.

act-slk:loc=1303:link=a
act-slk:loc=1303:link=b
act-slk:loc=1303:link=a1
act-slk:loc=1303:link=b3

When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Activate SLK message sent to card
```

26. Verify that the signaling links activated in 25 are back in service using the reptstat-slk command with the card location and signaling link.

For this example, enter these commands.

```
rept-stat-slk:loc=1303:link=a
```

This is an example of the possible output.

rlghncxa	03w 10-12-	01 09:12:36	GMT EAGLE5	43.0.0	
SLK	LSN	CLLI	PST	SST	AST
1303,A	e11303a		- IS-NR	Avail	
ALARM	STATUS	= No Alar	rms.		
UNAVAI	L REASON	=			

rept-stat-slk:loc=1303:link=b

This is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 SLK LSN CLLI PST SST AST 1303,B e11303b ----- IS-NR Avail ----ALARM STATUS = No Alarms. UNAVAIL REASON = --

rept-stat-slk:loc=1303:link=a1



This is an example of the possible output.

rlghncxa()3w 10-12-0	01 09:12	2:36 GMT EAGLE5	43.0.0	
SLK	LSN	CLLI	PST	SST	AST
1303,A1	e11303a		IS-NR	Avail	
ALARM S	STATUS	= No	Alarms.		
UNAVAII	L REASON	=			

rept-stat-slk:loc=1303:link=b3

This is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 SLK LSN CLLI PST SST AST 1303,B3 e11303b ----- IS-NR Avail ----ALARM STATUS = No Alarms. UNAVAIL REASON = --Command Completed.

Continue the procedure with 31.

27. Place the TCP/IP data link that was deactivated in 15 back into using the actdlk command. For this example, enter this command.

act-dlk:loc=1303

When this command has successfully completed, this message should appear.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 Activate Link message sent to card.

28. Verify that the TCP/IP data link activated in 27 is back in service with the reptstat-dlk command. For this example, enter this command.

rept-stat-dlk:loc=1303 This is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 DLK PST SST AST 1303 IS-NR Active ----Alarm Status = No Alarms. Command Completed.

Continue the procedure with 31.

29. Put the required terminals back into service with the rst-trm or alw-trm command. The function of the rst-trm and the alw-trm commands are the same. For this example, enter these commands.

rst-trm:trm=17
rst-trm:trm=18



rst-trm:trm=19
rst-trm:trm=20
rst-trm:trm=21
rst-trm:trm=22
rst-trm:trm=23
rst-trm:trm=24

This message should appear when each of these commands have successfully completed.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Allow message sent to terminal

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.

30. Verify that the terminals are in service with the rept-stat-trm command. This is an example of the possible output.

.0

rlghno	cxa03w	10-12-01	09:12:36	GMT	EAGLE5	43.0
TRM	PST		SST		AST	
1	IS-NR		Active			
2	IS-NR		Active			
3	IS-NR		Active			
4	IS-NR		Active			
5	IS-NR		Active			
б	IS-NR		Active			
7	IS-NR		Active			
8	IS-NR		Active			
9	IS-NR		Active			
10	IS-NR		Active			
11	IS-NR		Active			
12	IS-NR		Active			
13	IS-NR		Active			
14	IS-NR		Active			
15	IS-NR		Active			
16	IS-NR		Active			
17	IS-NR		Active			
18	IS-NR		Active			
19	IS-NR		Active			
20	IS-NR		Active			
21	IS-NR		Active			
22	IS-NR		Active			
23	IS-NR		Active			
24	IS-NR		Active			
25	IS-NR		Active			
26	IS-NR		Active			
27	IS-NR		Active			
28	IS-NR		Active			
29	IS-NR		Active			



30	IS-NR	Active	
31	IS-NR	Active	
32	IS-NR	Active	
33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

Command Completed.

31. Continue the procedure by performing one of these actions.

If you wish to load the new BLIXP GPL onto the other cards shown in 8, repeat this procedure from 9 for each card shown in 8.

If the new BLIXP GPL will not be loaded onto other cards, then this procedure is finished.



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Note: Each IPSM has 8 Telnet terminals associated with it. The *rtrv-trm* outp shows the Telnet terminals that are associated with each IPSM.

Caution:

1. Multiple high-capacity cards can be updated at the same time with the *init-flash* command. This requires that the high-capacity cards in the locations specified with the *init-flash* command are out of service.

However, it is recommended that only some of the high-capacity cards are placed out of service. Placing all the high-capacity cards out of service will cause all the traffic hosted by the high-capacity cards to be lost.

2. Placing the Telnet terminals out of service will disable all Telnet sessions supported by the terminals associated with the IPSM.



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Caution: Multiple high-capacity cards can be updated at the same time with the *init-flash* command. This requires that the high-capacity cards in the locations specified with the *init-flash* command are out of service.

However, it is recommended that only some of the high-capacity cards are placed out of service. Placing all the high-capacity cards out of service will cause all the traffic hosted by the high-capacity cards to be lost.



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Updating a High-Capacity Card to Run the BLIXP GPL

High-capacity cards that were issued before EAGLE Release 43.0 may not be loaded with the BLIXP GPL. This procedure updates the high-capacity card with the BLIXP **GPL** using the flash-card command. The BLIXP GPL is a tar image of all the flash GPLs that are necessary to operate the high-capacity cards. The high-capacity cards are shown in Table 3-6. When the BLIXP GPL is downloaded to the card, the tar image is un-archived and the flash GPLs are loaded onto the card.

Table 3-6 High-Capacity Cards

HC MIM	E5-E1T1	E5-ENET
E5-STC		E5-SM4G
E5-ATM	E5-TSM	

Caution:

The flash-card command cannot be entered if the IMT Rate Change sequence or the Extended Bit Error Rate Test (**BERT**) is being performed.

The applications and entities supported by the high-capacity cards are shown in Table 3-7.

Table 3-7 High-Capacity Card Applications

High-Capacity Card	Card Name (as shown on the card label)	Application	Application GPL Running on the Card	Supported Entities
HC MIM	HC MIM	SS7ANSI, CCS71TU	SS7HC	E1 or T1 signaling links
E5-E1T1	E5-E1T1	SS7ANSI, CCS71TU	SS7HC	E1 or T1 signaling links
E5-ENET	E5-ENET	SS7IPGW, IPLIM, IPLIMI, IPGWI, IPSG	IPLHC, IPGHC, IPSG	IP signaling links
E5-STC	E5-ENET	EROUTE	ERTHC	EAGLE 5 Integrated Monitoring Support
E5-SM4G	E5-SM4G	VSCCP	SCCPHC	GTT-related features
E5-ENET-B/SLIC	E5-ENET-B SLIC	IPS	IPSHC	Telnet sessions for remote connections to the EAGLE and SEAS terminals for the SEAS over IP feature



High-Capacity Card	Card Name (as shown on the card label)	Application	Application GPL Running on the Card	Supported Entities
E5-ATM	E5-ATM	ATMANSI, ATMITU	ATMHC	ANSI and ITU ATM high-speed signaling links
E5-TSM	E5-TSM	GLS	GLSHC	Gateway Screening related features

Table 3-7 (Cont.) High-Capacity Card Applications

Caution:

Before any high-capacity card can be updated with the BLIXP GPL, all the traffic hosted by the high-capacity card must be stopped, and the highcapacity card must be taken out of service.

Canceling the REPT-STAT-SLK and RTRV-SLK Commands

Because the rept-stat-slk and rtrv-slk commands used in this procedure can output information for a long period of time, the rept-stat-slk and rtrv-slk commands can be canceled and the output to the terminal stopped. There are three ways that the rept-stat-slk and rtrv-slk commands can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rept-statslk or rtrv-slk commands command were entered.
- Enter the canc-cmd without the trm parameter at the terminal where the reptstat-slk or rtrv-slk commands were entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the reptstat-slk or rtrv-slk commands were entered, from another terminal other that the terminal where the rept-stat-slk or rtrv-slk commands were entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user or rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Display the BLIXP GPL on the fixed disk by entering this command.

rtrv-gpl:gpl=blixp

If E5-based control cards are installed in the EAGLE, this is an example of the possible output.

rlghncxa03w 10-12-01 11:34:04 GMT EAGLE5 43.0.0 GPL Auditing ON GPL CARD RELEASE APPROVED TRIAL REMOVE



```
TRIAL
BLIXP 1114 133-003-000 133-003-000 133-002-000
133-003-000
BLIXP 1116 133-003-000 133-003-000 133-002-000
133-003-000
BLIXP 1115 ------ ------
```

2. Display the status of the card that is being updated using the rept-stat-card command and specifying the location of the card.

For this example, enter this command.

rept-stat-card:loc=1303

For an **HC MIM** or **E5-E1T1** card, this is an example of the possible output.

rlghncxa0	3w 10-12-01	09:12:36	GMT EAGLE5	43.0.0	
CARD VE	RSION 7	YPE	GPL	PST	SST
AST					
1303 13	3-003-000 I	JIME1	SS7HC	IS-NR	Active
ALARM S	TATUS	= No Ala	arms.		
IMTPCI	GPL version	1 = 133 - 00	2-000		
BLCPLD	GPL version	1 = 133 - 00	2-000		
BLDIAG6	GPL version	1 = 133 - 00	2-000		
BLBIOS	GPL version	1 = 133 - 00	2-000		
BLVXW6	GPL version	1 = 133 - 00	2-000		
BLROM1	GPL version	1 = 133 - 00	2-000		
PLDPMC1	GPL version	1 = 133 - 00	2-000		
IMT BUS	А	= Conn			
IMT BUS	В	= Conn			
SIGNALI	NG LINK STAT	US			
SLK	PST		LS	CLLI	
A	IS-NR		e11303a		
В	IS-NR		e11303b		
A1	IS-NR		e11303a		
В3	IS-NR		e11303b		
Command C	ompleted.				

For an **E5-E1T1** card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 133-003-000 LIME1 SS7EPM IS-NR Active -----ALARM STATUS = No Alarms. IMTPCI GPL version = 133-002-000 BLCPLD GPL version = 133-002-000 BLDIAG6 GPL version = 133-002-000 BLBEPM GPL version = 133-002-000 PLDPMC1 GPL version = 133-002-000 BLVXW6 GPL version = 133-002-000

IMT BUS A =	Conn	
IMT BUS B =	Conn	
CURRENT TEMPERATURE	= 32C (90F)	[ALARM TEMP: 60C (140F)]
PEAK TEMPERATURE:	= 39C (103F)	[06-05-02 13:40]
SIGNALING LINK STATUS		
SLK PST	LS	CLLI
A IS-NR	e11303a	
B IS-NR	e11303b	
Al IS-NR	e11303a	
B3 IS-NR	e11303b	
Command Completed.		

For an **E5-ENET** card, this is an example of the possible output.

rlghncx	ka03w 10	-12-01 09	:12:36	GMT EAGLE5	43.0.0		
CARD	VERSION	TYPI	Ξ	GPL	PST	SST	
AST							
1303	133-003	-000 DCM		IPLHC	IS-NR	Act	ive
ALARM	1 STATUS	=	No Ala	arms.			
IMTPO	CI GPL ·	version =	133-00	02-000			
BLCPI	LD GPL ·	version =	133-00	02-000			
BLDIA	AG6 GPL [.]	version =	133-00	02-000			
BLBEI	PM GPL '	version =	133-00	02-000			
PLDPN	AC1 GPL ·	version =	133-00	02-000			
BLVXV	V6 GPL ·	version =	133-00	02-000			
IMT E	BUS A	=	Conn				
IMT E	BUS B	=	Conn				
CURRE	ENT TEMPI	ERATURE	= 320	C (90F)	[ALARM '	TEMP: 60C	(140F)]
PEAK	TEMPERA	TURE:	= 390	C (103F)	[06-05-	02 13:40]	
SIGNA	ALING LI	NK STATUS					
5	SLK P	ST		LS	CLL	I	
I	A I	S-NR		e11303a			
E	3 I.	S-NR		e11303b			
I	A1 I:	S-NR		e11303a			
E	33 I.	S-NR		e11303b			
Command	d Comple	ted.					

For an **E5-STC** card, this is an example of the possible output.

rlghncy	ca03w	10-12-01	L 09:12:36	GMT EAGLE5	43.0.0	
CARD	VERSI	ON	TYPE	GPL	PST	SST
AST						
1303	133-0	03-000	STC	ERTHC	IS-NR	Active
ALARN	I STAI	US	= No Alar	rms.		
IMTPO	CI GF	L versio	n = 133 - 00	02-000		
BLVXV	16 GF	L versio	n = 133 - 00	02-000		
BLDIA	AG6 GF	L versio	n = 133 - 00	02-000		
BLBEI	PM GF	L versio	n = 133 - 00	02-000		
BLCPI	LD GF	L versio	n = 133 - 00	02-000		
IMT E	BUS A		= Conn			

IMT BUS B = Conn CURRENT TEMPERATURE = 61C (142F) PEAK TEMPERATURE: = 61C (142F) [00-02-14 10:33] EROUTE % OCCUP = 0% NTP broadcast = VALID STC IP PORT A: OOS-MT Unavail ____ ALARM STATUS = ** 0084 IP Connection Unavailable ERROR STATUS = DHCP Lease. Physical Link. STC IP PORT B: OOS-MT Unavail ____ ALARM STATUS = ** 0084 IP Connection Unavailable ERROR STATUS = DHCP Lease. Physical Link.

Command Completed.

For an E5-SM4G card, this is an example of the possible output.

rlghncxa	a03w 10-12-01	09:12:36	GMT EAGLE5	43.0.0	
CARD V	VERSION	TYPE	GPL	PST	SST
AST					
1303 1	133-003-000	DSM	SCCPHC	IS-NR	Active
ALARM	STATUS	= No Ala	rms.		
IMTPC	I GPL versio	n = 133 - 00	02-000		
BLVXW6	6 GPL versio	n = 133 - 00	02-000		
BLDIA	G6 GPL versio	n = 133 - 00	02-000		
BLBSM	G GPL versio	n = 133 - 00	02-000		
BLCPLI	D GPL versio	n = 133 - 00	02-000		
IMT BU	JS A	= Conn			
IMT BU	JS B	= Conn			
CURREI	NT TEMPERATUR	E = 310	C (88F)		
PEAK 7	remperature:	= 320	C (90F)	[07-05-12	15:55]
SCCP 8	& OCCUP	= 1%			

Command Completed.

For an **E5-ENET-B**/SLIC card, this is an example of the possible output.

rlghncxa03	3w 10-12-01	09:12:36	GMT EAGLE5	43.0.0	
CARD VE	RSION	TYPE	GPL	PST	SST
AST					
1303 133	3-003-000	IPSM	IPSHC	IS-NR	Active
ALARM ST	TATUS	= No Ala	arms.		
IMTPCI	GPL versio	n = 133 - 00)2-000		
BLVXW6	GPL versio	n = 133 - 00)2-000		
BLDIAG6	GPL versio	n = 133 - 00	02-000		
BLBEPM	GPL versio	n = 133 - 00	02-000		
BLCPLD	GPL versio	n = 133 - 00	02-000		
IMT BUS	A	= Conn			
IMT BUS	В	= Conn			



```
CURRENT TEMPERATURE = 32C ( 90F)

PEAK TEMPERATURE: = 39C (103F) [06-05-02 13:40]

Command Completed.
```

For an **E5-ATM** card, this is an example of the possible output.

rlghncxa03w 10-12	-01 09:12:3	6 GMT EAGLE	5 43.0.0	
CARD VERSION	TYPE	GPL	PST	SST
AST				
1303 133-003-00	0 LIMATM	ATMHC	IS-NR	Active
ALARM STATUS	= No Al	arms.		
IMTPCI GPL ver	sion = 133-	-002-000		
BLVXW6 GPL ver	sion = 133-	-002-000		
BLDIAG6 GPL ver	sion = 133-	-002-000		
BLBEPM GPL ver	sion = 133-	-002-000		
BLCPLD GPL ver	sion = 133-	-002-000		
IMT BUS A	= Conr	1		
IMT BUS B	= Conr	1		
CURRENT TEMPERA	TURE = 3	88C (101F)		
PEAK TEMPERATUR	E: = 3	88C (101F)	[07-11-23	06:10]
SIGNALING LINK	STATUS			
SLK PST		LS	CLLI	
A IS-N	R	ls1		

Command Completed.

For an **E5-TSM** card, this is an example of the possible output.

rlghncz	xa03w 10-12-01	09:12:	36 GMT EAGLE5	43.0.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1303	133-003-000	TSM	GLSHC	IS-NR	Active
ALARI	M STATUS	= No A	larms.		
IMTPO	CI GPL versio	on = 133	-002-000		
BLVXV	W6 GPL versio	on = 133	-002-000		
BLDIA	AG6 GPL versio	on = 133	-002-000		
BLBEI	PM GPL versio	on = 133	-002-000		
BLCPI	LD GPL versio	on = 133	-002-000		
IMT H	BUS A	= Con	n		
IMT H	BUS B	= Con	n		
CURRI	ENT TEMPERATUR	ε =	38C (101F)		
PEAK	TEMPERATURE:	=	38C (101F)	[07-11-23	06:10]

Command Completed.

Continue the procedure by performing one of these actions:



- If the card is running one of these application GPLs: SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC, IPSG (shown in the GPL column in the rept-statcard output in 2), continue the procedure with 5.
- If the card is running the ERTHC application GPL, (shown in the GPL column in the rept-stat-card output in 2), continue the procedure with 12.
- If the card is running the IPSHC application GPL, (shown in the GPL column in the rept-stat-card output in 2), continue the procedure with 9.
- If the card is running the SCCPHC application GPL, (shown in the GPL column in the rept-stat-card output in 2), continue the procedure with 4.
- If the card is running the GLSHC application GPL (shown in the GPL column in the rept-stat-card output in 2), continue the procedure with 3.
- 3. Display the GLS cards by entering this command.

rept-stat-card:appl=gls

The output from this command will display the TSMs that are running the GLS GPL and the E5-TSMs that are running the GLSHC GPL.

This is an example of the possible output.

rlghncz	ka03w 10-12-02	1 09:12:36	GMT EAGLE5	43.0.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1207	133-003-000	TSM	GLSHC	IS-NR	Active
1211	133-003-000	TSM	GLSHC	IS-NR	Active
1303	133-003-000	TSM	GLSHC	IS-NR	Active

Command Completed.

Continue the procedure with 12.

4. Display the service modules by entering the rept-stat-sccp command.

The output from this command will display the DSMs that are running the VSCCP GPL and the E5-SM4G cards that are running the SCCPHC GPL.

This is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0

CARD CPU U	VERSION SAGE	PST	SST	AST	MSU	USAGE				
1303	133-003-000	IS-NR	Active							
47%	81%									



```
2103 133-003-000 IS-NR
                            Active
                                      ____
34%
         50%
2111 133-003-000 IS-NR
                            Active
                                      ____
21%
         29%
2115 133-003-000 IS-NR
                            Active
                                      ____
35%
         52%
2117 133-003-000 IS-NR
                            Active
                                      ____
40%
         71%
_____
                                _____
-----
SCCP Service Average MSU Capacity = 36% Average CPU Capacity
= 56%
Command Completed.
```

Note:

The rept-stat-sccp command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rept-stat-sccp command, refer to the rept-stat-sccp command description in *Commands User's Guide*.

Continue the procedure with 12.

5. Display the signaling links associated with the card shown in 2.

Enter the rtrv-slk command with the card location specified in 2. For this example, enter this command.

rtrv-slk:loc=1303

This is an example of the possible output for an HC MIM or E5-E1T1 card.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0

					L2T			PCR	PCR
E1	E1								
LOC	LINK	LSN	SLC	TYPE	SET	BPS	ECM	Nl	N2
LOC	PORT	TS							
1303	А	e11303a	0	LIME1	1	64000	PCR	76	3800
1303	2	12							
1303	В	e11303b	0	LIME1	1	56000	BASIC		
1303	1	2							
1303	A1	e11303a	1	LIME1	1	56000	BASIC		
1303	1	3							
1303	В3	e11303b	1	LIME1	1	56000	BASIC		
1303	1	7							

This is an example of the possible output for an E5-ENET card.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0



LOC	LINK	LSN	SLC	TYPE	IPLIML2
1303	A	e11303a	0	IPLIM	M2PA
1303	В	e11303b	0	IPLIM	M2PA
1303	A1	e11303a	1	IPLIM	M2PA
1303	в3	e11303b	1	IPLIM	M2PA

This is an example of the possible output for an E5-ATM card.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0

					LP		ATM	
LOC	LINK	LSN	SLC	TYPE	SET	BPS	TSEL	VCI
VPI	LL							
1303	А	ls2	2	LIMATM	1	1544000	LINE	5
0	0							
1303	В	ls1	3	LIMATM	1	1544000	LINE	5
0	0							

6. Deactivate the **SS7** signaling links on the card using the dact-slk command. For this example, enter these commands.

```
dact-slk:loc=1303:link=a
dact-slk:loc=1303:link=b
dact-slk:loc=1303:link=a1
dact-slk:loc=1303:link=b3
```

Caution:

These command examples place the signaling links on card 1303 out of service. This will interrupt service on the signaling links on card 1303 and allow the BLIXP GPL to be loaded on to card 1303.

Caution:

If the EAGLE contains only signaling links assigned to the card that is specified in this step, deactivating all of the signaling links that are assigned to the card will take all of these signaling links out of service and will isolate the EAGLE from the network.

When each of these commands have successfully completed, this message should appear.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 Deactivate SLK message sent to card

Continue the procedure with 12.



7. Display the data link, and its status, associated with the card shown in 2. Enter the rept-stat-dlk command with the card location specified in 2.

For this example, enter this command.

rept-stat-dlk:loc=1303 This is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 DLK PST SST AST 1303 IS-NR Active ----Alarm Status = No Alarms. Command Completed.

8. Deactivate the TCP/IP data link on the card that you wish to load the GPL onto using the canc-dlk command. For this example, enter this command.

canc-dlk:loc=1303

Caution:

This command example places the TCP/IP data link on card 1303 out of service. This will interrupt service on the TCP//IP data link on card 1303 and allow the flash GPL to be loaded onto card 1303.

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Deactivate Link message sent to card.
Command Completed.
```

Continue the procedure with 12.

9. Display the terminal configuration in the database with the rtrv-trm command.

The Telnet terminals associated with the card shown in 9 must be taken out of service. The Telnet terminals are shown in the output with the entry TELNET in the TYPE field. This is an example of the possible output. In this example, the Telnet terminals that must be taken out of service are terminals 17 to 24.

rlghr	ncxa03w 1	10-12-01	09:1	L2:36	GMT	EAC	GLE5	43	.0.0
TRM	TYPE	COMM		FC	TMC)UT	MXIN	V	DURAL
1	VT320	9600-7-	E-1	SW	30		5		99:59:59
2	KSR	9600-7-	E-1	HW	30		5		INDEF
3	PRINTER	4800-7-	E-1	HW	30		0		00:00:00
4	VT320	2400-7-	E-1	BOTH	30		5		00:30:00
5	VT320	9600-7-	-0-1	NONE	30		5		00:00:30
6	VT320	9600-7-	-0-1	NONE	30		5		00:00:30
7	PRINTER	9600-7-	-E-2	HW	30		5		00:30:00
8	KSR	19200-7-	-E-2	BOTH	30		5		00:30:00
9	VT320	9600-7-	-0-1	NONE	30		5		00:00:30

10	VT320	9600-7-E-1	HW	30	5	00:30:00
11	VT320	4800-7-E-1	HW	30	5	00:30:00
12	PRINTER	9600-7-E-1	HW	30	4	00:30:00
13	VT320	9600-7-0-1	NONE	30	5	00:30:00
14	VT320	9600-7-E-2	SW	30	8	00:30:00
15	VT320	9600-7-E-2	HW	30	5	00:30:00
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00
TRM	TYPE	LOC		TMOUT	MXIN	/ DURAL
17	TELNET	1303		60	5	00:30:00
18	TELNET	1303		60	5	00:30:00
19	TELNET	1303		60	5	00:30:00
20	TELNET	1303		60	5	00:30:00
21	TELNET	1303		60	5	00:30:00
22	TELNET	1303		60	5	00:30:00
23	TELNET	1303		60	5	00:30:00
24	TELNET	1303		60	5	00:30:00
25	TELNET	1203		60	5	00:30:00
26	TELNET	1203		60	5	00:30:00
27	TELNET	1203		60	5	00:30:00
28	TELNET	1203		60	5	00:30:00
39	TELNET	1203		60	5	00:30:00
30	TELNET	1203		60	5	00:30:00
31	TELNET	1203		60	5	00:30:00
32	TELNET	1203		60	5	00:30:00
33	TELNET	1208		60	5	00:30:00
34	TELNET	1208		60	5	00:30:00
35	TELNET	1208		60	5	00:30:00
36	TELNET	1208		60	5	00:30:00
37	TELNET	1208		60	5	00:30:00
38	TELNET	1208		60	5	00:30:00
39	TELNET	1208		60	5	00:30:00
40	TELNET	1208		60	5	00:30:00

Note:

The rtrv-trm command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrvtrm command, see the rtrv-trm command description in *Commands User's Guide*.

10. Display the status of the terminals with the rept-stat-trm command. This is an example of the possible output.

rlghno	cxa03w	10-12-01	09:12:36	GMT	EAGLE5	43.0.0
TRM	PST	, L	SST		AST	
1	IS-NR	1	Active			
2	IS-NR	1	Active			
3	IS-NR	1	Active			
4	IS-NR	1	Active			
5	IS-NR	1	Active			
6	IS-NR	1	Active			



7	IS-NR	Active	
8	IS-NR	Active	
9	IS-NR	Active	
10	IS-NR	Active	
11	IS-NR	Active	
12	IS-NR	Active	
13	IS-NR	Active	
14	IS-NR	Active	
15	IS-NR	Active	
16	IS-NR	Active	
17	IS-NR	Active	
18	IS-NR	Active	
19	IS-NR	Active	
20	IS-NR	Active	
21	IS-NR	Active	
22	IS-NR	Active	
23	IS-NR	Active	
24	IS-NR	Active	
25	IS-NR	Active	
26	IS-NR	Active	
27	IS-NR	Active	
28	IS-NR	Active	
29	IS-NR	Active	
30	IS-NR	Active	
31	IS-NR	Active	
32	IS-NR	Active	
33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

Command Completed.

11. Place the required terminals out of service using the rmv-trm or the inh-trm command. The function of the rmv-trm and the inh-trm commands are the same. For this example, enter these commands.

```
rmv-trm:trm=17
rmv-trm:trm=18
rmv-trm:trm=19
rmv-trm:trm=20
rmv-trm:trm=21
rmv-trm:trm=22
rmv-trm:trm=23
rmv-trm:trm=24
```



Note:

If the terminal that is being taken out of service is the last in service SEAS terminal, theforce=yes parameter must be specified with thermv-trm command for that terminal.

Caution:

Placing the Telnet terminals out of service will disable any Telnet sessions running on these terminals.

If the status of any of the terminals shown in the PST field in 10 is OOS-MT-DSBLD (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

This message should appear when each of these commands have successfully completed.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 Inhibit message sent to terminal

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.
```

12. Place the card shown in 2 out of service using the rmv-card or inh-card command. The function of the rmv-card and the inh-card commands are the same.

For this example, enter this command.

rmv-card:loc=1303

When this command has successfully completed, this message should appear.

```
rlghncxa03w 10-12-01 11:11:28 GMT EAGLE5 43.0.0
Card has been inhibited.
```

The force=yes parameter must be specified in this step if any of these conditions exist.

- The HC MIM, E5-E1T1, E5-ATM, or E5-ENET card contains the last signaling link in a linkset.
- The E5-TSM is the last GLS card that is in service.
- The service module is the last service module that is in service.
- **13.** Load the approved version of the BLIXP GPL onto the card that was inhibited in 12 using the flash-card command with the code=appr and the card location parameters.



Caution:

The flash-card command cannot be entered if the IMT Rate Change sequence or the Extended Bit Error Rate Test (BERT) is being performed.

For this example, enter this command.

```
flash-card:code=appr:loc=1303
```

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Flash Card: Downloading BLIXP on card 1303.
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Flash Card: Card 1303 download BLIXP complete.
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Flash Card: Activating BLIXP on card 1113.
;
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Flash Card: Card 1303 activation BLIXP complete.
;
rrlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.
```

14. Put the card that was inhibited in 12 back into service using the rst-card or alw-card command. The function of the rst-card and the alw-card commands are the same.

The rst-card or alw-card command also loads the approved version of the BLIXP GPL onto the card.

For this example, enter this command.

rst-card:code=appr:loc=1303

When this command has successfully completed, this message should appear.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Card has been allowed.
```

15. Verify that the BLIXP GPL from 14 has loaded and that the card has returned to its in-service normal (**IS-NR**) state using the rept-stat-card command.

For this example, enter this command.

```
rept-stat-card:loc=1303
```



For an HC MIM or E5-E1T1 card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 133-003-000 LIME1 SS7HC IS-NR Active ____ ALARM STATUS = No Alarms. BLIXP GPL version = 133-003-000 IMT BUS A = Conn IMT BUS B = Conn SIGNALING LINK STATUS SLK PST LS CLLI OOS-MT-DSBLD e11303a А _____ OOS-MT-DSBLD e11303b В _____ OOS-MT-DSBLDe11303aOOS-MT-DSBLDe11303b OOS-MT-DSBLD A1 _____ В3 _____ Command Completed.

For an E5-E1T1 card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 133-003-000 IPLIM SS7EPM IS-NR Active ____ ALARM STATUS = No Alarms. BLIXP GPL version = 133-003-000 IMT BUS A = Conn IMT BUS B = Conn

 CURRENT TEMPERATURE
 = 32C (90F)
 [ALARM TEMP: 60C (140F)]

 PEAK TEMPERATURE:
 = 39C (103F)
 [06-05-02 13:40]

 SIGNALING LINK STATUS SLK PST LS CLLI А IS-NR e11303a _____ IS-NR e11303b В _____ IS-NR e11303a _____ A1 e11303b В3 IS-NR _____ Command Completed.

For an E5-ENET card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 133-003-000 DCM IPLHC IS-NR Active ____ ALARM STATUS = No Alarms. BLIXP GPL version = 133-003-000 IMT BUS A = Conn IMT BUS B = Conn



CURRENT I	EMPERATURE	=	32C (90F)	[ALARM TEMP: 60C	(140F)
PEAK TEMP	PERATURE:	=	39C (103F)	[06-05-02 13:40]	
SIGNALING	G LINK STATUS				
SLK	PST		LS	CLLI	
A	IS-NR		e11303a		
В	IS-NR		e11303b		
Al	IS-NR		e11303a		
В3	IS-NR		e11303b		
Command Com	pleted.				

For an E5-STC card, this is an example of the possible output.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD VERSION TYPE GPL PST
                                                SST
AST
1303 133-003-000 STC ERTHC IS-NR
                                                Active
____
 ALARM STATUS
               = No Alarms.
 BLIXP GPL version = 133-003-000
 IMT BUS A
             = Conn
 IMT BUS B
                 = Conn
 CURRENT TEMPERATURE = 61C (142F)
 PEAK TEMPERATURE: = 61C (142F) [06-05-02 13:40]
 NTP broadcast = VALID
 STC IP PORT A:
                                    OOS-MT
                                                Unavail
_ _ _ _ _
     ALARM STATUS = ** 0084 IP Connection Unavailable
     ERROR STATUS = DHCP Lease. Physical Link.
 STC IP PORT B:
                                    OOS-MT
                                                Unavail
_ _ _ _ _
     ALARM STATUS = ** 0084 IP Connection Unavailable
     ERROR STATUS = DHCP Lease. Physical Link.
Command Completed.
```

For an E5-SM4G card, this is an example of the possible output.

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
CARD VERSION
                TYPE GPL
                                 PST
                                             SST
AST
1303 133-003-000 DSM
                        SCCPHC
                                 IS-NR
                                             Active
____
 ALARM STATUS = No Alarms.
 BLIXP GPL version = 133-003-000
 IMT BUS A
                 = Conn
 IMT BUS B
                 = Conn
 CURRENT TEMPERATURE = 31C(88F)
 PEAK TEMPERATURE: = 32C (90F)
                                  [07-05-12 15:55]
                = 1%
 SCCP % OCCUP
```

Command Completed.



For an E5-ENET-B or SLIC card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 133-003-000 IPSM IPSHC IS-NR Active ____ ALARM STATUS = No Alarms. BLIXP GPL version = 133-003-000 IMT BUS A = Conn IMT BUS B = Conn CURRENT TEMPERATURE = 32C (90F) PEAK TEMPERATURE: = 39C(103F)[06-05-02 13:40] Command Completed.

For an E5-ATM card, this is an example of the possible output.

rlghncz	xa03w 10-12-0	L 09:12:36	GMT EAGLE5	43.0.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1303	133-003-000	LIMATM	ATMHC	IS-NR	Active
ALARI	M STATUS	= No Alar	rms.		
BLIX	P GPL versio	n = 133 - 00	03-000		
IMT H	BUS A	= Conn			
IMT H	BUS B	= Conn			
CURRI	ENT TEMPERATU	RE = 380	C (101F)		
PEAK	TEMPERATURE:	= 380	C (101F)	[07-11-23	06:10]
SIGNA	ALING LINK STA	ATUS			
c.	SLK PST		LS	CLLI	
1	A IS-NR		ls1		

Command Completed.

For an E5-TSM card, this is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 CARD VERSION TYPE GPL PST SST AST 1303 133-003-000 TSM GLSHC IS-NR Active ____ = No Alarms. ALARM STATUS BLIXP GPL version = 133-003-000 IMT BUS A = Conn IMT BUS B = Conn CURRENT TEMPERATURE = 38C (101F) PEAK TEMPERATURE: = 38C (101F) [07-11-23 06:10]



Command Completed.

Note:

If the version number of the BLIXP GPL that is shown in this step is not the version specified in 1, contact the Customer Care Center. Refer to the My Oracle Support (MOS) section for the contact information.

Continue the procedure by performing one of these actions.

- If card is running one of these application GPLs: SS7HC, SS7EPM, IPLHC, IPGHC, ATMHC, IPSG (shown in the GPL column in the rept-stat-card output in 15), continue the procedure with 16.
- If card is running one of these application GPLs: ERTHC, GLSHC, or SCCPHC, (shown in the GPL column in the rept-stat-card output in 15), continue the procedure with 22.
- If the card is running the IPSHC application GPL, (shown in the GPL column in the rept-stat-card output in 15), continue the procedure with 20.
- **16.** Place the signaling links that were deactivated in 6 back into service using the act-slk command.

For this example, enter these commands.

act-slk:loc=1303:link=a
act-slk:loc=1303:link=b
act-slk:loc=1303:link=a1
act-slk:loc=1303:link=b3

When each of these commands have successfully completed, this message should appear.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 Activate SLK message sent to card

17. Verify that the signaling links activated in 16 are back in service using the reptstat-slk command with the card location and signaling link.

For this example, enter these commands.

rept-stat-slk:loc=1303:link=a

This is an example of the possible output.

rlghncxa	03w 10-12-	01 09:12:36	GMT EAGLE5	43.0.0	
SLK	LSN	CLLI	PST	SST	AST
1303,A	e11303a		- IS-NR	Avail	
ALARM S	STATUS	= No Alar	cms.		
UNAVAI	L REASON	=			



rept-stat-slk:loc=1303:link=b

This is an example of the possible output.

rlghncxa	03w 10-12-	01 09:12:36	GMT EAGLE5	43.0.0	
SLK	LSN	CLLI	PST	SST	AST
1303,B	e11303b		- IS-NR	Avail	
ALARM	STATUS	= No Alar	ms.		
UNAVAI	L REASON	=			

rept-stat-slk:loc=1303:link=a1

This is an example of the possible output.

rlghncxa	03w 10-12-	01 09:12:36	GMT EAGLE5	43.0.0	
SLK	LSN	CLLI	PST	SST	AST
1303,A1	e11303a		- IS-NR	Avail	
ALARM	STATUS	= No Alar	cms.		
UNAVAI	L REASON	=			

rept-stat-slk:loc=1303:link=b3

This is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0					
SLK	LSN	CLLI	PST	SST	AST
1303,B3	e11303b		IS-NR	Avail	
ALARM	STATUS	= No Al	arms.		
UNAVAI	L REASON	=			
Command	Completed.				

Continue the procedure with 22.

18. Place the TCP/IP data link that was deactivated in 8 back into using the act-dlk command. For this example, enter this command.

act-dlk:loc=1303

When this command has successfully completed, this message should appear.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 Activate Link message sent to card.

19. Verify that the TCP/IP data link activated in 18 is back in service with the reptstat-dlk command. For this example, enter this command.

rept-stat-dlk:loc=1303
This is an example of the possible output.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 DLK PST SST AST



```
1303
             IS-NR
                          Active
                                    ____
 Alarm Status = No Alarms.
Command Completed.
```

Continue the procedure with 22.

20. Put the required terminals back into service with the rst-trm or alw-trm command. The function of the rst-trm and the alw-trm commands are the save. For this example, enter these commands.

```
rst-trm:trm=17
rst-trm:trm=18
rst-trm:trm=19
rst-trm:trm=20
rst-trm:trm=21
rst-trm:trm=22
rst-trm:trm=23
rst-trm:trm=24
```

This message should appear when each of these commands have successfully completed.

rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0 Allow message sent to terminal

```
rlghncxa03w 10-12-01 09:12:36 GMT EAGLE5 43.0.0
Command Completed.
```

21. Verify that the terminals are in service with the rept-stat-trm command. This is an example of the possible output.

rlghncxa03w		10-12-01	09:12:36	GMT	EAGLE5	43.0.0
TRM	PST	:	SST		AST	
1	IS-NR	i	Active			
2	IS-NR	i	Active			
3	IS-NR	i	Active			
4	IS-NR	i	Active			
5	IS-NR	i	Active			
б	IS-NR	i	Active			
7	IS-NR	i	Active			
8	IS-NR	i	Active			
9	IS-NR	i	Active			
10	IS-NR	i	Active			
11	IS-NR	i	Active			
12	IS-NR	i	Active			
13	IS-NR	i	Active			
14	IS-NR	i	Active			
15	IS-NR	i	Active			
16	IS-NR	i	Active			
17	IS-NR	i	Active			



18	IS-NR	Active	
19	IS-NR	Active	
20	IS-NR	Active	
21	IS-NR	Active	
22	IS-NR	Active	
23	IS-NR	Active	
24	IS-NR	Active	
25	IS-NR	Active	
26	IS-NR	Active	
27	IS-NR	Active	
28	IS-NR	Active	
29	IS-NR	Active	
30	IS-NR	Active	
31	IS-NR	Active	
32	IS-NR	Active	
33	IS-NR	Active	
34	IS-NR	Active	
35	IS-NR	Active	
36	IS-NR	Active	
37	IS-NR	Active	
38	IS-NR	Active	
39	IS-NR	Active	
40	IS-NR	Active	

Command Completed.

22. This procedure is finished.





Figure 3-9 Updating a High-Capacity Card to Run the BLIXP GPL



Sheet 1 of 4







Sheet 2 of 4







Sheet 3 of 4









Sheet 4 of 4

Conversion of SM8G-B Cards

There are two types of cards that can operate in 32-bit or 64-bit mode: SM8G-B and SLIC cards. SM8G-B cards are equipped with 8G bytes of RAM. The operator must convert the cards to operate on 64-bit mode in order to enable access to memory ranges beyond the 4G byte, the memory range limit for 32-bit mode cards.

Because the GPL image contains either 32-bit or 64-bit mode code, the card must be flashed with the correct version before being able to run on the desired mode. Follow the steps in SM8G-B 32-bit to 64-bit Conversion or SM8G-B 64-bit to 32-bit Conversion in order to convert an SM8G-B card to operate from one mode to the other.

SM8G-B Bootloader Swap

An SM8G-B card running on a BLMCAP version from a release prior to EAGLE 46.3 may contain the 32-bit mode only bootloader. This bootloader must be updated before converting to 64-bit mode. The following procedure is used to update the 32-bit mode bootloader to 64-bit. Skip this procedure if the card is already running the BLDC64 GPL.

1. Inhibit the target card with the inh-card:loc=<card_loc>:force=yes.

The card will boot and return to state OOS-MT-DSBLD within 60 seconds.

2. Flash the card with the initflash:loc=<card_loc>:code=appr:gpl=blmcap command.

After the flashing operations complete, the card will boot and return to state OOS-MT-DSBLD.

- 3. Activate the new BLMCAP GPL with the act-flash:loc=<card_loc> command.
- 4. Replace the card's bootloader with the initflash:loc=xxxx:mode=rplcebl:bits=64 command.

If the card was already running with the desired bootloader, the command does nothing.

SM8G-B 32-bit to 64-bit Conversion

The following procedure is used to convert the 32-bit mode to 64-bit. The target card must already be running on the BLMCAP GPL and had its bootloader swapped, as completed in SM8G-B Bootloader Swap. Skip this procedure if the card is already running the BLDC64 GPL.

1. Inhibit the target card with the inh-card:loc=<card_loc>:force=yes.

The card will boot and return to state OOS-MT-DSBLD within 60 seconds.

2. Flash the card with the initflash:loc=<card_loc>:code=appr:mode=cnvrtbit:bits=64 command.



After the flashing operations complete, the card will boot and return to state OOS-MT-DSBLD.

3. Activate the new BLDC64 GPL with the act-flash:loc=<card_loc> command.

The card will now run on 64-bit mode and will accept 64-bit mode applications from the OAM.

SM8G-B 64-bit to 32-bit Conversion

The following procedure is used to convert the 64-bit mode to 32-bit. The target card must already be running on the BLDC64 GPL and contain the correct bootloader, as completed in SM8G-B Bootloader Swap. Skip this procedure if the card is already running the BLMCAP GPL.

1. Inhibit the target card with the inh-card:loc=<card_loc>:force=yes.

The card will boot and return to state OOS-MT-DSBLD within 60 seconds.

```
2. Flash the card with the init-
flash:loc=<card_loc>:code=appr:mode=cnvrtbit:bits=32 command.
```

After the flashing operations complete, the card will boot and return to state OOS-MT-DSBLD.

 Activate the new BLMCAP GPL with the act-flash:loc=<card_loc> command.

The card will now run on 32-bit mode and will accept 32-bit mode applications from the OAM.

Conversion of SLIC Cards

SLIC cards are equipped with 16G bytes of RAM. They can run on either the 32-bit mode BLSLC32 flash GPL or on the 64-bit mode BLSLC64 flash GPL.

Follow the steps in SLIC 32-bit to 64-bit Conversion or SLIC 64-bit to 32-bit Conversion in order to convert a SLIC card to operate from one mode to the other.

SLIC 32-bit to 64-bit Conversion

The following procedure is used to convert the 32-bit mode to 64-bit. The target card should already be running on the BLSLC32 GPL. Skip this procedure if the card is already running the BLSLC64 GPL.

1. Inhibit the target card with the inh-card:loc=<card_loc>:force=yes.

The card will boot and return to state OOS-MT-DSBLD within 60 seconds.

2. Flash the card with the initflash:loc=<card_loc>:code=appr:gpl=BLSLC64 command.

After the flashing operations complete, the card will boot and return to state OOS-MT-DSBLD.

3. Activate the new BLSLC64 GPL with the act-flash:loc=<card_loc> command.



The card will now run on 64-bit mode and will accept 64-bit mode applications from the OAM.

4. Update/verify the SLIC bootloader using the initflash:loc=<card_loc>:mode=rplcebl:bits=64 command.

If the card was already running with the desired bootloader, the command has no effect; otherwise, the bootloader will be updated.

SLIC 64-bit to 32-bit Conversion

The following procedure is used to convert the 64-bit mode to 32-bit. The target card should already be running on the BLSLC64 GPL. Skip this procedure if the card is already running the BLSLC32 GPL.

1. Inhibit the target card with the inh-card:loc=<card_loc>:force=yes.

The card will boot and return to state OOS-MT-DSBLD within 60 seconds.

2. Flash the card with the initflash:loc=<card_loc>:code=appr:gpl=BLSLC32 command.

After the flashing operations complete, the card will boot and return to state OOS-MT-DSBLD.

3. Activate the new BLSLC32 GPL with the act-flash:loc=<card_loc> command.

The card will now run on 32-bit mode and will accept 32-bit mode applications from the OAM.

4. A card previously running on the BLSLC64 should already be using the correct bootloader. If in doubt, update/verfiy the SLIC bootloader with the init-flash:loc=<card_loc>:mode=rplcebl:bits=64 command.

If the card was already running with the desired bootloader, the command has no effect; otherwise, the bootloader will be updated.



4 System Administration Procedures

Chapter 4, System Administration Procedures, describes the procedures used to administer the items shown in the Introduction.

Introduction

This chapter contains system administration procedures. The items discussed in this section are:

- The date and time
- User IDs and passwords
- Terminal configuration
- Shelves
- Cards
- Security Log
- Unauthorized Use Warning Message
- **UIM** Thresholds
- MCPMs, IP links, and FTP servers for the Measurements Platform
- **IPSMs** for the **IP** User Interface (Telnet) feature
- Configuring the Network Security Options
- Configuring the Restore Device State Option
- Configuring the Frame Power Alarm Threshold

The procedures shown in this chapter use a variety of commands. If more information on these commands is needed, go to *Commands User's Guide* to find the required information.

Setting the Clock and Date on the EAGLE

This procedure is used to set the EAGLE's clock and date.

1. To set the date, use the set-date command.

The date must be entered in the form **YYMMDD** (**YY** for the year, **MM** for the month, and **DD** for the day of the month). For example, to set the date to March 7, 2003, enter this command.

set-date:date=030307


When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:33:19 GMT EAGLE5 36.0.0
Date set complete.

2. To set the clock, use the set-time command.

The time must be entered in the form **HHMM** (**HH** for the hour, and **MM** for the minutes). The hour is based on a 24-hour clock. The time zone can also be specified. If the time zone is not specified, then the **EAGLE** uses the time zone that was entered with the previous set-time command. The values for the time zone parameter are shown in Table 4-1. The entry in the Abbreviation column of Table 4-1 is the value to be specified for the time zone parameter.

Table 4-1	Time Zones

Time Zone	Abbreviation	Offset from GMT (hours)
Greenwich Mean Time	GMT	0
US Eastern Daylight Time	EDT	- 4
US Eastern Standard Time	EST	- 5
US Pacific Daylight Time	PDT	- 7
US Pacific Standard Time	PST	- 8
US Mountain Daylight Time	MDT	- 6
US Mountain Standard Time	MST	- 7
US Central Daylight Time	CDT	- 5
US Central Standard Time	CST	- 6
US Hawaiian Daylight Time	HDT	- 9
US Hawaiian Standard Time	HST	- 10
Atlantic Daylight Time	ADT	- 3
Atlantic Standard Time	AST	- 4
Western European Time	WET	0
Universal Time Coordinated	UTC	0
British Summer Time	BST	+ 1
Western European Summer Time	WEST	+ 1
Central European Time	CET	+ 1
Central European Summer Time	CEST	+ 2
Eastern European Time	EET	+ 2
Eastern European Summer Time	EEST	+ 3
French Summer Time	FST	+ 2
French Winter Time	FWT	+ 1
Brazil Standard Time	BRA	- 3
Middle European Time	MET	+ 1
Middle European Summer Time	MEST	+ 2
Moscow Time	MSK	+ 3



Time Zone	Abbreviation	Offset from GMT (hours)
Moscow Summer Time	MSD	+ 4
Australian Eastern Standard Time	AEST	+ 10
Australian Eastern Daylight Time	AEDT	+ 11
Australian Western Standard Time	AWST	+ 8
Australian Western Daylight Time	AWDT	+ 9
Australian Central Standard Time	ACST	+ 9.5
Australian Central Daylight Time	ACDT	+ 10.5
New Zealand Standard Time	NZST	+ 12
New Zealand Daylight Time	NZDT	+ 13
South African Standard Time	SAST	+ 2
China Coast Time	ССТ	+ 8
Republic of Korea	ROK	+ 9
India Standard Time	IST	+ 5.5
India Daylight Time	IDT	+ 6.5
Alaska Standard Time	AKST	-9
Alaska Daylight Time	AKDT	-8
Newfoundland Standard Time	NST	-3.5
Newfoundland Daylight Time	NDT	-2.5

|--|

For example, to set the time to 14:20 (2:20 PM) in the Greenwich Mean time zone, enter this command.

set-time:time = 1420:tz=gmt

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 14:20:00 GMT EAGLE5 36.0.0
Time set complete.
```

3. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.









Changing the Security Defaults

This procedure is used to change the user **ID** and password requirements for the **EAGLE** using the chg-secu-dflt command. The chg-secu-dflt command uses these parameters.

:page – The amount of time, in days, that the specified user's password can be used before the user must change their password. The value of this parameter applies to all **EAGLE** user **IDs** unless a different value is specified for a specific user **ID** with the ent-user **Or** chg-user **COMMAND**.

:uout – The number of consecutive days that a user **ID** can remain active in the **EAGLE** and not be used. When the user **ID** has not been used for the number of days specified by the uout parameter, that user **ID** is no longer valid and the **EAGLE** rejects any attempt to log into the **EAGLE** with that user **ID**. The value of this parameter applies to all user **IDs** in the **EAGLE** unless a different value is specified for a specific user **ID** with the ent-user or chg-user command.

: multlog - are the user IDs allowed to log on to more than one terminal at any given time.

:minlen - the minimum length of the password

:alpha - the minimum number of alpha characters (a - z)

: num – the minimum number of numeric characters (0 - 9)

:punc – the minimum number of punctuation characters (any printable character that is not an alphabetic character, a numeric character, the space bar)

:minintrvl - the minimum number of days before a password can be changed again.

:pchreuse – the number of characters that cannot be reused from the current password when setting the new password. For example, if the pchreuse parameter value is 5, no more than five characters of the current password can be reused in the new password.

:pgrace – the number of days after password expiration during which the user can login without changing their password.

: pnotify - the number of days before password expiration that the user is notified about the expiration.

:preuse – the number of previous passwords that cannot be used. If the preuse parameter value is 6, the previous six passwords cannot be used.

The chg-secu-dflt command also contains the wrnln,wrntx, and clrwrntx parameters. These parameters are used to configure the unauthorized use warning message that is displayed when a user logs into the **EAGLE**. To configure the unauthorized use warning message, go to the Configuring the Unauthorized Use Warning Message procedure.

Even though the minlen parameter specifies the minimum length of a password, the password must also contain the minimum number characters defined by the alpha, num, and punc parameters.



The examples in this procedure are used to change the security defaults to these values.

page = 100 days

uout = 50 days

multlog = yes, to allow the user **IDs** in the **EAGLE** to log onto more than one terminal at any given time.

minlen = 12 characters

alpha = 2 characters

num = 2 characters

punc = 2 characters

minintrvl = 5 days

pnotify = 14 days

pgrace = 2 days

preuse = 6 passwords

pchreuse = 5 characters

Note:

When the EAGLE is delivered to the user, the database will contain these security default values.

```
:page = 90 days
:uout = 90 days
```

:multlog = no

:minlen = 8 characters

:alpha = 1 character

:num = 1 character

:punc = 1 character

:minintrvl = 1 day

:pnotify = 7 days

:pgrace = 3 days

:preuse = 5 passwords

:pchreuse = 4 characters

The <code>rtrv-secu-dflt</code> command uses the <code>msg</code> parameter to specify whether the unauthorized use warning message text is displayed in the command output. The <code>msg</code> parameter has two values.



yes – the unauthorized use warning message text is displayed.

no - the unauthorized use warning message text is not displayed.

The default value for this parameter is no.

Regardless of the value specified for the msg parameter, the user **ID** and password security defaults are displayed in the rtrv-secu-dflt command output.

 Display the current security defaults by entering the rtrv-secu-dflt command. This is an example of the possible output.

```
rlghncxa03w 10-04-01 16:02:05 GMT EAGLE5 42.0.0
SECURITY DEFAULTS
_____
PAGE
            60
UOUT
            90
MULTLOG
          NO
            8
MINLEN
            1
ALPHA
NUM
            1
PUNC
            1
            1
MININTRVL
PNOTIFY
             7
             3
PGRACE
PREUSE
             5
             4
PCHREUSE
```

2. Change the current security defaults by entering the ${\tt chg-secu-dflt}$ command.

For this example, enter this command.

```
chg-secu-
dflt:page=100:uout=50:multlog=yes:minlen=12:alpha=2 :num=2:pu
nc=2:minintrvl=5:pchreuse=5:pgrace=2:pnotify=14:preuse=6
```

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 11:43:04 GMT EAGLE5 36.0.0 CHG-SECU-DFLT: MASP A - COMPLTD

3. Verify the changes with the rtrv-secu-dflt command.

This is an example of the possible output.

rlghncxa03w 10-04-01 16:02:05 GMT EAGLE5 42.0.0 SECURITY DEFAULTS ------PAGE 100 UOUT 50 MULTLOG YES MINLEN 12 ALPHA 2



NUM	2
PUNC	2
MININTRVL	5
PNOTIFY	14
PGRACE	2
PREUSE	б
PCHREUSE	5

4. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-2 Changing the Security Defaults



Configuring the Unauthorized Use Warning Message

This procedure is used to configure the unauthorized use warning message that is displayed after a user successfully logs into the **EAGLE**.

These parameters are used in this procedure.

:wrnln – the line number of the text of the unauthorized use warning message. The unauthorized use warning message can contain from 1 to 20 lines of text.

:wrntx – the text of the line number of the unauthorized use warning message. The each line of text can contain up to 70 alphanumeric characters and must be enclosed in quotes ("). A blank line is specified with this text string, " ", the blank space character enclosed in double quotes.

:clrwrntx - This parameter specifies whether or not the text of the warning message is removed and will not be displayed. This parameter has three values.

- no the text of a specific line in the warning message is not removed.
- yes the text of a specific line in the warning message is removed and will not be displayed.
- all the text in all the lines of the warning message are removed and no warning message will be displayed.

The clrwrntx=yes parameter can be specified only with the wrnln parameter.

The chg-secu-dflt command contains other parameters that are not used in this procedure. These parameters are used to change the user ID and password security defaults on the EAGLE. To change the user ID and password security defaults, perform the Changing the Security Defaults procedure.

Note:

When the **EAGLE** is delivered to the user, the database will contain this login warning message.

NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.

The example in this procedure is used to change the unauthorized use warning message from the system default message to this message.



*

The rtrv-secu-dflt command uses the msg parameter to specify whether the unauthorized use warning message text is displayed in the command output. The msg parameter has two values.

yes - the unauthorized use warning message text is displayed.

no - the unauthorized use warning message text is not displayed.

The default value for this parameter is no.

*

Regardless of the value specified for the msg parameter, the user **ID** and password security defaults are displayed in the rtrv-secu-dflt command output.

1. Display the current text of the unauthorized use warning message by entering the rtrv-secu-dflt command with the msg=yes parameter.

This is an example of the possible output.

rlghncxa03w 10-04-01 16:02:05 GMT EAGLE5 42.0.0 SECURITY DEFAULTS _____ PAGE 60 90 UOUT MULTLOG NO MINLEN 8 1 ALPHA NUM 1 1 PUNC MININTRVL 1 7 PNOTIFY 3 PGRACE 5 PREUSE 4 PCHREUSE rlghncxa03w 10-04-01 16:02:05 GMT EAGLE5 42.0.0 WARNING MESSAGE _____ 1: "NOTICE: This is a private computer system." 2: "Unauthorized access or use may lead to prosecution." 3:" " 4:"" 5:"" 6:"" 7:"" 8:"" 9:"" 10:"" 11:"" 12:"" 13:"" 14:"" 15:""



16:"" 17:"" 18:"" 19:"" 20:""

2. Change the unauthorized use warning message by entering the chg-secu-dflt command with the wrnln, wrntx, and clrwrntx parameters.

For this example, to configure a new warning message, enter these commands.

```
chq-secu-
* * * * * * * * * * * * * * * "
chg-secu-dflt:wrnln=2:wrntx="* NOTICE: This is a private
computer system. *"
chg-secu-dflt:wrnln=3:wrntx="* UNAUTHORIZED ACCESS OR USE
WILL BE PROSECUTED *"
chg-secu-
dflt:wrnln=4:wrntx="*.....
. . . . . . . * "
chq-secu-
dflt:wrnln=5:wrntx=".....
*"
chg-secu-dflt:wrnln=6:wrntx="* 11/17/97 Notice!!! System will
be upgraded between*"
chg-secu-dflt:wrnln=7:wrntx="* the hours of 2am-3am on
02/07/00 *"
chg-secu-dflt:wrnln=6:wrntx="* 03/17/08 Notice!!! System will
be upgraded between*"
chg-secu-dflt:wrnln=7:wrntx="* the hours of 2am-3am on
04/01/08 *"
chg-secu-
dflt:wrnln=8:wrntx="*.....
. . . . . . . . . . . . . . * "
chq-secu-
dflt:wrnln=9:wrntx="*.....
....*"
chg-secu-
chg-secu-dflt:wrnln=11:wrntx=" "
chg-secu-dflt:wrnln=12:clrwrntx=yes
chq-secu-dflt:wrnln=13:clrwrntx=yes
chg-secu-dflt:wrnln=14:clrwrntx=yes
chg-secu-dflt:wrnln=15:clrwrntx=yes
```

```
chg-secu-dflt:wrnln=16:clrwrntx=yes
```

chg-secu-dflt:wrnln=17:clrwrntx=yes

chg-secu-dflt:wrnln=18:clrwrntx=yes

chg-secu-dflt:wrnln=19:clrwrntx=yes

chg-secu-dflt:wrnln=20:clrwrntx=yes

If you wish to remove the current warning message, enter this command.

chg-secu-dflt:clrwrntx=all

If you wish to configure a new warning message after removing the current warning message, repeat this step with the wrnln, wrntx, and clrwrntx=yes parameters as needed.

When each of these commands has successfully completed, this message should appear.

rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0 CHG-SECU-DFLT: MASP A - COMPLTD

3. Verify the changes with the rtrv-secu-dflt:msg=yes command.

This is an example of the possible output.

rlghncxa03w 3 SECURITY DEFA	10-04-01 AULTS	16:02:05	GMT	EAGLE5	42.0.0	
PAGE	60					
UOUT	90					
MULTLOG	NO					
MINLEN	8					
ALPHA	1					
NUM	1					
PUNC	1					
MININTRVL	1					
PNOTIFY	7					
PGRACE	3					
PREUSE	5					
PCHREUSE	4					
rlghncxa03w 3 WARNING MESSA	10-04-01 AGE	16:02:05	GMT	EAGLE5	42.0.0	
1:"*******	* * * * * * * *	* * * * * * * * * *	****	* * * * * * * *	* * * * * * * * * * * * *	< * * "
2:"* NOTICE	This is	s a privat	te co	mputer :	svstem.	* "
3:"* UNAUTH	ORIZED A	CESS OR I	USE W	ILL BE 1	PROSECUTED	* "
4:"*						* "
5:"*						* "
6:"* 03/17/08	8 Notice	!!! System	n wil	l be upo	graded betwee	en *"
7:"*		the hours	s of	2am-3am	on 04/01/08	* "
8:"*						* "
9:"*						* "
10:"******	* * * * * * * *	* * * * * * * * *	* * * * *	******	* * * * * * * * * * * * *	:**"



- 11:" " 12:"" 13:"" 14:"" 15:"" 16:"" 17:"" 18:"" 19:"" 20:""
- 4. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-3 Configuring the Unauthorized Use Warning Message



Changing the Security Log Characteristics

This procedure is used to change the characteristics of the **EAGLE**'s security log using the chg-attr-seculog command. The chg-attr-seculog command uses these parameters.

:upldalm – whether the security log alarms are on. The security log alarms are:

- upload required the percentage of the maximum capacity of the security log exceeds the value of the upslg parameter. The security log entries need to be copied to the file transfer area of the fixed disk.
- log overflowed the security log has become 100% full and log entries are being lost. The security log entries must be copied to the file transfer area of the fixed disk.
- standby log contains >0 un-uploaded entries the security log on the standby fixed disk contains entries that have not been copied to the file transfer area of the fixed disk. Usually, the security log on the standby fixed disk contains no entries, but for some reason, for example, a MASP switchover resulting in the active MASP security log becoming the standby MASP security log, the security log on the standby fixed disk contains uncopied security log entries.

The upldalm=yes parameter turns the security log alarms on. The upldalm=no turns the security log alarms off. If a security log alarm has been generated, the upldalm=no parameter lowers the alarm.

:upslg - the threshold at which the **EAGLE** generates the upload required security log alarm, if the upldalm=yes parameter has been specified. The threshold is the percentage of the maximum capacity of the security log.

When the **EAGLE** is delivered to the user, the security log characteristics will be set to these values:

```
:upldalm = yes
:upslg = 90
```

1. Display the current characteristics of the security log by entering the rtrv-attrseculog command.

This is an example of the possible output.

rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0 Security log attributes ------UPLDALM no UPSLG 80

 Change the characteristics of the security log by entering the chg-attrseculog command.

For this example, enter this command.

```
chg-attr-seculog:upldalm=yes:upslg=90
```

ORACLE

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0 CHG-ATTR-SECULOG: MASP A - COMPLTD

3. Verify the changes with the rtrv-attr-seculog command.

This is an example of the possible output.

rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0 Security log attributes ------UPLDALM yes UPSLG 90

4. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```



Figure 4-4 Changing the Security Log Characteristics





Copying the Security Log to the File Transfer Area

This procedure is used to copy the **EAGLE**'s security log to the file transfer area of the fixed disk using the copy-seculog command. The copy-seculog command uses these parameters.

:dfile - the name of the file created in the file transfer area containing the security log entries copied with the copy-seculog command.

The filename can contain from 1 to 32 characters. If the filename contains special characters such as blank spaces, colons, dashes, periods, ampersands (&), etc. (for example, eagle123.doc), the filename must be enclosed in double quotes. For example, :dfile="eagle123.doc".

If a filename is not specified, the EAGLE specifies its own filename with this format, yymmddx.log, where yymmdd are the current year/month/day that the security log file was created, and x is either a if the security log on the active fixed disk is copied (slog=act) or s if the security log on the standby fixed disk is copied (slog=stb).

: slog - the security log that is copied to the file transfer area, the security log on the active fixed disk (slog=act) or the standby fixed disk (slog=stb). The default value for this parameter is act.

: dloc – the file transfer area that is receiving the copy of the security log, the file transfer area on the active fixed disk (dloc=act) or the file transfer area on the standby fixed disk dloc=stb). The default value for this parameter is act.

If a filename is not specified, the **EAGLE** specifies its own filename with this format, yymmddx.log, where yymmdd are the current year/month/day that the security log file was created, and x is either a for the copy of the security log on the active fixed disk or s for the copy of the security log on the standby fixed disk.

The copy-seculog command can be specified with no parameters. If the copyseculog command is specified with no parameters, the security log on the active fixed disk is copied to the file transfer area on the active fixed disk and is given a default name. The default name is in this format, yymmdda.log, where yymmdd are the current year/month/day that the security log file was created, and a for the copy of the security log on the active fixed disk.

1. Verify the card that is card location **1113** by entering this command.

rept-stat-card:loc=1113

This is an example of the possible output.

```
rlghncxa03w 09-03-28 21:15:37 GMT EAGLE5 40.1.0
CARD
      VERSION
                 TYPE
                            GPL
                                       PST
                                                     SST
AST
      132-013-000 E5MCAP
1113
                            OAMHC
                                       IS-NR
                                                     Active
____
                   = No Alarms.
 ALARM STATUS
 BLMCAP GPL version = 132-005-000
 IMT BUS A
                   = Conn
 IMT BUS B
                   = Conn
 CURRENT TEMPERATURE = 30C (86F)
```



PEAK TEMPERATURE: = 33C (92F) [02-01-05 07:18]

Command Completed.

2. Verify the card that is in card location 1115 by entering this command.

rept-stat-card:loc=1115

This is an example of the possible output.

```
rlghncxa03w 09-03-28 21:15:37 GMT EAGLE5 40.1.0
CARD
      VERSION
                  TYPE
                                                     SST
                            GPL
                                      PST
AST
1113
      132-013-000 E5MCAP
                                                     Active
                            OAMHC
                                      IS-NR
 ALARM STATUS
                   = No Alarms.
 BLMCAP GPL version = 132-005-000
                   = Conn
 IMT BUS A
 IMT BUS B
                   = Conn
 CURRENT TEMPERATURE = 30C ( 86F )
 PEAK TEMPERATURE: = 33C (92F)
                                       [02-01-05 07:18]
```

Command Completed.

Ensure that both card locations contain the same type of card (E5-OAM).

3. Display the current characteristics of the security log by entering the rept-statseculog command.

This is an example of the possible output.

rlghncxa03w 09-03-04 16:02:05 GMT EAGLE5 40.1.0 -- SINCE LAST UPLOAD -- OLDEST NEWEST LAST LOC ROLE ENTRIES %FULL OFLO FAIL RECORD RECORD UPLOAD 1114 Active 8312 84 No No 09-01-25 09-03-04 09-02-15 08:25:21 09:02:44 02:47:17 1116 Standby 693 7 No No 09-01-25 09-03-04 09-02-15 08:25:21 09:02:44 02:47:17

4. Copy the security log to the file transfer area by entering the copy-seculog command.

For this example, copy the security log on the active fixed disk to the file transfer area on the fixed disk. Enter this command.

copy-seculog:dfile=security1.log:slog=act:dloc=act

When this command has successfully completed, this message should appear.

rlghncxa03w 09-03-04 16:02:37 GMT EAGLE5 40.1.0 Security log on TDM 1114 copied to file security1.log on TDM 1114

5. Verify the changes with the rept-stat-seculog command.



This is an example of the possible output.

rlghr	ncxa03w	09-03-04	16:04	:43 GI	MT EAG	GLE5 40.1	.0	
		SINCH	E LAST	UPLO	AD	OLDEST	NEWEST	LAST
LOC	ROLE	ENTRIES	%FULL	OFLO	FAIL	RECORD	RECORD	UPLOAD
1114	Active	1	1	No	No	09-03-04	09-03-04	09-03-04
						09:02:44	09:02:44	16:02:37
1116	Standby	0	0	No	No	09-01-25	09-03-04	09-02-15
						08:25:21	09:02:44	02:47:17





Figure 4-5 Copying the Security Log to the File Transfer Area



Sheet 1 of 2





Sheet 2 of 2

Adding a User to the System

This procedure is used to add a user to the **EAGLE** using the ent-user command. This procedure can only be performed if you have been assigned the command class "Security Administration." If the user **ID** does not exist in the database, the user's characteristics cannot be changed.

Note:

This procedure can be performed on all terminals (1 - 40) if the Eagle OA&M IP Security Enhancements feature is on. If this feature is on, the entry YES is shown for terminals 17 through 40 in the SECURE column in the rtrv-trm output. The output of the rtrv-ctrl-feat command also shows if this feature is on or off. If this feature is off, this procedure can be performed only on terminals 1 through 16. If you wish to use the Eagle OA&M IP Security Enhancements feature, and the feature is not on, performActivating the EAGLE OA&M IP Security Enhancement Controlled Feature to enable and turn on this feature.

The ent-user command uses these parameters.

: uid – The user $\ensuremath{\text{ID}}$ to be added to the database

:all – The user has access to all commands in all non-configurable command classes (dbg, link, sys, sa, pu, db).

:dbg - The user has access to all commands in the command class "Debug."

: \mathtt{link} – The user has access to all commands in the command class "Link Maintenance."

 $: {\rm sys}$ – The user has access to all commands in the command class "System Maintenance."

: sa – The user has access to all commands in the command class "Security Administration."

:pu – The user has access to all commands in the command class "Program Update."

 $: \ensuremath{\mathrm{db}}\xspace -$ The user has access to all commands in the command class "Database Administration."

: cc1 - :cc8 - Eight configurable command classes. These parameters specified whether or not the user has access to the commands in the specified configurable command class. The value of these parameters consist of the configurable command class name (1 alphabetic character followed by 2 alphanumeric characters), and either yes or no. The command class name and the yes or no values are separated by a dash. For example, to assign a user the permission to use the commands in configurable command class db1, the cc1=db1-yes parameter would be specified.

To specify any configurable command classes, the **Command Class** Management feature must be enabled and turned on. Enter the rtrv-ctrl-feat command to



verify whether or not the **Command Class** Management feature is enabled. If the **Command Class** Management feature is not enabled or turned on, perform Activating Controlled Features to enable and turn on the **Command Class** Management feature. Up to 32 configurable command classes can be assigned to users. When the **Command Class** Management feature is enabled and turned on, the configurable command class names are given the names u01 - u32. These command class names, the descriptions of these command classes, and the commands assigned to these command classes can be changed using Configuring Command Classes.

The ent-user command allows up to eight configurable command classes to be assigned to the user. Perform Changing User Information to assign the other 24 configurable command classes to the user, if desired.

:page – The amount of time, in days, that the specified user's password can be used before the user must change their password.

If the page parameter is not specified with the ent-user command, the **EAGLE** uses the value configured for the page parameter specified by the chg-secu-dflt command to determine the age of the user's password.

:uout – The number of consecutive days that a user **ID** can remain active in the **EAGLE** and not be used. When the user **ID** has not been used for the number of days specified by the uout parameter, that user **ID** is no longer valid and the **EAGLE** rejects any attempt to log into the **EAGLE** with that user **ID**.

If the uout parameter is not specified with the ent-user command, the EAGLE uses the value configured for the uout parameter specified by the chg-secu-dflt command to determine the number of consecutive days that a user ID can remain active on the EAGLE and not be used

:revoke – Is the specified user ID in service? Any login attempts using a revoked user ID are rejected by the EAGLE. The revoke=yes parameter cannot be specified for a user ID assigned to the security administration command class.

The words seas or none cannot be used for user **IDs** to prevent any conflict with the use of these words in the **UID** field of the security log. The word none in the UID field of the security log refers to any command that was logged that had no user ID associated with it. The word seas refers to any command logged in the security log that entered the EAGLE on either of the SEAS terminals.

This example shows an rtrv-secu-user command output when the **Command Class** Management feature is enabled and turned on. If the **Command Class** Management feature is not enabled and turned on, the 32 configurable command classes, shown in the following example as fields U01 - U32, are not shown in the rtrv-secu-user command output.

An asterisk (*) displayed after the value in the PAGE or UOUT fields indicates that the system-wide default page or uout parameter values, as configured on the chg-secu-dflt command, is in effect for the user **ID**.

rlghncxa03w 09-03-01 08:33:48 GMT EAGLE5 40.1.0

USER ID	AGE	PAGE	UOUT	REV	LINK	SA	SYS	PU	DB	DBG
frodo	750	0	0	NO	YES	YES	YES	YES	YES	YES

U01 U02 U03 U04 U05 U06 U07 U08 U09 U10 U11 U12 U13 U14 U15



U16															
NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30	U31
U32	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
YES															
USER ID manny YES			AGI 36	E PA0 60	GE UG 60	ו דעכ נ כ	REV I NO S	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG		
U16	U01	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14	U15
YES	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30	U31
YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
USER ID moe			AGI 100	E PAG 0 30	GE UG 60	H TUC	REV I YES N	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG YES		
1116	U01	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14	U15
NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
112.0	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30	U31
NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
חד קידו			лсı	אמ ק	ידי דו	ז ידידר	ז זים כ	TNV	СЛ	cvc	דום	סת	ססת		

USER ID AGE PAGE UOUT REV LINK SA SYS PU DB DBG 10 30 * 30 * NO YES YES YES YES YES YES jack U01 U02 U03 U04 U05 U06 U07 U08 U09 U10 U11 U12 U13 U14 U15 U16 YES

U17 U18 U19 U20 U21 U22 U23 U24 U25 U26 U27 U28 U29 U30 U31 U32 YES YES YES YES YES NO NO NO NO YES YES YES YES YES

Canceling the RTRV-SECU-USER Command

Because the rtrv-secu-user command used in this procedure can output information for a long period of time, the rtrv-secu-user command can be canceled and the output to the terminal stopped. There are three ways that the rtrvsecu-user command can be canceled.

NO

- Press the F9 function key on the keyboard at the terminal where the rtrv-secuuser command was entered.
- Enter the canc-cmd without the trm parameter at the terminal where the rtrvsecu-user command was entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the rtrvsecu-user command was entered, from another terminal other that the terminal where the rtrv-secu-user command was entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user Of rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

 Verify whether or not the user ID you wish to add to the database is in the database by entering the rtrv-secu-user command and specifying the desired user ID with the uid parameter.

For this example, enter this command.

rtrv-secu-user:uid=frodo

If the user **ID** being added to the database is displayed in the rtrv-secu-user output, the user **ID** cannot be used in this procedure. The attributes of the user **ID** shown in the rtrv-secu-user output can be changed in the Changing User Information.

If the user **ID** being added to the database is not in the database, the error message E2199 is displayed.

E2199 Cmd Rej: The specified user identification is not defined

Continue the procedure by performing one of these steps.

- If the cc1 through cc8 parameters are not being specified in this procedure, continue the procedure with 4.
- If the ccl through cc8 parameters will be specified in this procedure, continue the procedure by performing one of these steps.
 - If configurable command classes are shown in the rtrv-secu-user output, continue the procedure with 3.
 - If configurable command classes are not shown in the rtrv-secu-user output, continue the procedure with 2.
- 2. Verify that the **Command Class** Management feature is enabled and turned on, by entering the rtrv-ctrl-feat command with the partnum=893005801 parameter.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:
```



Feature NamePartnumStatusQuantityCommand Class Management893005801off----

Note:

The rtrv-ctrl-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-ctrl-feat command, see the rtrv-ctrl-feat command description in *Commands User's Guide*.

If the **Command Class** Management feature is enabled and turned on (status = on), continue the procedure with 3.

If the **Command Class** Management feature is not enabled or turned on, perform Activating Controlled Featuresto enable and turn on the **Command Class** Management feature.

Caution:

If the **Command Class** Management feature is temporarily enabled, the configurable command classes can be assigned and used only for the amount of time shown in the Trial Period Left column in the rtrv-ctrl-feat output.

 Display the descriptions of the configurable command classes in the database by entering the rtrv-cmd command.

This is an example of the possible output.

```
rlghncxa03w 09-05-01 21:15:37 GMT EAGLE5 41.0.0
CMD
                    CLASS
                    link, ull
alw-slk
ent-user
                    sa
unhb-slk
                    link
rtrv-attr-seculog
                    sa, u31
inh-slk
                    link, abc
rtrv-meas-sched
                    link, abc, def
act-lbp
                    link
act-dlk
                    link
                    link
act-slk
                    sa, abc, def, ghi
rtrv-seculog
act-lpo
                    link
blk-slk
                    link, abc, u23, u31
dact-lbp
                    link
canc-dlk
                    link
inh-card
                    SVS
canc-lpo
                    link, u01, u02, u03, u04, u05, u06, u07, u08,
u09, u10,
                    ull, ul2, ul3
canc-slk
                    link
ublk-slk
                    link, u01, u02, u03, u04, u05, u06, u07, u08,
```



```
      u09, u10,
      u11, u12, u13, u14, u15, u16, u17, u18, u19,

      u20, u21,
      u22, u23, u24, u25, u26, u27, u28, u29, u30,

      u31, u32
      sys, krb

      rept-meas
      link

      .
      .

      chg-meas
      link

      tst-dlk
      link, krb

      tst-slk
      link
```

If the desired configurable command class descriptions are not in the database, perform Configuring Command Classes to configure the desired command classes.

 After you enter the ent-user command, you will be prompted for a password for the user that is being added.

The password must meet the requirements defined by the chg-secu-dflt command. Once you enter the ent-user command, you will not be able to enter any other commands until the user **ID** and password combination has been accepted by the **EAGLE**. The password requirements must be verified before the ent-user command is executed. Display the password requirements by entering the rtrv-secu-dflt command. This is an example of the possible output.

The rtrv-secu-dflt command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-secu-dflt command, refer to the rtrv-secu-dflt command description in *Commands User's Guide*.

The password can contain from one to twelve characters. For this example, the password must contain at lease eight characters, no more than twelve, with at least one alpha character (a-z), at least one numeric character (0-9), and at least one punctuation character (any printable character that is not an alphabetic character, a numeric character, the space bar). The password requirements are shown in these fields in the rtrv-secu-dflt command output.

- MINLEN the minimum length of the password
- ALPHA the minimum number of alpha characters
- NUM the minimum number of numeric characters
- PUNC the minimum number of punctuation characters



The password is not case sensitive. For security reasons, the password is never displayed on the terminal.

5. Add the new user **ID** to the database using the ent-user command.

The user **ID** must contain 1 alpha character and up to 15 alphanumeric characters. The first character of a user **ID** must be an alpha character. Even though a period is not an alphanumeric character, one of the 15 alphanumeric characters can be a period.

The other parameters assign command class permissions to the user **ID**. If yes is entered for any of these parameters, the user will have access to that class of commands. If no is entered, the user will not have access to that class of commands. These parameters are optional and if not specified, the user is not assigned to that command class. The user is assigned to the Basic command class whether any of these other parameters are specified. Refer to *Commands User's Guide* for a list of commands permitted with each command class. For this example, the user **ID**frodo is being added with access to these command classes: link maintenance, system maintenance, database administration, and debug.

The frodo user **ID** will use the values for the page and uout parameters configured with the chg-secu-dflt command. For this example, enter this command.

ent-user:uid=frodo:link=yes:sys=yes:db=yes:dbg=yes:cc1=db1yes

This message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
ENT-USER: MASP A - COMPLTD
```

6. You are prompted for a password for the user that is being added.

Enter the new password. Make sure that the password meets the password requirements displayed in the output of the rtrv-secu-dflt command, executed in 4.

- 7. At the prompt verify password, re-enter the password that was entered in 6 again.
- 8. When the command executed message appears, the execution of the command has been completed, and the user **ID** and password has been added to the database.
- Verify the changes using the rtrv-secu-user command with the user ID specified in 5.

For this example, enter this command.

rtrv-secu-user:uid=frodo

This is an example of the possible output.

rlghncxa03w 09-03-01 08:33:48 GMT EAGLE5 40.1.0

USER ID	AGE	PAG	ΞE	UOU	JT	REV	LINK	SA	SYS	PU	DB	DBG
frodo	0	60	*	90	*	NO	YES	NO	YES	NO	YES	YES



	DB1	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14
U15 U16														
	YES	NO												
NO NO														
	1 0	1 0	1 0		01				0 -					
	017	UT8	019	020	021	022	023	024	025	026	027	028	029	030
U31 U32														
	NO													
NO NO														

10. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-6 Adding a User to the System

Sheet 1 of 2



Notes:

1. The *revoke*=yes parameter cannot be specified with is yes.

2. To specify the *cc1* through *cc8* parameters, the Co Management feature must be enabled and turned on.

3. The user can have a maximum of 32 configurable of assigned. The *ent-user* command can assign up to 8 classes. Perform the "Changing User Information" pr other 24 configurable command classes to the user.

4. The *all* parameter specifies whether or not all nonclasses (*link*, *sa*, *sys*, *pu*, *db*, *dbg*) can be used by the

5. If the *all* parameter and individual non-configurable specified with the *ent-user* command, the value of the non-configurable command classes overrides the value of the

6. The password must adhere to all password provision the *rtrv-secu-dflt* output. These rules are displayed on *ent-user* command is entered.



Sheet 2 of 2

Removing a User from the System

This procedure is used to remove a user from the **EAGLE** using the dlt-user command. This procedure can only be performed if you have been assigned the command class "Security Administration." If the user **ID** does not exist in the database, the user's characteristics cannot be changed.

1. Display the user **IDs** in the database using the rtrv-secu-user command.

This is an example of the possible output.

rlghncxa03w 09-03-01 08:33:48 GMT EAGLE5 40.1.0

USER ID frodo			AGI 0	E PAC 60	GE U(* 9)	UT 1 1 TUC	REV NO	LINK YES	SA NO	SYS YES	PU NO	DB YES	DBG YES	
U15 U16	DB1	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14
NO NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1121 1120	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30
NO NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
USER ID manny			AGI 36	E PAG 60	GE U(6)	נ דעכ נ 0	REV NO	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG YES	
1115 1116	U01	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14
YES YES	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30
NO YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO
USER ID fred			AGI 75(E PAG D 0	GE U(O	UT I	REV NO	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG YES	
1115 1116	DB1	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14
YES NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30
NO NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO

USER ID		AGE PAG	GE UOUT	REV LINK	SA SYS	PU DB	DBG
travist		101 60	* 90 *	NO YES	NO YES	NO NO	YES
TI1E TI16	DB1 U02	U03 U04	U05 U06	5 UO7 UO8	U09 U10	U11 U12	U13 U14
012 010	YES YES	YES YES	YES YES	S YES YES	YES YES	YES YES	YES YES
YES YES							
1121 1120	U17 U18	U19 U20	U21 U22	2 U23 U24	U25 U26	U27 U28	U29 U30
031 032	YES YES	YES YES	YES YES	S NO NO	NO NO	YES YES	YES YES
YES NO							

2. Remove the user ID from the database by using the dlt-user command.

The dlt-user command has only one parameter, uid, which is the user **ID** that you wish to remove from the database. For this example, enter this command.

dlt-user:uid=travist

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
DLT-USER: MASP A - COMPLTD
```

3. Verify the changes using the rtrv-secu-user command and specifying the user ID used in step 2 with the uid parameter.

For this example, enter this command.

rtrv-secu-user:uid=travist

If the user ID was removed in step 2, error message E2199 is displayed.

E2199 Cmd Rej: The specified user identification is not defined

4. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.


Figure 4-7 Removing a User from the System



Changing User Information

This procedure is used to change the characteristics of a user on the **EAGLE** using the chg-user command. This procedure can only be performed if you have been assigned the command class "Security Administration." If the user **ID** does not exist in the database, the user's characteristics cannot be changed.

Note:

The pid parameter can be specified for this procedure on all terminals (1 - 40) if the Eagle **OA**&M **IP** Security Enhancements feature is on. If this feature is on, the entry YES is shown for terminals 17 through 40 in the SECURE column in the rtrv-trm output. The output of the rtrv-ctrl-feat command also shows if this feature is on or off. If this feature is off, the pid parameter can be specified for this procedure only on terminals 1 through 16. If you wish to use the Eagle **OA**&M **IP** Security Enhancements feature, and the feature is not on, performActivating the EAGLE OA&M **IP** Security Enhancement Controlled Feature to enable and activate this feature.

The chg-user command uses these parameters.

: uid - The ID of a user in the database

:nuid – New user ID – The new ID of the user specified by the uid parameter.

:pid – Password ID (only required if changing the password of a user) – The password of the user specified by the uid parameter.

:all – The user has access to all commands in all command classes.

:dbg - The user has access to all commands in the command class "Debug."

: link – The user has access to all commands in the command class "Link Maintenance."

 $:_{\rm SYS}$ – The user has access to all commands in the command class "System Maintenance."

: sa – The user has access to all commands in the command class "Security Administration."

:pu - The user has access to all commands in the command class "Program Update."

 $: \ensuremath{\mathrm{db}}\xspace -$ The user has access to all commands in the command class "Database Administration."

: cc1 - : cc8 - Eight configurable command classes. These parameters specified whether or not the user has access to the commands in the specified configurable command class. The value of these parameters consist of the configurable command class name (1 alphabetic character followed by 2 alphanumeric characters), and either yes or no. The command class name and the yes or no values are separated by a dash. For example, to assign a user the permission to use the commands in configurable command class db1, the cc1=db1-yes parameter would be specified.



To specify any configurable command classes, the **Command Class** Management feature must be enabled and turned on. Enter the rtrv-ctrl-feat command to verify whether or not the **Command Class** Management feature is enabled. If the **Command Class** Management feature is not enabled or turned on, perform Activating Controlled Features to enable and turn on the **Command Class** Management feature. Up to 32 configurable command classes can be assigned to users. When the **Command Class** Management feature is enabled and turned on, the configurable command class names are given the names u01 - u32. These command class names, the descriptions of these command classes, and the commands assigned to these command classes can be changed using the Configuring Command Classes.

The chg-user command can assign a maximum of eight configurable command classes to the user each time the chg-user command is performed.

:page – The amount of time, in days, that the specified user's password can be used before the user must change their password.

If the page parameter is not specified with the ent-user command, the **EAGLE** uses the value configured for the page parameter specified by the chg-secu-dflt command to determine the age of the user's password.

:uout – The number of consecutive days that a user **ID** can remain active on the **EAGLE** and not be used. When the user **ID** has not been used for the number of days specified by the uout parameter, that user **ID** is no longer valid and the **EAGLE** rejects any attempt to log into the **EAGLE** with that user **ID**.

If the uout parameter is not specified with the ent-user command, the EAGLE uses the value configured for the uout parameter specified by the chg-secu-dflt command to determine the number of consecutive days that a user ID can remain active on the EAGLE and not be used

:revoke – Is the specified user ID in service? Any login attempts using a revoked user ID are rejected by the EAGLE. The revoke=yes parameter cannot be specified for a user ID assigned to the security administration command class.

:rstlsl - resets the last successful login date for a user **ID** to the current date. If the user **ID** is out of service because the user **ID** has been idle longer that the value of the uout parameter defined by either the ent-user or chg-secu-dflt commands, this parameter brings that user **ID** back into service.

This example shows an rtrv-secu-user command output when the **Command Class** Management feature is enabled and turned on. If the **Command Class** Management feature is not enabled and activated, the 32 configurable command classes, shown in the following example as fields U01 - U32, are not shown in the rtrv-secu-user command output.

An asterisk (*) displayed after the value in the PAGE or UOUT fields indicates that the system-wide default page or uout parameter values, as configured on the chg-secu-dflt command, is in effect for the user **ID**.

rlghncxa03w 09-03-01 08:33:48 GMT EAGLE5 40.1.0 USER ID AGE PAGE UOUT REV LINK SA SYS PU DB DBG frodo 750 0 0 NO YES YES YES YES YES

U01 U02 U03 U04 U05 U06 U07 U08 U09 U10 U11 U12 U13 U14 U15



U16															
NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
U32	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30	U31
YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
USER ID manny			AGI 36	E PA0 60	GE U(6)	UT I	REV I NO I	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG YES		
U16	U01	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14	U15
YES	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
1130	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30	U31
YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO
USER ID moe			AGI 100	E PA(0 30	GE U(6)	UT 1 0 '	REV 1 YES 1	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG YES		
1116	U01	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14	U15
NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
112.0	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30	U31
NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
USER ID jack			AGI 10	E PA(30	GE U(* 3)	1 TUC 1 * 0	REV I NO I	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG YES		
1116	U01	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14	U15
YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30	U31
U32 NO	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	YES	YES	YES	YES

 Display the user IDs in the database using the rtrv-secu-user command. This is an example of the possible output.

rlghncxa03w 09-03-01 08:33:48 GMT EAGLE5 40.1.0



USER ID frodo			AGI 0	E PA(60	GE U(* 9)	TUC 0 *	REV NO	LINK YES	SA NO	SYS YES	PU NO	DB YES	DBG YES	
1115 1116	DB1	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14
NO NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
	U17	U18	U19	U20	U21	U22	U23	U24	U25	U26	U27	U28	U29	U30
U31 U32	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
NO NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
USER ID manny			AGI 36	E PA(60	GE U(6)	TUC 0	REV NO	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG YES	
1115 1116	DB1	U02	U03	U04	U05	U06	U07	U08	U09	U10	U11	U12	U13	U14
VES VES	NO	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
	117	1118	111 9	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130
U31 U32	VEC	VEC	VEC	VEC	VEC	VEC	VEC	VEC	VEC	VEC	VEC	NO	NO	NO
NO YES	IFP	IF2	IES	IF2	IF2	IF2	IF2	IFP	IES	IF2	IFP	NO	NO	NO
USER ID fred			AGI 75(E PA() ()	GE U(O	TUC	REV NO	LINK YES	SA YES	SYS YES	PU YES	DB YES	DBG YES	
USER ID fred	DB1	U02	AGI 750 U03	E PA() 0 U04	GE U 0 U05	TUC U06	REV NO U07	LINK YES U08	SA YES U09	SYS YES U10	PU YES U11	DB YES U12	DBG YES U13	U14
USER ID fred U15 U16 YES NO	DB1 NO	UO2 YES	AGI 750 U03 YES	E PAG D O UO4 YES	GE UG 0 UO5 YES	DUT U06 YES	REV NO U07 YES	LINK YES U08 YES	SA YES U09 YES	SYS YES U10 YES	PU YES U11 YES	DB YES U12 YES	DBG YES U13 YES	U14 YES
USER ID fred U15 U16 YES NO	DB1 NO U17	UO2 YES U18	AGI 750 U03 YES U19	E PAG D 0 U04 YES U20	GE UG 0 UO5 YES U21	U06 YES U22	REV NO U07 YES U23	LINK YES UO8 YES U24	SA YES U09 YES U25	SYS YES U10 YES U26	PU YES U11 YES U27	DB YES U12 YES U28	DBG YES U13 YES U29	U14 YES U30
USER ID fred U15 U16 YES NO U31 U32	DB1 NO U17 YES	U02 YES U18 YES	AGI 750 U03 YES U19 YES	E PAG D 0 U04 YES U20 YES	GE UC 0 UO5 YES U21 YES	U06 YES U22 YES	REV NO U07 YES U23 YES	LINK YES U08 YES U24 YES	SA YES U09 YES U25 YES	SYS YES U10 YES U26 YES	PU YES U11 YES U27 YES	DB YES U12 YES U28 YES	DBG YES U13 YES U29 YES	U14 YES U30 NO
USER ID fred U15 U16 YES NO U31 U32 NO NO	DB1 NO U17 YES	U02 YES U18 YES	AGI 750 U03 YES U19 YES	E PAG D 0 U04 YES U20 YES	U05 VES U21 YES	U06 YES U22 YES	REV NO U07 YES U23 YES	LINK YES U08 YES U24 YES	SA YES U09 YES U25 YES	SYS YES U10 YES U26 YES	PU YES U11 YES U27 YES	DB YES U12 YES U28 YES	DBG YES U13 YES U29 YES	U14 YES U30 NO
USER ID fred U15 U16 YES NO U31 U32 NO NO USER ID travist	DB1 NO U17 YES	U02 YES U18 YES	AGI 750 U03 YES U19 YES AGI 10.	E PA() 0 U04 YES U20 YES E PA(1 60	GE U0 0 U05 YES U21 YES GE U0 * 90	U06 YES U22 YES DUT O *	REV NO U07 YES U23 YES REV	LINK YES U08 YES U24 YES LINK YES	SA YES U09 YES U25 YES SA NO	SYS YES U10 YES U26 YES SYS YES	PU YES U11 YES U27 YES PU NO	DB YES U12 YES U28 YES DB NO	DBG YES U13 YES U29 YES DBG YES	U14 YES U30 NO
USER ID fred U15 U16 YES NO U31 U32 NO NO USER ID travist	DB1 NO U17 YES DB1	U02 YES U18 YES	AGH 750 U03 YES U19 YES AGH 102	E PA() 0 U04 YES U20 YES E PA(1 60 U04	GE U0 0 U05 YES U21 YES GE U0 * 90 U05	U06 VES U22 VES DUT 0 *	REV NO U07 YES U23 YES REV NO	LINK YES U08 YES U24 YES LINK YES U08	SA YES U09 YES U25 YES SA NO U09	SYS YES U10 YES U26 YES SYS YES U10	PU YES U11 YES U27 YES PU NO U11	DB YES U12 YES U28 YES DB NO U12	DBG YES U13 YES U29 YES DBG YES U13	U14 YES U30 NO
USER ID fred U15 U16 YES NO U31 U32 NO NO USER ID travist U15 U16	DB1 NO U17 YES DB1 YES	U02 YES U18 YES U02 YES	AGH 750 U03 YES U19 YES AGH 10 U03 YES	E PA() 0 U04 YES U20 YES E PA(1 60 U04 YES	GE UU 0 UO5 YES U21 YES GE UU * 90 U05 YES	U06 YES U22 YES DUT 0 * U06 YES	REV NO U07 YES U23 YES REV NO U07 YES	LINK YES U08 YES U24 YES LINK YES U08 YES	SA YES U09 YES U25 YES SA NO U09 YES	SYS YES U10 YES U26 YES SYS YES U10 YES	PU YES U111 YES U27 YES PU NO U111 YES	DB YES U12 YES V28 YES DB NO U12 YES	DBG YES U13 YES U29 YES DBG YES U13 YES	U14 YES U30 NO U14 YES
USER ID fred U15 U16 YES NO U31 U32 NO NO USER ID travist U15 U16 YES YES	DB1 NO U17 YES DB1 YES	U02 YES U18 YES U02 YES	AGH 750 U03 YES U19 YES AGH 102 U03 YES	E PAQ 0 0 U04 YES U20 YES E PAQ 1 60 U04 YES	GE UU 0 UU05 YES U21 YES GE U0 U05 YES	U06 YES U22 YES DUT U06 YES	REV NO U07 YES U23 YES REV NO U07 YES	LINK YES U08 YES U24 YES LINK YES U08 YES	SA YES U09 YES U25 YES SA NO U09 YES	SYS YES U10 YES U26 YES SYS YES U10 YES	PU YES U111 YES U277 YES PU NO U111 YES	DB YES U12 YES U28 YES DB NO U12 YES	DBG YES U13 YES U29 YES DBG YES U13 YES	U14 YES U30 NO U14 YES
USER ID fred U15 U16 YES NO U31 U32 NO NO USER ID travist U15 U16 YES YES U31 U32	DB1 NO U17 YES DB1 YES U17	U02 YES U18 YES U02 YES U18	AGH 750 U03 YES U19 YES AGH 10: U03 YES U19	E PA() 0 U04 YES U20 YES E PA(1 60 U04 YES U20	GE U0 0 U05 YES U21 YES GE U0 SE U05 YES U21	U06 YES U22 YES DUT 0 * U06 YES U22	REV NO U07 YES U23 YES REV NO U07 YES U23	LINK YES U08 YES U24 YES U08 YES U08 YES U24	SA YES U09 YES V25 YES NO U09 YES U25	SYS YES U10 YES YES YES U10 YES U26	PU YES U11 YES V27 YES PU NO U11 YES U27	DB YES U12 YES U28 YES DB NO U12 YES U28	DBG YES U13 YES U29 YES DBG YES U13 YES U29	U14 YES U30 NO U14 YES U30

Continue the procedure by performing one of these steps.

ORACLE

- If the ccl through cc8 parameters are not being specified in this procedure, continue the procedure with 4.
- If the cc1 through cc8 parameters will be specified in this procedure, continue the procedure by performing one of these steps.
 - If configurable command classes are shown in the rtrv-secu-user output, continue the procedure with 3.
 - If configurable command classes are not shown in the rtrv-secu-user output, continue the procedure with 2.
- 2. Verify that the **Command Class** Management feature is enabled and activated, by entering the rtrv-ctrl-feat command with the partnum=89005801 parameter.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:
Feature Name Partnum Status Quantity
Command Class Management 893005801 off ----
```

```
Note:
```

The rtrv-ctrl-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-ctrl-feat command, see the rtrv-ctrl-feat command description in *Commands User's Guide*.

If the **Command Class** Management feature is enabled and turned on (status = on), 3.

If the **Command Class** Management feature is not enabled or turned on, perform Activating Controlled Featuresto enable and turn on the **Command Class** Management feature.

Caution:

If the **Command Class** Management feature is temporarily enabled, the configurable command classes can be assigned and used only for the amount of time shown in the Trial Period Left column in the rtrv-ctrl-feat output.

3. Display the descriptions of the configurable command classes in the database by entering the rtrv-cmd command.

This is an example of the possible output.

rlghncxa03w 09-05-01 21:15:37 GMT EAGLE5 41.0.0 CMD CLASS alw-slk link, ull



```
ent-user
                     sa
                     link
unhb-slk
rtrv-attr-seculog
                     sa, u31
inh-slk
                     link, abc
rtrv-meas-sched
                     link, abc, def
act-lbp
                     link
act-dlk
                     link
act-slk
                     link
rtrv-seculog
                     sa, abc, def, ghi
act-lpo
                     link
blk-slk
                     link, abc, u23, u31
dact-lbp
                     link
canc-dlk
                     link
inh-card
                     sys
canc-lpo
                     link, u01, u02, u03, u04, u05, u06, u07, u08,
u09, u10,
                     ull, ul2, ul3
canc-slk
                     link
ublk-slk
                     link, u01, u02, u03, u04, u05, u06, u07, u08,
u09, u10,
                     ull, ul2, ul3, ul4, ul5, ul6, ul7, ul8, ul9,
u20, u21,
                    u22, u23, u24, u25, u26, u27, u28, u29, u30,
u31, u32
inh-trm
                     sys, krb
rept-meas
                     link
.
chq-meas
                     link
tst-dlk
                     link, krb
tst-slk
                     link
```

If the desired configurable command class descriptions are not in the database, perform Configuring Command Classesto configure the desired command classes.

Note:

A user ID cannot be changed while the user is logged on, except when the revoke=yes parameter is specified with the chg-user command. It is assumed that if the user is being revoked, the intent is to immediately deny the user access to the EAGLE. In this case, the user will be logged off when the database is updated.

4. Verify that the user is not logged on the EAGLE using the rept-stat-user command.

If the user is logged on to the **EAGLE**, the chg-user command will log the user off the **EAGLE** when the command is executed. Notify the user to log off the **EAGLE**. This is an example of the possible output.

rlghncxa03w 09-05-01 09:12:15 GMT EAGLE5 41.0.0



REPT-STAT-USER	COMPLTD			
USER ID	TERM #	IDLE SINCE	COMMAND	
STATE				
fred	3	09-04-19 05:06:43	rept-stat-user	
PROCESSING				
frodo	13	09-04-20 08:12:23	chg-db	IDLE
manny	1	09-04-27 04:37:56	ent-dlk	IDLE
travist	7	09-04-30 10:06:22	rtrv-meas	IDLE

5. Change the user's characteristics using the chg-user command.

The nuid parameter changes the user **ID** of a user. This parameter is optional and if not specified, the user **ID** is not changed. The user **ID** must contain 1 alpha character and up to 15 alphanumeric characters. The first character of a user **ID** must be an alpha character. Even though a period is not an alphanumeric character, one of the 15 alphanumeric characters can be a period.

The pid parameter specifies whether the password is to be changed. If no is selected, the password is not changed. If yes is entered, you will be prompted for a new password for the user. Enter the new password for the user. You do not need to know the old password with this command. The password must meet the requirements defined by the chg-secu-dflt command. Display the password requirements by entering the rtrv-secu-dflt command.

This is an example of the possible output.

```
rlghncxa03w 10-07-01 16:02:05 GMT EAGLE5 42.0.0
SECURITY DEFAULTS
------
MINLEN 8
ALPHA 1
NUM 1
PUNC 1
```

The rtrv-secu-dflt command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-secu-dflt command, refer to the rtrv-secu-dflt command description in *Commands User's Guide*.

The password can contain from one to twelve characters. For this example, the password must contain at least eight characters, no more than twelve, with at least one alpha character (a-z), at least one numeric character (0-9), and at least one punctuation character (any printable character that is not an alphabetic character, a numeric character, the space bar). The password requirements are shown in these fields in the rtrv-secu-dflt command output.

- MINLEN the minimum length of the password
- ALPHA the minimum number of alpha characters
- NUM the minimum number of numeric characters
- PUNC the minimum number of punctuation characters

The password is not case sensitive. For security reasons, the password is never displayed on the terminal.



At the prompt verify password, enter the new password again. This pid parameter is optional and the default value is no.

The other parameters assign command class permissions to the user ID. If yes is selected for any of these parameters, the user will have access to that class of commands. If no is entered, the user will not have access to that class of commands. These parameters are optional and if not specified, the values are not changed.

For this example, the user ID manny is being changed to bilbo, and the PU, DB, DBG, and DB1 command class values are changed. Enter this command.

chg-user:uid=manny:nuid=bilbo:pu=no:db=no:dbg=no:db1=yes

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 CHG-USER: MASP A - COMPLTD

6. Verify the changes using the rtrv-secu-user command and specifying the user ID used in 5 with the uid parameter.

If the user **ID** was changed in 5, specify the new user **ID**. For this example, enter this command.

```
rtrv-secu-user:uid=bilbo
```

This is an example of the possible output.

```
rlghncxa03w 09-03-01 08:33:48 GMT EAGLE5 40.1.0
```

USEF	R ID			AGI	E PAC	GE U	OUT	REV	LINK	SA	SYS	PU	DB	DBG	
bilk	00			36	60	6	0	NO	YES	YES	YES	NO	NO	NO	
TT1 F	111 C	DB1	U02	U03	U04	U05	U06	5 U07	U08	U09	U10	U11	U12	U13	U14
015	010	YES	NO	NO	NO	YES	YES	S YES	YES	YES	YES	YES	YES	YES	YES
YES	YES														
1131	1132	U17	U18	U19	U20	U21	U22	2 U23	U24	U25	U26	U27	U28	U29	U30
NO	YES	YES	YES	YES	YES	YES	YES	S YES	YES	YES	YES	YES	NO	NO	NO
110	T D D														

7. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP.



 $\ensuremath{\mathsf{BACKUP}}$ (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-8 Changing User Information



Sheet 1 of 3







Sheet 2 of 3



Notes:

1. A user ID cannot be changed while the user is logged on, except when the revoke = yes parameter is specified with the chg-user command. It is assumed that if the user ID is being revoked, the intent is to immediately deny the user access to the EAGLE 5 ISS. In this case, the user will be logged off when the database is updated.

2. The words SEAS and NONE are reserved by the EAGLE 5 ISS and cannot be specified as values for the *nuid* parameter.

3. The *revoke* = yes parameter cannot be specified when the *sa* parameter value is *yes*.

4. To specify the cc1 through cc8 parameters, the Command Class Management feature must be enabled and activated.

5. The user can have a maximum of 32 configurable command classes assigned.

6. The *all* parameter specifies whether or not all non-configurable command classes (*link*, *sa*, *sys*, *pu*, *db*, *dbg*) can be used by the user.

7. If the *all* parameter and individual non-configurable command classes are specified with the *ent-user* command, the value of the specified individual non-configurable command classes overrides the value of the *all* parameter.

8. The password must adhere to all password provisioning rules as shown in the *rtrv-secu-dflt* output. These rules are displayed on the screen after the *chg-user* command is entered with the *pid=yes* parameter.



Sheet 3 of 3

Changing a Password

There are two different procedures that can be used to change passwords. This procedure allows a specific user to change their own password using the chg-pid command. The other procedure is for the **EAGLE** administrator to change the password of any user (see the Changing User Information procedure).

Rules for Changing a Password

The rules for the format of the password are determined by the chg-secu-dflt command (see the Changing the Security Defaults procedure for more information) and are displayed in the scroll area of the terminal before the password prompt is issued, or by entering the rtrv-secu-dflt command.

The minintrvl parameter of the chg-secu-dflt command defines the minimum number of days between attempts to change a password. If this attempt occurs during this interval, the password cannot be changed.

The pchreuse parameter of the chg-secu-dflt command defines the number of characters that cannot be reused from the current password when setting the new password. For example, if the pchreuse parameter value is 5, no more than five characters of the current password can be reused in the new password. If the new password contains more the five characters from the current password, the new password will be rejected.

The preuse parameter defines the number of previous passwords that cannot be used. If the preuse parameter value is 6, the previous six passwords cannot be used. If the new password is one of the number of previous passwords defined by the preuse parameter, the new password will be rejected.

When the password is being changed with the chg-pid command, the minimum requirements for passwords are displayed after the current password is entered at the Enter Old Password: prompt.

The password is not case sensitive. For security reasons, the password is never displayed on the terminal.

Note:

This procedure can be performed on all terminals (1 - 40) if the Eagle OA&M IP Security Enhancements feature is on. If this feature is on, the entry YES is shown for terminals 17 through 40 in the SECURE column in the rtrv-trm output. The output of the rtrv-ctrl-feat command also shows if this feature is on or off. If this feature is off, this procedure can be performed only on terminals 1 through 16. If you wish to use the EAGLE OA&M IP Security Enhancements feature, and the feature is not on, go to the Activating the EAGLE OA&M IP Security Enhancement Controlled Feature procedure to enable and activate this feature.

1. Log into the EAGLE using the login or act-user command.



This is an example of the messages that appear when you have successfully logged onto the **EAGLE**.

NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.

0 LOGIN failures since last successful LOGIN Last successful LOGIN was on port 4 on 04-06-01 @ 09:12:36

- 2. Enter the chg-pid command.
- 3. At the prompt enter old password, enter your current password.

This is a security feature of this command. It prevents another user from changing the password of the user that is logged in to the **EAGLE** who may have stepped away from the terminal without logging off.

4. At the prompt enter new password, the minimum requirements for passwords are displayed as shown in the following example.

Enter your new password making sure that the password meets the minimum requirements for passwords on your **EAGLE**.

If the password is rejected, it did not meet the minimum requirements for passwords. Go back to 2 and start the process of changing the password again making sure that the new password meets the minimum character requirements.

5. At the prompt verify new password, enter the password that was entered in 4 again.

If the password is rejected, either the new password entered in this step did not match the password entered in 4, or the password entered in 3 did not match the original password. Go back to 2 and start the process of changing the password again making sure that the current password entered in 3 is correct and that the new password meets the minimum character requirements shown at the enter new password prompt.

6. When the command executed message appears, the execution of the command has been completed, and the new password has been entered into the EAGLE database.

This message should also appear.

 Back up the new changes using the chg-db:action=backup:dest=fixed command.



These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-9 Changing a Password



Notes:

1. This procedure can be performed on all terminals Eagle OAM IP Security Enhancements feature is on. on, the entry YES is shown for terminals 17 through SECURE column in the *rtrv-trm* output. The output o command also shows if this feature is on or off. If this this procedure can be performed only on terminals 1 you wish to use the Eagle OAM IP Security Enhance and the feature is not on, go to the "Activating the Ea Security Enhancement Controlled Feature" procedur activate this feature.

2. When you are prompted to enter the new password requirements for passwords are displayed after the c is entered at the *Enter Old Password*: prompt. Make password meets these requirements and the require Rules for Changing a Password section of the 'Chan Password' procedure in the *Database Administration System Management*.



Changing Terminal Characteristics

This procedure is used to change the characteristics of a terminal, except for the SEAS terminal and a measurements terminal for an **EAGLE** containing a maximum of 700 signaling links, using the chg-trm command.

To configure a measurements terminal for an **EAGLE** containing a maximum of 700 signaling links, go to the Configuring the Measurements Terminal for an EAGLE Containing 700 Signaling Links procedure.

To configure a SEAS terminal, refer to the Configuring SEAS Terminals procedure.

The communication attributes can be changed on any terminal except on the terminal you are logged on to. The message output group assignments can be changed on any terminal, including the terminal you are logged on to. The chg-trm command uses these parameters.

: trm – terminal numbers (1 - 40, terminals 1-16 are serial terminals, terminals 17-40 are telnet terminals).

: baud – Serial port baud rate (2400, 4800, 9600, or 19200, 38400, 57600, 115200). Values 38400, 57600, and 115200 are only valid when the OAMHC is used.

: sb – The number of stop bits used in communications with the device (1 or 2).

:prty - Parity used by the device (odd, even, none).

:type – The type of device being connected (See the "Terminal Types" section).

: fc - The type of flow control used between the**EAGLE**and the output devices. (sw - software, hw - hardware, both - hardware and software, none).

Note:

Hardware flow control (fc=hw) and both hardware and software flow control (fc=both) are not supported for the terminal if the EAGLE contains E5-TDMs. Part of the terminal output may be lost if hardware flow control or both hardware and software flow control are specified for the terminal when the EAGLE contains E5-TDMs.

:tmout – The maximum amount of time, in minutes, that a login session on the specified port can remain idle (that is, no user input) on the port before being automatically logged off. (0 - 99, see the "Security Parameters" section).

:mxinv – The login failure threshold – The number of login attempt failures or attempts to unlock a terminal that can occur on the terminal before the terminal is disabled. (0 - 9, see the "Security Parameters" section).

:dural – The length of time that the terminal is disabled after the login failure threshold has been exceeded. (See the "Security Parameters" section).

:all – Specifies whether or not all unsolicited messages are displayed on the specified terminal (yes or no).



:traf – Specifies whether or not traffic related unsolicited messages are displayed on the specified terminal (yes or no).

:link – Specifies whether or not link maintenance related unsolicited messages are displayed on the specified terminal (yes or no).

: sa – Specifies whether or not security administration related unsolicited messages are displayed on the specified terminal (yes or no).

: db – Specifies whether or not database related unsolicited messages are displayed on the specified terminal (yes or no).

: sys – Specifies whether or not system maintenance related unsolicited messages are displayed on the specified terminal (yes or no).

:pu – Specifies whether or not program update related unsolicited messages are displayed on the specified terminal (yes or no).

:uimrd – Specifies whether or not **UIM** redirect related unsolicited messages are displayed on the specified terminal (yes or no).

:appserv – Specifies whether or not application server related unsolicited messages are displayed on the specified terminal. (yes or no).

:appss – Specifies whether or not application subsystem related unsolicited messages are displayed on the specified terminal (yes or no).

: card - Specifies whether or not card related unsolicited messages are displayed on the specified terminal (yes or no).

: clk - Specifies whether or not clock related unsolicited messages are displayed on the specified terminal (yes or no).

:dbg – Specifies whether or not debug related unsolicited messages are displayed on the specified terminal (yes or no).

:gtt – Specifies whether or not global title translation related unsolicited messages are displayed on the specified terminal (yes or no).

: gws – Specifies whether or not gateway screening related unsolicited messages are displayed on the specified terminal (yes or no).

:meas – Specifies whether or not measurements maintenance related unsolicited messages are displayed on the specified terminal (yes or no).

:mon - Specifies whether or not unsolicited messages related to the Sentinel monitoring functions are displayed on the specified terminal (yes or no).

:mps – Specifies whether or not **MPS** related unsolicited messages are displayed on the specified terminal (yes or no).

: seas – Specifies whether or not **SEAS** maintenance related unsolicited messages are displayed on the specified terminal (yes or no).

:logintmr – the login timer. This parameter specifies the maximum time for logging on to the telnet terminal after selecting the terminal. This timer makes sure the user logs in with in the configured time and terminal does not remain idle. The value for this timer can be from 3 seconds to 600 seconds. An additional value none indicates that the user has an indefinite amount of time to login on the telnet terminal. The system



default value for this parameter is none. This parameter can be specified only for telnet terminals (type=telnet).

:logouttmr – the logout timer. This parameter specifies the maximum time the telnet session remains open after the user manually or automatically logs out. The value for this timer can be from 0 to 1200 seconds. An additional value none indicates that the telnet session is never closed when the user logs out. The system default value for this parameter is none. This parameter can be specified only for telnet terminals (type=telnet).

:pngtimeint – the ping timer interval. This parameter specifies the amount of time that must pass before the IPSM initiates a new ping cycle. The value for this timer can be from 100 to 1200000 milliseconds. An additional value none indicates that pinging does not occur. The system default value for this parameter is none. This parameter can be specified only for telnet terminals (type=telnet) and EMSALM terminals (type=emsalm).

:pngfailcnt – This parameter specifies the number of consecutive ping fails that must occur before the telnet connection is dropped. The value for this timer can be from 1 to 10. The system default value for this parameter is 1. This parameter can be specified only for telnet terminals (type=telnet) and EMSALM terminals (type=emsalm).

The messages assigned to the output message groups defined by the traf, db, link, sa, sys, pu, uimrd, appserv, appss, card, clk, dbg, gtt, gws, meas, mon, mps, and seas parameters are listed in *Unsolicited Alarm and Information Messages Reference*.

Certain **UIMs** (unsolicited information messages) can be assigned to the **UIM** Redirect output group or remain in their original output message group. The uimrd parameter of the chg-trm command and the on=uimrd and off=uimrd parameters of the chg-stpopts command determine which output groups these UIMs are assigned to and how the EAGLE handles them.

The on=uimrd parameter of the chg-stpopts command tells the EAGLE to put these UIMs in the unsolicited **UIM** Redirect output message group. If the off=uimrd parameter is specified with the chg-stpopts command, the messages remain in their original output message group. The on=uimrd parameter value of the chgstpopts command is shown in the UIMRD row of the rtrv-stpopts output as the value yes. The off=uimrd parameter value of the chg-stpopts command is shown in the UIMRD row of the rtrv-stpopts command is shown in the UIMRD row of the rtrv-stpopts output as the value no. The uimrd=yes parameter of the chg-trm command allows the specified terminals to receive unsolicited UIM redirect output messages.

Table 4-2 shows the combination of the values of both uimrd values and how the EAGLE handles the messages. The unsolicited output group message assignments are listed in *Unsolicited Alarm and Information Messages Reference*.

UIMRD value of the terminal	UIMRD STP option value	Action
No	No (See Note 1)	The UIMs remain in their original output message group and are output to terminals receiving messages from the original output message group.

Table 4-2 UIMRD Parameter Combinations



UIMRD value of the terminal	UIMRD STP option value	Action
No	Yes (See Note 2)	The UIMs are in the UIM Redirect output group but are not output to any terminal.
		The UIMs remain in their original output message group and are output to terminals receiving messages from the original output message group.
Yes	No (See Note 1)	Even though the UIMRD value for the terminal is yes, there are no messages in the UIM redirect output group because the UIMRD value in the rtrv-stpopts output is no.
		No UIM redirect messages are output to any terminal.
Yes	Yes (See Note 2)	The UIMs are in the UIM Redirect output group and are output to terminals receiving unsolicited UIM redirect messages.
Notes:		
1. This value is se	et with the off=uin	ardparameter of the chg-stpopt scommand.

2. This value is set with theon=uimrdparameter of thechg-stpoptscommand.

If the type=vt320 or type=sccs parameters are specified, the value of the prty parameter cannot be none. The value of the prty parameter must be either odd or even.

The EAGLE requires at least two terminals assigned to the Security Administration command class. The terminal type of a terminal assigned to the Security Administration command class cannot be changed to these terminal types, printer (:type=printer) or none (:type=none) if the change would leave the EAGLE with only one terminal assigned to the Security Administration command class. The command class assignments of the terminal are shown with the rtrv-secu-trm command. If the terminal type is being changed to either printer or none, go to the Changing Terminal Command Class Assignments procedure and make sure that the command class assignment for the terminal being changed does not have the Security Administration command class assignment of another terminal to include the Security Administration command class.

If the all=yes parameter and the traf, db, link, sa, sys, pu, uimrd, appserv, appss, card, clk, dbg, gtt, gws, meas, mon, mps, Or seas parameters are specified, for example, chg-trm:trm=1:all=yes:pu=no; all the message output groups are set to yes with the exception of the message output groups specified in the chg-trm command which are set to no. In this example, the value of all the message output groups is yes (all=yes) with the exception of the program update message output group which has the value no (pu=no).

If the all=no parameter is specified for a SEAS terminal (type=seas), all the output group values are changed to NO except for the SEAS output group. The SEAS output group value remains set to YES and this message is displayed.

SEAS Output Group is SET for SEAS terminal <terminal number>



The total value of the terminals' baud rate cannot be greater than 172,032. If the total baud rate of the terminals exceeds 172,032, change the baud rates of the terminals so that the total baud rate is not greater than 172,032.

Only four terminals should be configured to receive unsolicited system maintenance messages (:sys=yes).

If the communication attributes (baud, sb, prty, and fc) or the terminal type (type) for the terminal are being changed, the terminal must be placed out of service with the rmv-trm command before the changes can be made.

If only the output message group or security (tmout, mxinv, dural) parameters are being changed, the terminal can remain in service when the chg-trm command is executed.

Terminal Types

There are nine terminal types that can be used on the **EAGLE**.

The VT320 type is the standard terminal used for entering commands, displaying command responses, displaying periodic system status information at screen specific locations, and scrolling unsolicited messages.

The PRINTER type is used with printers for recording **UAMS**, **UIMS** and echoed command responses.

The KSR type mimics older style teleprinters (that is, printers with a keyboard).

The sccs type is used for some network monitoring and surveillance applications. **SCCS** terminals are the same as **KSR** terminals, except a pre-defined "start-of-message" character is added to indicate the beginning of a new command response or unsolicited message.

The NONE type is typically used to indicate unused terminals.

The MGMT terminal type, or management terminal, provides a machine to machine messaging interface between the **EAGLE** and the customer's network to provide network surveillance.

The TELNET terminal type provides up to 24 **IP** based connections to the **EAGLE**'s user interface using a telnet client, in addition to the 16 **RS**-232 terminals. The telnet terminals are numbered from 17 to 40. The telnet terminals are configured automatically when the **IP** User Interface (Telnet) feature is enabled and activated, and when the **IPSMs** are configured in the database. The **EAGLE** can have 3 **IPSMs**, with each **IPSM** supporting eight telnet terminals. The baud, prty, sb, and fc parameters cannot be specified with the chg-trm command for a telnet terminal, but all other terminal parameters can be specified and changed for a telnet terminal. For terminals 17 to 40, the values for the type parameter can be only telnet, none, or emsalm.

Note:

If the chg-trm command is executed from a telnet terminal (terminals 17 to 40), only the output group parameters (all, traf, link, sa, db, sys, pu, uimrd, appserv, appss, card, clk, dbg, gtt, gws, meas, mon, mps, seas) and the terminal type can be changed.



The EMSALM terminal type provides an alarm monitoring capability that displays only **UAMs** and system alive messages generated by the **EAGLE**. **UIMs** and autonomous reports are not displayed on the **EMSALM** terminals, even if the output group settings for these terminals would allow these messages to be displayed on these terminals.

Caution:

EMSALM terminals can accept login requests and commands; however, these operations may interfere with the alarm monitoring functions of the **EMSALM** terminals and should be performed on another terminal.

The EMSALM terminal type can be assigned to any terminal, serial (terminals 1 to 16) or telnet (terminals 17 to 40). When the terminal type is changed to emsalm, all the output message group settings for that terminal are set to yes, even if any of the output message groups were set to no before the terminal type change. These output message group settings can be changed, if desired. The communications attributes (baud, prty, sb, fc) and security parameter values (tmout, mxinv, dural) are not changed.

Caution:

It is recommended that all the output message group settings for an **EMSALM** terminal are set to yes. Changing any of the output message group settings to no could prevent alarm messages controlled by the output message group from being displayed on the **EMSALM** terminal.

Caution:

If a terminal dedicated to measurements collection is configured (see the Configuring the Measurements Terminal for an EAGLE Containing 700 Signaling Links procedure), it is recommended that this terminal is not changed to an EMSALM terminal.

When the terminal type is changed from emsalm to another terminal type, the output message group settings, communications attributes, and security parameter values are not changed.

When assigning the EMSALM terminal type to a serial terminal, the communication attribute (baud, prty, sb, fc), security (tmout, mxinv, dural), and output group (traf, db, link, sa, sys, uimrd, appserv, appss, card, clk, dbg, gtt, gws, meas, mon, mps, seas) parameters values can be changed.

When assigning the EMSALM terminal type to a telnet terminal, only the security (tmout, mxinv, dural), and output group (traf, db, link, sa, sys, pu, uimrd, appserv, appss, card, clk, dbg, gtt, gws, meas, mon, mps, seas) parameters values can be changed.

The SEAS terminal type is used to provide a path between the EAGLE and the **CCS MR** to support the SEAS over IP feature. The SEAS terminal type is not used in this



procedure. To configure a terminal as a SEAS terminal, refer to the Configuring SEAS Terminals procedure.

Security Parameters

The monitoring of a terminal's idle time (tmout) and the automatic logout function only applies to terminal types **VT320** (type=vt320), **KSR**, (type=ksr), **SCCS** (type=sccs), and **MGMT** (type=mgmt). The tmout parameter can be specified with other terminal types, but it will have no effect. The system default value for the tmout parameter is 30 minutes. The tmout=0 parameter value allows the terminal to remain idle indefinitely without being automatically logged off.

To impose a temporary lockout of a terminal after a particular number of login attempt failures or a particular number of attempts to unlock a terminal have occurred, the mxinv and dural values for that terminal must be greater than 0.

The mxinv=0 parameter value prevents any temporary lockout of the terminal regardless of the number of successive failed login or unlock attempts that were made at the terminal. No messages are issued regarding the temporary lockout. This action applies even if the dural parameter value is greater than 0.

The dural=0 parameter prevents the terminal from being temporarily locked out. If the mxinv parameter value is greater than 0 and the dural parameter value is 0, the **EAGLE** issues messages concerning login failure threshold, but the terminal will not be locked out.

The value of the dural parameter can be expressed in seconds (0 - 59), minutes and seconds (0 - 5959), or hours, minutes, and seconds (0 - 995959). The value 9999999 for the dural parameter disables the terminal, when the login failure threshold has been exceeded, for an indefinite period of time. A terminal that is disabled for an indefinite period of time is identified by the entry INDEF in the DURAL field of the rtrv-trm command output. A terminal disabled indefinitely can only be restored to service by inhibiting the terminal with the rmv-trm command, then placing it into service with the rst-trm command.

When the **EAGLE** is delivered to the user, the mxinv and dural parameters will be set to these values:

```
:mxinv = 5
:dural = 0100 (1 minute, 0 seconds)
```

The RTRV-TRM Output

The output of the rtrv-trm command is displayed in two parts. The first part displays the communication and security attributes of the terminal. The communication attributes of the terminal, BAUD, PRTY (parity), SB (stop bits), and DBTS (data bits), are displayed in the COMM field of the rtrv-trm output and are displayed in this format: **BAUD-DBTS-PRTY-SB**. The type of flow control used by the terminal is shown in the FC field. The security attributes of the terminal are shown in the TMOUT, MXINV, and DURAL fields. The second part of the rtrv-trm command output displays the types of unsolicited messages the terminal may receive. An example of the rtrv-trm command output is shown in this example.

rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 36.0.0 TRM TYPE COMM FC TMOUT MXINV DURAL 3 VT320 9600-7-E-1 SW 30 5 99:59:59



In this example, terminal 3 is running at 9600 baud with 7 data bits, even parity, and 1 stop bit.

For terminals 17 to 40, the COMM and FC fields are not displayed in the rtrv-trm output. The following items are displayed for these terminals in addition to the security attributes and the types of unsolicited messages the terminal may receive. An example rtrv-trm output example follows the list.

- The card location of the IPSM associated with the terminals.
- The security status of the terminal is displayed in the SECURE field. If the Eagle OA&M IP Security Enhancements feature is on, the terminal is secure. The entry yes is shown in the SECURE field. If the Eagle OA&M IP Security Enhancements feature is off, the terminal is not secure. The entry no is shown in the SECURE field. Controlled Feature Activation Procedures contains the procedures to enable and turn on, or turn off the Eagle OA&M IP Security Enhancements feature.
- The login timer (LOGINTMR), logout timer (LOGOUTTMR), ping time out timer (PNGTIMEINT), and the ping fail count (PNGFAILCNT) values.

rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 39.0.0 TRM TYPE LOC TMOUT MXINV DURAL SECURE 60 TELNET 1204 00:00:00 no 30 0 TRM LOGINTMR LOGOUTTMR PNGTIMEINT PNGFAILCNT (sec) (sec) (msec) 30 1 none none none TRM TRAF LINK SA SYS PU DB UIMRD 30 YES YES YES YES YES YES YES APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 30 YES YES YES YES YES YES YES YES YES NO

Using Telnet Terminals in Place of Serial Terminals

If the Eagle OA&M IP Security feature is disabled and turned off , serial terminals must be connected to the EAGLE and provisioned in the database because Security Administration commands cannot be executed from a telnet terminal.

If the Eagle OA&M IP Security feature is enabled and on, Security Administration commands, in addition to all other commands, can be executed from a telnet terminal only if the Eagle OA&M IP Security feature is enabled and on. The ability to execute commands from a particular terminal is dependent on the terminal command class assignments for that terminal. Even with the ability to execute most EAGLE commands from a telnet terminal, it is recommended that at least two serial terminals remain



connected to the EAGLE. The act-echo, lock, and unlock commands cannot be executed from a telnet terminal. These terminals should be configured with at least Security Administration command class privileges.

By having serial terminals connected to the EAGLE, the user would still have access to the EAGLE in the event of a telnet terminal connection failure.

Upgrades of the EAGLE from a telnet terminal are not supported. When the EAGLE is upgraded, the **MASPs** are upgraded first, followed by the various cards in the EAGLE. The cards are upgraded by taking the cards out of service, then placing the cards back into service. When the **IPSMs** are taken out of service, the telnet sessions running on the IPSMs are disabled. This can result in losing the telnet terminal connection to the EAGLE. The Expanded Terminal Output Groups feature can create a situation where UIMs required for the upgrade would not be displayed on the same telnet terminal that initiated the upgrade. The upgrade would be difficult to complete if the UIMs generated during the upgrade are not displayed on the same telnet terminal that initiated the upgrade.

The EAGLE upgrade procedure recommends that some method to capture command input and output during the upgrade process is used. The telnet terminals do not support capturing the input and output, nor can the EAGLE's act-echo command be used on a telnet terminal. Because of this limitation, the upgrade procedure should not be executed from a telnet terminal.

For any EAGLE release, whether the Eagle OA&M IP Security feature is enabled or not, if applicable, Kermit file transfers, required for the **Security Log** feature, are not supported from telnet terminals. The Kermit file transfers can be performed only from a serial terminal.

1. Display the values of all terminals using the rtrv-trm command.

This is an example of the possible output.

rlghr	ncxa03w	06-10-01	16:02	2:08 G	MT EAGI	LE5 39.	0.0	
TRM	TYPE	COMM		FC	TMOUT	MXINV	DURAL	
1	VT320	9600-7-	-E-1	SW	30	5	99:59:59	
2	KSR	9600-7-	-E-1	HW	30	5	INDEF	
3	PRINTER	4800-7-	-E-1	HW	30	0	00:00:00	
4	VT320	2400-7-	-E-1	BOTH	30	5	00:30:00	
5	VT320	9600-7-	-0-1	NONE	30	5	00:00:30	
б	VT320	9600-7-	-E-2	SW	30	9	INDEF	
7	PRINTER	9600-7-	-E-2	HW	30	5	00:30:00	
8	KSR	19200-7-	-E-2	BOTH	30	5	00:30:00	
9	VT320	9600-7-	-E-1	SW	30	7	00:30:00	
10	VT320	9600-7-	-E-1	HW	30	5	00:30:00	
11	VT320	4800-7-	-E-1	HW	30	5	00:30:00	
12	PRINTER	9600-7-	-E-1	HW	30	4	00:30:00	
13	VT320	9600-7-	-0-1	NONE	30	5	00:30:00	
14	VT320	9600-7-	-E-2	SW	30	8	00:30:00	
15	VT320	9600-7-	-E-2	HW	30	5	00:30:00	
16	VT320	9600-7-	-E-2	BOTH	30	3	00:30:00	
TRM	TYPE	LOC			TMOUT	MXINV	DURAL	SECURE
17	TELNET	1201			60	5	00:30:00	yes
18	TELNET	1201			60	5	00:30:00	yes
19	TELNET	1201			60	5	00:30:00	yes



20	TELNI	ΞT	1201	1			60	5		00:	30:00	yes
21	TELNI	ΞT	1201	1			60	5		00:2	30:00	yes
22	TELNI	ΞT	1201	1			60	5		00:3	30:00	yes
23	TELNI	ΞT	1201	1			60	5		00:3	30:00	yes
24	TELNI	ΞT	1201	1			60	5		00:3	30:00	yes
TRM	LOGIN	ITMR	LOGOU	JTTMI	R PNO	GTIM	EINT	PNGFA	AILCI	T		
	(sec))	(sec)	(ms	sec)						
17	none		none		noi	ne		1				
18	none		none		noi	ne		1				
19	none		none		noi	ne		1				
20	none		none		noi	ne		1				
21	none		none		noi	ne		1				
22	none		none		noi	ne		1				
23	none		none		noi	ne		1				
24	none		none		noi	ne		1				
TRM	TRAF	LINK	C SA	SYS	PU	DB	UIM	RD				
1	NO	YES	NO	YES	NO	YES	YES					
2	NO	NO	NO	NO	NO	NO	NO					
3	YES	YES	YES	NO	YES	YES	YES					
4	YES	NO	NO	NO	NO	NO	NO					
5	NO	YES	NO	NO	NO	NO	YES					
6	NO	NO	YES	NO	NO	NO	NO					
7	YES	YES	YES	YES	YES	YES	YES					
8	NO	NO	NO	NO	YES	NO	YES					
9	NO	YES	NO	NO	NO	YES	NO					
10	NO	NO	NO	NO	NO	NO	YES					
11	YES	YES	YES	YES	YES	YES	YES					
12	YES	YES	YES	YES	YES	YES	YES					
13	NO	YES	NO	NO	NO	NO	YES					
14	NO	NO	YES	NO	NO	NO	NO					
15	YES	YES	YES	NO	YES	YES	YES					
16	NO	NO	NO	NO	YES	NO	YES					
17	NO	NO	NO	NO	NO	NO	NO					
18	NO	NO	NO	NO	NO	NO	NO					
19	NO	NO	NO	NO	NO	NO	NO					
20	NO	NO	NO	NO	NO	NO	NO					
21	NO	NO	NO	NO	NO	NO	NO					
22	NO	NO	NO	NO	NO	NO	NO					
23	NO	NO	NO	NO	NO	NO	NO					
24	NO	NO	NO	NO	NO	NO	NO					
mpM	APP A	4PP		at w	DDC	amm	avia		MONT	MDG	0.0.0.0	
TRM	SERV	SS	VEQ	CLK	DBG	GIT	GWS	MEAS	MON	MPS	SEAS	
1 1	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	NO	
2	ILS	IES	ILS	ILS	ILS	ILS	IES	ILS	ILS	ILS	NO	
3	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	NO	
ч Б	VEC VEC	VEO TEO	VEC TTP	VEO TED	VEO TED	VEO NU	VEO TED	VEC TED	VEO TED	VEO TED	NO	
5	IFO	ILD	IFO	ILS	ILS	ILS	IES	IFO	ILS	ILS	NO	
0 7	NO TEO	TES	VEC TUD	7 P C	7 P C	7 P C	7 P C	172 TZO	7 P C	7 P C	NO	
/ Q	NO	172 ALT	VEC TED	VPC 145	VPC 145	VPC 145	VPC 145	VEC TED	VPC 145	VPC 145	VEC NO	
0 Q	VPC TPD	A L C T P O	ALG TUD	VPC TPD	VPC TPD	VPC TPD	VPC TPD	ALG TTO	VPC TPD	VPC TPD	ALG TRO	
و 10	NU	л∪о	NO	NO TES	NO TES	NO TES	NU T T D	лео	NO TES	NO TES	NU TES	
- U	T.O	T . O	1 10	T 10	T 10	T 10	T 10	1 V V	T 10	T 10		

| 11 | NO |
|----|----|----|----|----|----|----|----|----|----|----|----|
| 12 | NO |
| 13 | NO |
| 14 | NO |
| 15 | NO |
| 16 | NO |
| 17 | NO |
| 18 | NO |
| 19 | NO |
| 20 | NO |
| 21 | NO |
| 22 | NO |
| 23 | NO |
| 24 | NO |

If a telnet terminal is being changed, continue the procedure with 2.

If telnet terminals are not being added in this procedure, continue the procedure by performing one of these steps.

- If the terminal type or the communication attributes of the terminal are being changed, or the pngtimeint, pngfailcnt parameters of an EMSALM terminal are being changed, continue the procedure with 3.
- If only the output message group or security parameters for the terminal are being changed, continue the procedure with 7.
- If the rtrv-trm output in 1 shows terminals 1 to 16 and you wish to add telnet terminals (type=telnet, terminals 17 through 40), go to the Adding an E5-IPSM procedure.

Adding an IPSM adds eight telnet terminals to the EAGLE.

When an **IPSM** is added to the database, the eight telnet terminals associated with the **IPSM** are added to the database with the telnet terminal type and the default values for these parameters.

- The security (tmout, mxinv, dural) parameters.
- The output message group (traf, db, link, sa, sys, pu, uimrd, appserv, appss, card, clk, dbg, gtt, gws, meas, mon, mps, seas) parameters
- The logintmr, logouttmr, pngtimeint, pngfailcnt parameters.

The only actions that can be performed on terminals 17 through 40 is changing the terminal type to either none, telnet, or emsalm, and changing the security (tmout, mxinv, dural), changing the output message group (traf, db, link, sa, sys, pu, uimrd, appserv, appss, card, clk, dbg, gtt, gws, meas, mon, mps, seas) parameters, or changing the logintmr, logouttmr, pngtimeint, pngfailcnt parameters.

If no changes are being made to the telnet terminals, either to the existing telnet terminals, or to the telnet terminals that were added in this step with "Adding an E5-IPSM" procedure, this procedure is finished.

If changes are being made to the telnet terminals, continue the procedure by performing one of these steps.

• If only the output message group or security parameters are being changed, continue the procedure with 7.



- If the terminal type or the logintmr, logouttmr, pngtimeint, pngfailcnt parameters are being changed, continue the procedure with 3.
- 3. Display the status of the terminals by entering the rept-stat-trm command.

This is an example of the possible output (another IPSM added from 2).

rlghno	cxa03w	06-10-01	15:08:45	GMT	EAGLE5	36.0.0
TRM	PST		SST		AST	
1	IS-NR		Active			
2	IS-NR		Active			
3	IS-NR		Active			
4	IS-NR		Active			
5	IS-NR		Active			
б	IS-NR		Active			
7	IS-NR		Active			
8	IS-NR		Active			
9	IS-NR		Active			
10	IS-NR		Active			
11	IS-NR		Active			
12	IS-NR		Active			
13	IS-NR		Active			
14	IS-NR		Active			
15	IS-NR		Active			
16	IS-NR		Active			
17	IS-NR		Active			
18	IS-NR		Active			
19	IS-NR		Active			
20	IS-NR		Active			
21	IS-NR		Active			
22	IS-NR		Active			
23	IS-NR		Active			
24	IS-NR		Active			
25	IS-NR		Active			
26	IS-NR		Active			
27	IS-NR		Active			
28	IS-NR		Active			
29	IS-NR		Active			
30	IS-NR		Active			
31	IS-NR		Active			
32	IS-NR		Active			

Command Completed.

If the status of the terminal that is being changed is OOS-MT-DSBLD, and the terminal type is being changed to printer or none, continue the procedure with 6.

If the status of the terminal that is being changed is OOS-MT-DSBLD, and the terminal type is not being changed to printer or none, continue the procedure with 7.

If the status of the terminal that is being changed is not OOS-MT-DSBLD, continue the procedure with 4.



4. Inhibit the terminal you wish to change using the rmv-trm command and specify the port you wish to inhibit.

```
rmv-trm:trm=4
rmv-trm:trm=8
rmv-trm:trm=19
rmv-trm:trm=23
rmv-trm:trm=21
```

When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Inhibit message sent to terminal

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 Command Completed.

5. Verify that the terminal that was inhibited in 4 is in the OOS-MT-DSBLD state by entering the rept-stat-trm command.

For this command, enter these commands.

rept-stat-trm:trm=4

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 4 OOS-MT-DSBLD MANUAL -----Command Completed.

```
rept-stat-trm:trm=8
```

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 8 OOS-MT-DSBLD MANUAL -----Command Completed.

rept-stat-trm:trm=19

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 19 OOS-MT-DSBLD MANUAL -----Command Completed.



rept-stat-trm:trm=23

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 23 OOS-MT-DSBLD MANUAL -----Command Completed.

rept-stat-trm:trm=21

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 39.0.0 TRM PST SST AST 21 OOS-MT-DSBLD MANUAL -----Command Completed.

If the terminal type is not being changed to either printer or none, continue the procedure with 7.

If the terminal type is being changed to either printer or none, continue the procedure with 6.

6. Display the command class values of all terminals using the rtrv-secu-trm command.

This is an example of the possible output.

rlghncxa03w 06-10-01 12:31:04 GMT EAGLE5 36.0.0

TRM	LINK	SA	SYS	PU	DB	DBG
1	NO	NO	YES	NO	YES	NO
2	NO	NO	NO	NO	YES	NO
3	YES	* * *	YES	YES	YES	YES
4	NO	YES	NO	NO	NO	NO
5	YES	NO	NO	NO	YES	YES
б	NO	YES	NO	NO	NO	NO
7	NO	* * *	YES	NO	YES	NO
8	NO	NO	NO	NO	NO	NO
9	YES	YES	YES	YES	YES	YES
10	NO	NO	NO	NO	NO	NO
11	YES	NO	YES	NO	YES	YES
12	NO	* * *	NO	NO	NO	NO
13	NO	NO	NO	NO	YES	YES
14	NO	YES	NO	NO	YES	YES
15	NO	NO	NO	NO	YES	YES
16	NO	NO	NO	NO	YES	YES
17	NO	NO	YES	NO	YES	NO
18	NO	NO	NO	NO	YES	NO
19	YES	NO	YES	YES	YES	YES
20	NO	YES	NO	NO	NO	NO
21	YES	NO	NO	NO	YES	YES



22	NO	YES	NO	NO	NO	NO
23	NO	NO	YES	NO	YES	NO
24	NO	NO	NO	NO	NO	NO
25	YES	YES	YES	YES	YES	YES
26	NO	NO	NO	NO	NO	NO
27	YES	NO	YES	NO	YES	YES
28	NO	NO	NO	NO	NO	NO
29	NO	NO	NO	NO	YES	YES
30	NO	YES	NO	NO	YES	YES
31	NO	NO	NO	NO	YES	YES
32	NO	NO	NO	NO	YES	YES

Note:

If the terminal type is being changed to either printer or none, make sure the EAGLE has at least two terminals assigned to the Security Administration command class (shown in the SA column in the rtrvsecu-trm output). If the terminal being changed in this procedure is being removed from the Security Administration command class, and if this change would leave the EAGLE with only one terminal assigned to the Security Administration command class, go to the Changing Terminal Command Class Assignments procedure and change the command class assignment of another terminal to include the Security Administration command class.

7. Display the UIMRD STP option value by entering the rtrv-stpopts command. This is an example of the possible output.

```
rlghncxa03w 10-07-17 16:02:05 GMT EAGLE5 42.0.0
STP OPTIONS
-----
UIMRD yes
```

Note:

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

The EAGLE sends UIMs to the terminals based on the value of the UIMRD field in the rtrv-stpopts output and the UIMRD value for the terminal. The interaction of these two values is shown in Table 4-2.

If you do not wish to change how the EAGLE handles sends UIMs to the terminal, continue the procedure with 11 and do not change the UIMRD value for the terminal.



If you do not wish to change how the EAGLE handles sends UIMs to the terminal, continue the procedure with 10. When 11 is performed, do not change the UIMRD value for the terminal.

If you wish to change how the EAGLE handles sends UIMs to the terminal, continue the procedure with 8.

8. Change the UIMRD STP option value.

To turn the UIMRD STP option on, enter this command.

chg-stpopts:on=uimrd

To turn the UIMRD STP option off, enter this command.

chg-stpopts:off=uimrd

When the command has successfully completed, this message should appear.

```
rlghncxa03w 10-07-01 15:08:45 GMT EAGLE5 42.0.0
CHG-STPOPTS: MASP A - COMPLTD
```

9. Verify the changes using the rtrv-stpopts command.

If the on=uimrd parameter was specified in 8, this is an example of the possible output.

```
rlghncxa03w 10-07-17 16:02:05 GMT EAGLE5 42.0.0
STP OPTIONS
------
UIMRD yes
```

If the off=uimrd parameter was specified in 8, this is an example of the possible output.

```
rlghncxa03w 10-07-17 16:02:05 GMT EAGLE5 42.0.0
STP OPTIONS
------
UIMRD no
```

Note:

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

If you do not wish to change the UIMRD value for the terminal, continue the procedure with 11 without specifying the uimrd parameter.

If you wish to change the UIMRD value for the terminal, continue the procedure with 11. Specify the uimrd parameter with a value, yes or no, that will change the current value for the terminal.



Continue the procedure with 10.

If you do not wish to change the UIMRD value for the terminal, when 11 is performed do not specify the uimrd parameter.

If you wish to change the UIMRD value for the terminal, when 11 is performed specify the uimrd parameter with a value, yes or no.

10. Verify the TDMs that are in the EAGLE by entering these commands.

rept-stat-card:loc=1114

This is an example of the possible output.

rlghncxa03w 10-12-17 16:02:05 GMT EAGLE5 43.0.0						
CARD	VERSION	TYPE	GPL	PST	SST	
AST						
1114		E5TDM		IS-NR	Active	

Command Completed.

rept-stat-card:loc=1116

This is an example of the possible output.

rlghncy	xa03w 10-12-1	7 16:02:05	GMT	EAGLE5 43.0.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1116		E5TDM		IS-NR	Active

Command Completed.

E5-TDMs are shown by the entry E5TDM in the TYPE column. TDMs are shown by the entry TDM in the TYPE column. Hardware flow control (fc=hw) and both hardware and software flow control (fc=both) are not supported for the terminal if the EAGLE contains E5-TDMs. Part of the terminal output may be lost if hardware flow control is specified for the terminal when the EAGLE contains E5-TDMs.

11. Change the terminal characteristics using the chg-trm command.

For this example enter these commands.

chg-trm:trm=4:baud=9600:traf=no:link=yes:sa=yes:db=yes

chg-trm:trm=19:type=none

chg-

```
trm:trm=21:sys=yes:link=yes:sa=yes:db=yes:tmout=30:logintmr=3
0:logouttmr=60 :pngtimeint=1000:pngfailcnt=3
```

```
chg-trm:trm=8:type=emsalm
```


chg-trm:trm=23:type=emsalm

Note:

If 4 was not performed in this procedure (placing the terminal out of service), do not specify these parameters with thechg-trm command:

- baud, sb, prty, fc (the communications attributes of the terminal). These parameters cannot be specified for terminals 17 to 40.
- the terminal type (type).
- the logintmr, logouttmr, pngtimeint, pngfailcnt parameters

Caution:

If the terminal type is being changed to emsalm, it is recommended that all the output message group settings for an **EMSALM** terminal are set to yes. Changing any of the output message group settings to no could prevent alarm messages controlled by the output message group from being displayed on the **EMSALM** terminal.

Caution:

If a terminal dedicated to measurements collection is configured (see the Configuring the Measurements Terminal for an EAGLE Containing 700 Signaling Links procedure), it is recommended that this terminal is not changed to an **EMSALM** terminal.

When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 CHG-TRM: MASP A - COMPLTD

12. Verify the changes made in 11 by using the rtrv-trm command with the terminal number specified in 11.

For this example, enter these commands.

rtrv-trm:trm=4

This is an example of the possible output.

rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 36.0.0 TRM TYPE COMM FC TMOUT MXINV DURAL 4 VT320 9600-7-E-1 BOTH 30 5 00:30:00 TRM TRAF LINK SA SYS PU DB UIMRD 4 NO YES YES NO NO YES NO APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 4 YES YES YES YES NO YES YES YES NO rtrv-trm:trm=19 This is an example of the possible output. rlqhncxa03w 06-10-01 16:02:08 GMT EAGLE5 39.0.0 TRM TYPE LOC TMOUT MXINV DURAL SECURE 19 NONE 1201 60 5 00:30:00 yes TRM TRAF LINK SA SYS PU DB UIMRD 19 NO NO NO NO NO NO NO APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 19 NO rtrv-trm:trm=21 This is an example of the possible output. rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 39.0.0 TRM TYPE LOC TMOUT MXINV DURAL SECURE 21 TELNET 1201 30 5 00:30:00 yes TRM LOGINTMR LOGOUTTMR PNGTIMEINT PNGFAILCNT (sec) (sec) (msec) 21 30 60 1000 3 TRM TRAF LINK SA SYS PU DB UIMRD NO YES YES YES NO YES NO 21 APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 21 NO rtrv-trm:trm=8 rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 36.0.0 TRM TYPE TMOUT MXINV DURAL COMM FC 8 EMSALM 19200-7-E-2 BOTH 30 5 00:30:00 TRM TRAF LINK SA SYS PU DB UIMRD YES YES YES YES YES YES YES 8 APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 8



```
rtrv-trm:trm=23
rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 39.0.0
TRM TYPE
            LOC
                          TMOUT MXINV DURAL
                                             SECURE
23
    EMSALM
            1201
                          60 5 00:30:00
                                             yes
TRM PNGTIMEINT PNGFAILCNT
    (msec)
23
    none
             1
TRM TRAF LINK SA SYS PU DB UIMRD
23
    YES YES YES YES YES YES YES YES YES
    APP APP
TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS
23
```



If there terminal was not inhibited in 4, continue the procedure with 13.

13. When the changes are complete, and if the terminal was inhibited in 4, activate the terminal using the rst-trm command.

For this example, enter these commands.

rst-trm:trm=4

rst-trm:trm=8

rst-trm:trm=19

rst-trm:trm=23

rst-trm:trm=21

When these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Allow message sent to terminal
```

14. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```





Figure 4-10 Changing Terminal Characteristics

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Notes:

1. If the terminal numbers are from 17 to 40, the values for the *type* parameter can be only *telnet*, *none*, or *emsalm*. The communication attributes for these terminals cannot be specified.

2. If the terminal numbers are from 1 to 16, the values for the *type* parameter can be vt320, ksr, printer, sccs, mgmt, none, or emsalm. The communication attributes for these terminals can be specified and changed.

3. The communications attributes are defined by these parameters: *baud* (baud rate), *prty* (parity), *sb* (stop bits), and *fc* (flow control).

4. The *logintmr* and *logouttmr* parameters can be specified only for TELNET terminals. The *pngfailcnt* and *pngtimeint* parameters can be specified only for TELNET and EMS ALM terminals.



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Sheet 3 of 6



Sheet 4 of 6





Sheet 5 of 6

Notes:

1. If the terminal was not placed out of service on Sheet 2, this parameter cannot be specified wir command.

2. The value of the *dural* parameter can be expressed in seconds (0 - 59), minutes and seconds minutes, and seconds (0 - 995959). The value 999999 for the *dural* parameter disables the termi failure threshold has been exceeded, for an indefinite period of time.

3. This parameter cannot be specified for terminals 17 through 40.

4. The *type =te lnet* parameter cannot be specified for terminals 1 through 16. Valid terminal types through 16 are *vt320*, *ksr*, *printer*, *sccs*, *mgmt*, *none*, or *emsalm*.

5. For terminals 17 through 40, the value of the type parameter can be only telnet, none, or emsc

6. The output group settings are set to yes when the terminal type is changed to emsalm. The or for an EMS ALM terminal can be changed.

Caution: It is recommended that all the output message group settings for an EMSALM ter yes. Changing any of the output message group settings to *no* could prevent alarm mess the output message group from being displayed on the EMSALM terminal.

Caution: If a terminal dedicated to measurements collection is configured (see the "Config Measurements Terminal for a 700 Signaling Link System" procedure in this chapter), it is this terminal is not changed to an EMSALM terminal.

7. The output group settings are not changed when the terminal type is changed from *emsalm* to type.

8. The *logintmr* and *logouttmr* parameters can be specified only for TELNET terminals. The *pngj* parameters can be specified only for TELNET and EMSALM terminals.



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Changing Terminal Command Class Assignments

This procedure is used to change the assignment of command classes to a terminal using the chg-secu-trm command. This procedure can only be performed if you have been assigned the command class "Security Administration." This can be useful to restrict the types of commands that can be entered on an **EAGLE** terminal. This procedure can only be performed if you and the terminal have been assigned the command class "Security Administration." The **EAGLE** commands are grouped into these command classes.

- Basic
- Database Administration
- Debug
- Link Maintenance
- Program Update
- Security Administration
- System Maintenance
- 32 Configurable Command Classes

With the chg-secu-trm command, only six of these command classes can be assigned to a terminal. The Basic command class is automatically assigned to every terminal and to every user and is not configurable. Refer to the *Commands Manual* for a list of command classes and the commands assigned to them.

The chg-secu-trm command uses these parameters.

:trm - The terminal number 1-16.

:all – The commands in all non-configurable command classes (dbg, link, sys, sa, pu, db) can be entered on the specified terminal.

:db - Database Administration commands can be entered on the specified terminal.

:dbg – Debug commands can be entered on the specified terminal.

:link - Link Maintenance commands can be entered on the specified terminal.

:pu – Program Update commands can be entered on the specified terminal.

: sa – Security Administration commands can be entered on the specified terminal.

: sys – System Maintenance commands can be entered on the specified terminal.

:ccl - :cc8 – Eight configurable command classes. These parameters specify whether or not the commands in the specified configurable command class can be entered on the specified terminal. The value of these parameters consist of the configurable command class name (1 alphabetic character followed by 2 alphanumeric characters), and either yes or no. The command class name and the yes or no values are separated by a dash. For example, to allow commands in the configurable command class db1 from terminal 5, the cc1=db1-yes parameter would be specified in the chg-secu-trm command for terminal5.



To specify any configurable command classes, the **Command Class** Management feature must be enabled and turned on. Enter the rtrv-ctrl-feat command to verify whether or not the **Command Class** Management feature is enabled. If the **Command Class** Management feature is not enabled or turned on, perform Activating Controlled Features to enable and turn on the **Command Class** Management feature. Up to 32 configurable command classes can be assigned to terminals. When the **Command Class** Management feature is enabled and turned on, the configurable command class names are given the names u01 - u32. These command class names, the descriptions of these command classes, and the commands assigned to these command classes can be changed using Configuring Command Classes.

The chg-secu-trm command allows up to eight configurable command classes to be assigned to a terminal each time the chg-secu-trm command is performed.

If the all=yes parameter and the db, dbg, link, pu, sa, sys parameter values are specified as no, for example, chg-secu-trm:trm=1:all=yes:pu=no; all commands can be entered on the specified terminal except those commands in the command class specified with the chg-secu-trm command. In this example, all commands can be entered on terminal 1 except for program update commands.

The terminal command class assignments cannot be changed for the specified terminal if a user is currently logged onto that terminal. This can be verified with the rept-stat-user command.

At least two terminals in the **EAGLE** must always be assigned to the security administration command class to prevent the **EAGLE** from becoming unadministerable.

It is possible that a terminal with the terminal type of printer or none can be assigned to the Security Administration command class. Terminals with these terminal types are not counted as having Security Administration authority since commands cannot be administered from these terminal types and is shown in the rtrv-secu-trm output report as "***"instead of yes.

When the **EAGLE** is delivered to the user, the terminal command class assignments will be set to the system default values for these parameters.

all = no db = no dbg = no link = no pu = no sa = yes sys = no

The examples in this procedure are used to change the command class assignments to the terminal assigned to port 4 to these values: **Link** Maintenance = yes, Security Administration = no, Program Update = yes, Database Administration = yes.

1. Display the command class values of all terminals using the rtrv-secu-trm command.

ORACLE

rlghncxa03w 06-10-01 12:31:04 GMT EAGLE5 36.0.0

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

Continue the procedure by performing one of these steps.

- If the ccl through cc8 parameters are not being specified in this procedure, continue the procedure with 4.
- If the ccl through cc8 parameters will be specified in this procedure, continue the procedure by performing one of these steps.
 - If configurable command classes are shown in the rtrv-secu-user output, continue the procedure with 3.
 - If configurable command classes are not shown in the rtrv-secu-user output, continue the procedure with 2.
- 2. Verify that the **Command Class** Management feature is enabled and turned on, by entering the rtrv-ctrl-feat command with the partnum=89005801 parameter.

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled: Feature Name Partnum Status Quantity Command Class Management 893005801 off ----

Note:

The rtrv-ctrl-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-ctrl-feat command, see the rtrv-ctrl-feat command description in *Commands User's Guide*.



If the **Command Class** Management feature is enabled and turned on (status = on), continue the procedure with 3. If the **Command Class** Management feature is not enabled or turned on, perform the Activating Controlled Features to enable and turn on the **Command Class** Management feature.

Caution:

If the **Command Class** Management feature is temporarily enabled, the configurable command classes can be assigned and used only for the amount of time shown in the Trial Period Left column in the rtrv-ctrl-feat output.

3. Display the descriptions of the configurable command classes in the database by entering the rtrv-cmd command.

This is an example of the possible output.

```
rlghncxa03w 09-05-01 21:15:37 GMT EAGLE5 41.0.0
CMD
                    CLASS
alw-slk
                    link, ull
ent-user
                    sa
unhb-slk
                    link
                    sa, u31
rtrv-attr-seculog
inh-slk
                    link, abc
                    link, abc, def
rtrv-meas-sched
act-lbp
                    link
act-dlk
                    link
act-slk
                    link
rtrv-seculog
                    sa, abc, def, ghi
act-lpo
                    link
blk-slk
                    link, abc, u23, u31
dact-lbp
                    link
canc-dlk
                    link
inh-card
                    sys
canc-lpo
                    link, u01, u02, u03, u04, u05, u06, u07, u08,
u09, u10,
                    ull, ul2, ul3
canc-slk
                    link
ublk-slk
                    link, u01, u02, u03, u04, u05, u06, u07, u08,
u09, u10,
                    ull, ul2, ul3, ul4, ul5, ul6, ul7, ul8, ul9,
u20, u21,
                    u22, u23, u24, u25, u26, u27, u28, u29, u30,
u31, u32
inh-trm
                    sys, krb
rept-meas
                    link
                    link
chg-meas
tst-dlk
                    link, krb
tst-slk
                    link
```



If the desired configurable command class descriptions are not in the database, perform Configuring Command Classesto configure the desired command classes.

4. Verify that no users are logged onto the terminal whose command class assignments you wish to change using the rept-stat-user command.

If the user is logged onto the terminal, notify the user to log off the terminal. This is an example of the possible output.

rlghncxa03w 09-05-01 09:12:15 GMT EAGLE5 41.0.0 REPT-STAT-USER COMPLTD USER ID TERM # IDLE SINCE COMMAND STATE 3 09-04-19 05:06:43 rept-stat-user fred PROCESSING 13 frodo 09-04-20 08:12:23 chg-db IDLE 1 09-04-27 04:37:56 ent-dlk IDLE manny 7 travist 09-04-30 10:06:22 rtrv-meas IDLE

 If you wish to change the Security Administration command class assignment of the specified terminal to no (:sa=no), make sure the EAGLE has at least two terminals assigned to the Security Administration command class.

This is shown in the output of 1, the rtrv-secu-trm command output, with the entry YES in the SA field. If this procedure would leave the **EAGLE** with only one terminal assigned to the Security Administration command class, use the chg-secu-trm command and change another terminal's assignment to the Security Administration command class from NO to YES. For this example, enter the chg-secu-trm:trm=1:sa=yes command

6. Change the command class assignments of the terminal using the chg-secutrm command.

For this example enter this command.

chg-secu-trm:trm=4:link=yes:sa=no:pu=yes:db=yes

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 12:31:04 GMT EAGLE5 36.0.0 CHG-SECU-TRM: MASP A - COMPLTD

7. Verify the changes made in 6 by using the rtrv-secu-trm command with the port number specified in 6.

For this example, enter this command.

rtrv-secu-trm:trm=4

This is an example of the possible output.

rlghncxa03w 06-10-01 12:31:04 GMT EAGLE5 36.0.0



TRMLINKSASYSPUDBDBG4YESNONOYESYESNO

8. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-11 Changing Terminal Command Class Assignments



Sheet 1 of 2







Sheet 2 of 2

Configuring Command Classes

This procedure is used to assign different names to the 32 configurable command classes, and to assign commands to these configurable command classes.

The **EAGLE** still has the non-configurable command classes: Basic, Database Administration, Debug, **Link** Maintenance, Program Update, Security Administration, System Maintenance.

The **Command Class** Management feature allows commands from any of these nonconfigurable command classes to placed into another command class, which can be assigned to a user or terminal. This gives greater control over the commands that users can use, and to the commands that can be executed from a given terminal. For example, a user needs to use only these commands: rtrv-card, rtrv-ls, rtrv-slk, rtrv-dstn, rtrv-rte, rtrv-user, rtrv-secu-user, rept-statdb, rept-stat-card, rept-stat-slk, rept-stat-ls, rtrv-gpl, rept-statgpl, rept-stat-rte, rept-meas.

To give this user access to these commands without the **Command Class** Management feature would require the user to be assigned to these command classes: Database, Security Administration, System Maintenance, Program Update, and **Link** Maintenance. In addition to giving access to the commands this user needs, this user has access to all the commands in these command classes. This would also allow the user to add, change, or remove database entities (cards, signaling links, routes, etc.), to inhibit signaling links, enable features with either the chg-feat or enable-ctrl-feat command that you may not want turned on.

The **Command Class** Management feature allows these commands to be placed in their own command class which can be assigned to the user. Once the new command class is configured with these commands, the commands will be in their original command classes as well as the new configured command class. The user can be restricted to executing the commands in the new configured command class.

Commands can also be removed from configurable command classes.

When the **Command Class** Management controlled feature is enabled and activated, these command classes are created with the names U01, U02, U03, ... U32. The names of these command classes, and the descriptions of these command classes can be changed with the chg-cmdclass command. The chg-cmdclass command uses these parameters.

:class - The current class name, shown in the rtrv-cmdclass command output.

:nclass – The new command class name consisting of 1 alphabetic character and 2 alpha-numeric characters.

:descr – The description of the new command class consisting of 1 alphabetic character and up to 31 alpha-numeric characters, enclosed in double quotes.

Commands can be assigned to these configurable command classes using the chg-cmd command. The chg-cmd command uses these parameters.

: cmd – The command being added or removed from the configurable command class.



:class1 - :class8 - The name of the configurable command class that command is being added to or removed from with either yes (to add the command) or no (to remove the command) separated by a dash. For example, to add a command to configurable class db1, the class1=db1-yes parameter would be specified.

Up to eight configurable command classes can be specified with the chg-cmd command. To assign the command to more than eight configurable command classes, the repeat chg-cmd command until the desired number of configurable command classes, up to 32, have been specified.

To configure command classes, the **Command Class** Management feature must be enabled and turned on. Enter the rtrv-ctrl-feat command to verify whether or not the **Command Class** Management feature is enabled. If the **Command Class** Management feature is not enabled or turned on, perform Activating Controlled Features to enable and turn on the **Command Class** Management feature.

1. Verify that the **Command Class** Management feature is enabled and turned on, by entering the rtrv-ctrl-feat command.

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled: Feature Name Partnum Status Quantity Command Class Management 893005801 off ----

Note:

The rtrv-ctrl-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-ctrl-feat command, see the rtrv-ctrl-feat command description in *Commands User's Guide*.

If the **Command Class** Management feature is enabled and turned on (status = on),.

If the **Command Class** Management feature is not enabled or turned on, perform Activating Controlled Features to enable and turn on the **Command Class** Management feature. After the Command Class Management feature is turned on, continue the procedure with 2.

Caution:

If the **Command Class** Management feature is temporarily enabled, the configurable command classes can be assigned and used only for the amount of time shown in the Trial Period Left column in the rtrv-ctrl-feat output.

2. Display the descriptions of the configurable command classes in the database by entering the rtrv-cmd command.



rlghncxa03w 09-05-03	1 21:15:37 GMT EAGLE5 41.0.0
CMD	CLASS
alw-slk	link, ull
ent-user	sa
unhb-slk	link
rtrv-attr-seculog	sa, u31
inh-slk	link, abc
rtrv-meas-sched	link, abc, def
act-lbp	link
act-dlk	link
act-slk	link
rtrv-seculog	sa, abc, def, ghi
act-lpo	link
blk-slk	link, abc, u23, u31
dact-lbp	link
canc-dlk	link
inh-card	sys
canc-lpo	link, u01, u02, u03, u04, u05, u06, u07, u08,
u09, u10,	
	ull, ul2, ul3
canc-slk	link
ublk-slk	link, u01, u02, u03, u04, u05, u06, u07, u08,
u09, u10,	
	ull, ul2, ul3, ul4, ul5, ul6, ul7, ul8, ul9,
u20, u21,	
	u22, u23, u24, u25, u26, u27, u28, u29, u30,
u31, u32	
inh-trm	sys, krb
rept-meas	link
•	
•	
chg-meas	link
tst-dlk	link, krb
tst-slk	link

If the desired configurable command class descriptions are in the database, and the commands are in the desired command classes, no further action is necessary. This procedure is finished.

Note:

If the name of a configurable command class is not being changed, continue the procedure with 6.

3. Display the configurable command class descriptions by entering the rtrvcmdclass command.



rlghncxa03w	09-03-01 21:15:37 GMT EAGLE5 40.1.0
CLASS	DESCR
link	link maintenance commands
sa	security administration commands
sys	system maintenance commands
db	database administration commands
dbg	debug commands
pu	program update commands
u01	configurable command class 1
krb	my command class description
u03	configurable command class 3
dab	your command class description
u05	configurable command class 5
u32	configurable command class 32

4. Change the configurable command class name or description by entering the chg-cmdclass command.

For this example, enter these commands.

chg-cmdclass:class=u01:nclass=db1:descr="retrieve database commands"

chg-cmdclass:class=dab:nclass=s15

chg-cmdclass:class=u03:descr="user commands 3"

Note:

The command classes link, sa, sys, db, dbg, and pu cannot be changed.

When these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
CHG-CMDCLASS: MASP A - COMPLTD
```

5. Verify the changes by entering the rtrv-cmdclass command, specifying the command class name, or new command class name if the command class name was changed, used in 4.

For this example, enter these commands.

```
rtrv-cmdclass:class=db1
```



rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CLASS DESCR db1 retrieve database commands

rtrv-cmdclass:class=s15

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CLASS DESCR s15 your command class description

rtrv-cmdclass:class=u03

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CLASS DESCR u03 user commands 3

6. Add or remove a command from the desired command classes by entering the chg-cmd command.

For this example, enter these commands.

chg-cmd:cmd=rtrv-card:class1=db1-yes

chg-cmd:cmd=tst-dlk:class1=krb-no

When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CHG-CMD: MASP A - COMPLTD

Up to eight configurable command classes can be specified with the chg-cmd command. If you wish to assign the command to more than eight configurable command classes, but no more than 32 configurable command classes, repeat this step until the desired configurable command class assignments have been made.

7. Verify the changes by entering the rtrv-cmd command specifying the cmd parameter value used in step 6.

For this example, enter these commands.

rtrv-cmd:cmd=rtrv-card



rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CMD CLASS rtrv-card db, db1

rtrv-cmd:cmd=tst-dlk

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CMD CLASS tst-dlk link

8. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.









Sheet 1 of 2



Notes:

1. Specifing the value *yes* in the *class1 - class8* parameters adds the command to the specified configurable command class.

2. Specifing the value *no* in the *class1* - *class8* parameters removes the command from the specified configurable command class.



Sheet 2 of 2

Adding a Shelf

This procedure is used to add a shelf to the database using the ent-shlf command. The shelf may not already exists in the database. The control shelf (**Shelf** 1100) cannot be added to the database. The ent-shlf command uses these parameters.

:type – The shelf type. There is only one shelf type that can be added to the database, an extension shelf, shown by the value for this parameter as ext.

:loc - The shelf location

The examples in this procedure are used to add an extension shelf to frame 3 of the **EAGLE**.

1. Display the current shelf information using the rtrv-shlf command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
SHELF DISPLAY
FRAME SHELF
                  TYPE
 1
       1
               CONTROL
 1
       2
               EXTENSION
 1
      3
               EXTENSION
       2
  2
               EXTENSION
```

2. Add the shelf using the ent-shlf command.

For this example, the shelf to be added is the first shelf in frame 3. Enter this command.

```
ent-shlf:loc=3100:type=ext
```

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 ENT-SHLF: MASP A - COMPLTD

3. Verify the changes using the rtrv-shlf command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
SHELF DISPLAY
FRAME SHELF
                 TYPE
 1
    1
              CONTROL
 1
      2
              EXTENSION
 1
      3
              EXTENSION
 2
       2
              EXTENSION
       1
 3
              EXTENSION
```



4. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-13 Adding a Shelf





Removing a Shelf

This procedure is used to remove a shelf from the database using the dlt-shlf command. If the shelf to be removed does not exist in the database, it cannot be removed. The control shelf (**Shelf** 1100) cannot be removed from the database. The dlt-shlf command has only one parameter, loc, which is the location of the shelf.

Before a shelf can be removed from the database, all of the cards in that shelf must be removed from the database. The procedures for removing these cards are based on the application that is assigned to these cards. Table 4-3 shows the location of these procedures.

Card Application	Procedure		
	"Removing an SS7 LIM"		
SS7ANSI, ATMANSI, CCS7ITU, ATMITU	"Removing an E1 Card" in the <i>Database Administration - SS7 User's Guide</i>		
	"Removing a T1 Card" in the Database Administration - SS7 User's Guide		
VSCCP	"Removing a Service Module" in the Database Administration - GTT User's Guide		
GLS	"Removing a GLS Card" in the <i>Database Administration - GWS</i> User's Guide		
IPLIM, IPLIMI, SS7IPGW, IPGWI	"Removing an IPLIMx Card" or "Removing an IPGWx Card" in the Database Administration - IP7 User's Guide		
IPSG	"Removing an IPSG Card" in the Database Administration - IP7 User's Guide		
EROUTE	"Removing an STC Card " in the <i>Database Administration - Features</i> User's Guide		
МСР	"Removing an MCPM"		
IPS	"Removing an IPSM"		

Table 4-3 Card Removal Procedures

Caution:

If any card in the shelf is the last card of that type in service, removing that card from the database will cause the traffic handled by that card to be lost or the feature requiring that card to be disabled. See Table 4-4 for a description of the effect that removing the last card type that is in service has on the EAGLE.

Table 4-4 Effect of Removing the Last In-Service Card Type from the Database

Card type	Application assigned to card	Effect on the EAGLE
LIMDS0, LIME1, LIMT1, LIMCH	SS7ANSI	ANSI traffic is lost.


Card type	Application assigned to card	d Effect on the EAGLE		
LIMATM	ATMANSI			
LIME1, LIMT1, LIMCH	CCS7ITU	ITU traffic is lost.		
LIME1ATM	ATMITU			
DSM	VSCCP	Global title translation traffic is lost. If any of the GTT-related features are enabled, the traffic for those features is also lost. Refer to the "Adding a Service Module" procedure in the <i>Database Administration</i> - <i>GTT User's Guide</i> for a list of the GTT-related features.		
TSM	GLS	Gateway screening feature is disabled.		
DCM	IPLIM	Point-to-point connectivity for IP7 Secure Gateway functions in ANSI networks is disabled.		
	IPLIMI	Point-to-point connectivity for IP7 Secure Gateway functions in ITU networks is disabled.		
	SS7IPGW	Point-to-multipoint connectivity for IP7 Secure Gateway functions in ANSI networks is disabled.		
	IPGWI	Point-to-multipoint connectivity for IP7 Secure Gateway functions in ITU networks is disabled.		
ENET	IPSG	Traffic carried by the IPSG card is lost.		
STC	EROUTE	Monitoring of the EAGLE by the EAGLE 5 Integrated Monitoring Support feature is disabled.		
МСРМ	MCP	The Measurements Platform feature is disabled.		
IPSM	IPS	IP Telnet sessions and the IP User Interface (Telnet) feature are disabled.		

Table 4-4(Cont.) Effect of Removing the Last In-Service Card Type from theDatabase

The shelf being removed in this procedure cannot be removed if the shelf is the only provisioned shelf in the frame and the frame is in the Frame Power **Alarm** Threshold table. The Frame Power **Alarm** Threshold table is shown in the rtrv-frm-pwr command output. If the frame is shown in the rtrv-frm-pwr output, and the shelf is the only shelf in the frame, perform the Removing an Entry from the Frame Power **Alarm** Threshold Table procedure to remove the frame from the Frame Power **Alarm** Threshold table.

The examples in this procedure are used to remove shelf 2100 from the database.

1. Display the cards in the database using the rtrv-card command.

This is an example of the possible output.

rlghr	ncxa03w	09-05-01	09:12:36	GMT	EAGLE5	41.0.	0		
CARD	TYPE	APPI	LSE	IT NA	AME	LINK	SLC	LSET	NAME
LINK	SLC								
1101	DSM	VSCC	CP						
1102	TSM	GLS							
1113	GSPM	OAM							



1114	TDM-A					
1115	GSPM	OAM				
1116	TDM-B					
1117	MDAL					
1201	LIMDS0	SS7ANSI	sp2	А	0	spl
В ()					
1202	LIMDS0	SS7ANSI	sp4	А	0	
1203	LIMDS0	SS7ANSI	sp3	А	0	
1204	LIMDS0	SS7ANSI	sp3	А	1	
1205	LIMDS0	SS7ANSI	nsp3	А	0	nsp4
в ()					
1206	LIMDS0	SS7ANSI	nsp3	А	1	nsp4
B 1	L					
1211	DSM	VSCCP				
1212	TSM	GLS				
1301	LIMATM	ATMANSI	lsnatm1	А	0	
1307	LIMDS0	SS7ANSI	sp2	А	1	nsp3
в 2	2					
1308	LIMATM	ATMANSI	lsnatm1	А	1	
2101	LIMDS0	SS7ANSI	sp5	А	0	sp8
в ()					
2102	LIMDS0	SS7ANSI	sp7	А	0	
2103	LIMDS0	SS7ANSI	sрб	А	0	
2104	LIMDS0	SS7ANSI	sрб	А	1	
2105			2	-	^	mamE
2105	LIMDS0	SS'/ANSI	nsp3	А	0	nspo
B (LIMDS0)	SS/ANSI	nsp3	A	0	nspo
2105 B (2106	LIMDS0) LIMDS0	SS7ANSI SS7ANSI	nsp3	A	0	nsp5

In this example, these cards must be removed from the database: 2101, 2102, 2103, 2104, 2105, 2106.

2. Based on the application assigned to the cards in the shelf to be removed, perform the appropriate procedures shown in Table 4-3 and remove all the cards from the shelf.

The application assigned to the card is shown in the APPL field of the rtrv-card command output in step 1.

3. Display the shelves configured in the database by entering the rtrv-shlf command.

This is an example of the possible output.

```
rlqhncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
SHELF DISPLAY
FRAME SHELF
                  TYPE
 1
       1
               CONTROL
       2
 1
               EXTENSION
 1
       3
               EXTENSION
 2
       1
               EXTENSION
```

If the rtrv-shlf output shows the shelf being removed in this procedure is not the only shelf in the frame, skip step 4 and go to step 5.



4. Display the frame power alarm thresholds by entering the rtrv-frm-pwr command.

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0

Frame	Power	Threshold	(Amps)
cf00			56
ef00			36

If the frame containing the shelf being removed in this procedure is shown in the rtrv-frm-pwr output, the frame must be removed from the frame power alarm threshold table (shown in the rtrv-frm-pwr output) before the shelf can be removed. The following list shows the frames and the shelves contained in those frames.

- Frame **CF00** Shelves 1200 and 1300
- Frame EF00 Shelves 2100, 2200, and 2300
- Frame EF01 Shelves 3100, 3200, and 3300
- Frame EF02 Shelves 4100, 4200, and 4300
- Frame EF03 Shelves 5100, 5200, and 5300
- Frame **EF04 Shelf** 6100

Shelf 1100 is the **Control Shelf** and is in Frame **CF00**. **Shelf** 1100 cannot be removed.

Perform the Removing an Entry from the Frame Power Alarm Threshold Table procedure to remove the frame from the frame power alarm threshold table.

If the frame containing the shelf being removed in this procedure is not shown in the rtrv-frm-pwr output, go to step 5.

5. Remove the shelf from the database using the dlt-shlf command.

For this example, enter this command.

dlt-shlf:loc=2100

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 DLT-SHLF: MASP A - COMPLTD

6. Verify the changes with the rtrv-shlf command and specify the location of the shelf.

For this example, enter this command.

rtrv-shlf:loc=2100



When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 SHELF DISPLAY LOCATION=1200 FRAME SHELF TYPE

This shelf is UNEQUIPPED in the database.

 Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-14 Removing a Shelf



Adding an SS7 LIM

This procedure is used to add a low-speed **SS7 LIM** (link interface module) to the database using the ent-card command. The **SS7 LIM** cannot be added if it exists in the database.

The SS7 LIM that is being added in this procedure is the Multiport LIM, part number 870-2061-XX. The Multiport LIM can contain eight signaling links. A maximum of 63 Multiport **LIMs** can be configured in the database. See the "Determining the Number of High-Speed and Low-Speed Signaling Links" section of Appendix D, "Reference Information," in *Database Administration - SS7 User's Guide* for information on how to determine the quantities of the different types of signaling links the EAGLE can have. The Multiport LIM is added using these parameters.

- :loc The location of the card being added to the database.
- :type The type of card being added to the database limds0.
- :app1 The application software that is assigned to the card ss7ansi.

The ent-card command also contains the force parameter. If the global title translation feature is on, the force=yes parameter allows the **LIM** to be added to the database even if the current **SCCP** transactions-per-second threshold is unable to support the additional **SCCP** transaction-per-second capacity created by adding the **LIM**. This parameter is obsolete and is no longer used.

There are other cards that support signaling links that are provisioned with the entcard command. These cards are provisioned in the following procedures. These cards can also be used to provision ITU signaling links.

- Cards for E1 signaling links are configured in the database using the procedures in Appendix A, "E1 Interface," in Database Administration - SS7 User's Guide.
- Cards for **T1** signaling links are configured in the database using the procedures in Appendix B, "T1 Interface," in *Database Administration SS7 User's Guide*.
- Cards for **ATM** high-speed signaling links are configured in the database using the procedures in Appendix C, "ATM Signaling Link Configuration," in the *Database Administration SS7 User's Guide*.
- IP cards (cards used for IP links) are configured in the database using the procedures in *Database Administration IP7 User's Guide*.

The shelf to which the card is to be added, must already be in the database. This can be verified with the rtrv-shlf command. If the shelf is not in the database, see the Adding a Shelf procedure.

1. Display the cards in the database using the rtrv-card command.

This is an example of the possible output.

rlghr	ncxa03w	09-05-01 09:	12:36 GMT EAGLE5	41.0	. 0		
CARD	TYPE	APPL	LSET NAME	LINK	SLC	LSET	NAME
LINK	SLC						
1101	DSM	VSCCP					
1102	TSM	GLS					
1113	GSPM	OAM					



1114 1115 1116		TDM-A GSPM TDM-P	OAM				
1117		MDAL					
1201		LIMDS0	SS7ANSI	sp2	A	0	sp1
В	0			-			-
1203		LIMDS0	SS7ANSI	sp3	А	0	
1204		LIMDS0	SS7ANSI	sp3	А	1	
1206		LIMDS0	SS7ANSI	nsp3	А	1	nsp4
В	1						
1301		DSM	VSCCP				
1308		LIMDS0	SS7ANSI	sрб	A	1	sp7
В	0						
1314		LIMDS0	SS7ANSI	sp7	A	1	sp5
В	1						

The cards should be distributed throughout the **EAGLE** for proper power distribution. Refer to *Installation Guide* for the shelf power distribution.

2. Add the card using the ent-card command.

For this example, enter these commands.

ent-card:loc=1205:type=limds0:appl=ss7ansi

ent-card:loc=1305:type=limds0:appl=ss7ansi

ent-card:loc=1311:type=limds0:appl=ss7ansi

When each of these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
ENT-CARD: MASP A - COMPLTD
```

3. Verify the changes using the rtrv-card command with the card location specified. For this example, enter these commands.

rtrv-card:loc=1202

This is an example of the possible output.

rlghncxa03w 09-05-01 09:12:36 GMT EAGLE5 41.0.0 CARD TYPE APPL LSET NAME LINK SLC LSET NAME LINK SLC 1202 LIMDSO SS7ANSI

rtrv-card:loc=1205

This is an example of the possible output.

rlghncxa03w 09-05-01 09:12:36 GMT EAGLE5 41.0.0 CARD TYPE APPL LSET NAME LINK SLC LSET NAME



LINK SLC 1205 LIMDSO SS7ANSI

rtrv-card:loc=1305

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 CARD TYPE APPL LSET NAME LINK SLC LSET NAME LINK SLC 1305 LIMDS0 SS7ANSI

```
rtrv-card:loc=1311
```

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 CARD TYPE APPL LSET NAME LINK SLC LSET NAME LINK SLC 1311 LIMDSO SS7ANSI

4. Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (MASP) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```



Figure 4-15 Adding an SS7 LIM





Removing an SS7 LIM

This procedure is used to remove an **SS7 LIM** (link interface module) from the database using the dlt-card command. The card cannot be removed if it does not exist in the database.

No **SS7** signaling links can be assigned to the card you wish to remove from the database.

Caution:

If the **SS7 LIM** is the last **SS7 LIM** in service, removing this card from the database will cause **SS7** traffic to be lost and isolate the **EAGLE** from the network.

Note:

1. **LIM-E1** or **LIMCH** cards for **E1** signaling links are removed from the database using the procedures in Appendix A, "E1 Interface" in *Database Administration - SS7 User's Guide*.

2. **LIM-T1** or **LIMCH** cards for **T1** signaling links are removed from the database using the procedures in Appendix B, "T1 Interface" in *Database Administration - SS7 User's Guide*.

3. **IP** cards (**DCMs** used for **IP** links) are removed from the database using the procedures in *Database Administration - IP7 User's Guide*.

The examples in this procedure are used to remove the **SS7 LIMs** in card location 1201, 1311, and 1318.

Canceling the REPT-STAT-CARD Command

Because the rept-stat-card command used in this procedure can output information for a long period of time, the rept-stat-card command can be canceled and the output to the terminal stopped. There are three ways that the rept-stat-card command can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rept-statcard command was entered.
- Enter the canc-cmd without the trm parameter at the terminal where the reptstat-card command was entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the reptstat-card command was entered, from another terminal other that the terminal where the rept-stat-card command was entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the



rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user Of rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Display the cards in the database using the rtrv-card command.

This is an example of the possible output.

rlghr	lCz	ka03w 09-0	5-01 09:12	:36 GMT EAGLE5	41.0	. 0		
CARD		TYPE	APPL	LSET NAME	LINK	SLC	LSET	NAME
LINK	SI	LC						
1101		DSM	VSCCP					
1102		TSM	GLS					
1113		GSPM	OAM					
1114		TDM-A						
1115		GSPM	OAM					
1116		TDM-B						
1117		MDAL						
1201		LIMDS0	SS7ANSI	sp2	А	0	sp1	
В	0							
1202		LIMDS0	SS7ANSI	sp2	А	1	nsp3	
В	0							
1203		LIMDS0	SS7ANSI	sp3	А	0		
1204		LIMDS0	SS7ANSI	sp3	А	1		
1205		LIMDS0	SS7ANSI	itul	А	0		
1206		LIMDS0	SS7ANSI	nsp3	А	1	nsp4	
В	0							
1212		DSM	VSCCP					
1214		TSM	GLS					
1301		LIMATM	ATMANSI	lsnatml	А	0		
1308		LIMDS0	SS7ANSI	sрб	А	0	sp7	
В	0							
1311		LIMDS0	SS7ANSI	sp2	А	2	sp1	
В	1							
				sp7	A1	1	sp3	
В1	2							
1315		LIMDS0	SS7ANSI	sp7	А	2	sp5	
В	0							
1318		LIMATM	ATMANSI	lsnatml	А	1		

2. An SS7LIM is identified by the entries SS7ANSI, CCS7ITU, or ATMANSI in the APPL field.

Display the status of the **SS7** signaling links on the card you wish to remove by entering the rept-stat-slk command, specifying the card location and signaling link. The card location is shown in the CARD field of the rtrv-card command output.

For this example, enter these commands.

rept-stat-slk:loc=1201:link=a

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0



SLK	LSN	CLLI	PST	SST	AST
1201,A	sp2		IS-NR	Avail	
ALARM	STATUS	= No Aları	ms.		
UNAVA	IL REASON	=			
Command	Completed.				

rept-stat-slk:loc=1201:link=b

This is an example of the possible output.

rlghncxa	03w 06-10	-01 09:12:36	GMT EAGLE5	36.0.0	
SLK	LSN	CLLI	PST	SST	AST
1201,B	spl		IS-NR	Avail	
ALARM	STATUS	= No Ala	rms.		
UNAVAI	L REASON	=			
Command	Completed				

rept-stat-slk:loc=1318:link=a

This is an example of the possible output.

rlghncxa	03w 06-10-	01 09:12:36	GMT EAGLE5	36.0.0	
SLK	LSN	CLLI	PST	SST	AST
1318,A	lsnatml		- IS-NR	Avail	
ALARM	STATUS	= No Ala	rms.		
UNAVAI	L REASON	=			
Command	Completed.				

rept-stat-slk:loc=1311:link=a

This is an example of the possible output.

rlghncxa0	3w 06-10-0	01 09:12:36	GMT	EAGLE5	36.0.0	
SLK	LSN	CLLI	PST		SST	AST
1311,A	sp2		- IS-1	NR.	Avail	
ALARM S	TATUS	= No Ala	rms.			
UNAVAIL	REASON	=				
Command C	completed.					

rept-stat-slk:loc=1311:link=a1

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 SLK LSN CLLI PST SST AST 1311,A1 sp7 ------ IS-NR Avail -----ALARM STATUS = No Alarms. UNAVAIL REASON = --Command Completed.



rept-stat-slk:loc=1311:link=b

This is an example of the possible output.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
SLK
        LSN
                                         SST
                                                  AST
                CLLI
                           PST
                 ----- IS-NR
1311,B spl
                                         Avail
                                                  _ _ _ _
 ALARM STATUS
                   = No Alarms.
 UNAVAIL REASON
                   = --
Command Completed.
```

rept-stat-slk:loc=1311:link=b1

This is an example of the possible output.

06-10-01	09:12:36	GMT	EAGLE5	36.0.0		
I CLI	LI	PST		SST	1	AST
		- IS-I	NR	Avail	1.	
'US	= No Ala	rms.				
ASON	=					
leted.						
	06-10-01 CL US ASON oleted.	06-10-01 09:12:36 CLLI 'US = No Ala ASON = bleted.	06-10-01 09:12:36 GMT CLLI PST 'US = No Alarms. ASON = pleted.	06-10-01 09:12:36 GMT EAGLE5 CLLI PST IS-NR US = No Alarms. ASON = bleted.	06-10-01 09:12:36 GMT EAGLE5 36.0.0 CLLI PST SST IS-NR Avail 'US = No Alarms. CASON = pleted.	06-10-01 09:12:36 GMT EAGLE5 36.0.0 CLLI PST SST 2 IS-NR Avail 'US = No Alarms. CASON = pleted.

3. Deactivate the links to the card that are not in an **OOS-MT-DSBLD** state using the dact-slk command.

For this example, enter these commands.

dact-slk:loc=1201:link=a dact-slk:loc=1201:link=b dact-slk:loc=1318:link=a dact-slk:loc=1311:link=a dact-slk:loc=1311:link=a1 dact-slk:loc=1311:link=b dact-slk:loc=1311:link=b1

When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
Deactivate Link message sent to card

4. Display the cards that are in service with the rept-stat-card:stat=nr command.

rept-stat-card:stat=nr

This is an example of the possible output.

rlghncxa03w 09-05-01 16:43:42 GMT EAGLE5 41.0.0 CARD VERSION TYPE GPL PST SST AST

ORACLE

1101	113-003-000	DSM	VSCCP	IS-NR	Active	
1102	113-003-000	TSM	GLS	IS-NR	Active	
1109	113-003-000	HMUX	BPHMUX	IS-NR	Active	
1110	113-003-000	HMUX	BPHMUX	IS-NR	Active	
1113	113-003-000	GPSM	EOAM	IS-NR	Active	
1114		TDM		IS-NR	Active	
1115	113-003-000	GPSM	EOAM	IS-NR	Standby	
1116		TDM		IS-NR	Active	
1117		MDAL		IS-NR	Active	
1201	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1203	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1204	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1205	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1206	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1209	113-003-000	HMUX	BPHMUX	IS-NR	Active	
1210	113-003-000	HMUX	BPHMUX	IS-NR	Active	
1212	113-003-000	DSM	VSCCP	IS-NR	Active	
1214	113-003-000	TSM	GLS	IS-NR	Active	
1301	113-003-000	LIMATM	ATMANSI	IS-NR	Active	
1305	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1308	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1309	113-003-000	HMUX	BPHMUX	IS-NR	Active	
1310	113-003-000	HMUX	BPHMUX	IS-NR	Active	
1311	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1314	113-003-000	LIMDS0	SS7ANSI	IS-NR	Active	
1318	113-003-000	LIMATM	ATMANSI	IS-NR	Active	

5. If the signaling links on the card to be removed from the database is the last signaling link in a linkset, the force=yes parameter must be used with the dlt-slk command.

To verify this, enter the rtrv-ls command with the linkset name shown in step 1 (LSET NAME field) or in step 2 (LSN field). For this example, enter these commands.

rtrv-ls:lsn=sp1

This is an example of the possible output

rlghncxa03w 09-07-01 16:31:35 GMT EAGLE5 41.1.0

						L3T	SLT				GWS	GWS	GWS
LSN		AP	CA	(SS7)	SCRN	SET	SET	BEI	LST	LNKS	ACT	MES	DIS
SLSCI	NIS												
spl		240	0-020	-000	scrl	1	1	ves	А	2	off	off	off
ves	off							1			-	-	-
100	011												
		CLLT		TFZ	TCABMI	.0 M ⁻	PRSF	E ASI	.8				
				2		۰۰ x.	20		20				
				2		УÇ	-0	y C.	5				
		TDCW	NDC M	אידידי כאז	רים ד	י סמי	CITCI	DATM	CT VI	ופהאדו		ריר∧	7
		TEGM	APC M	AIGUON	IFI		19091	SADM	эшкс	JOEADI	1 GI.		Ľ
		no	_								Cal	PA	
						L21	Г			PC	CR I	PCR	
		LOC	LINK	SLC TY	PE	SEI	Г ВІ	PS	ECN	1 N.	11	12	



1201 B	0	LIMDS0	1	56000	BASIC	
1311 B	0	LIMDS0	1	56000	BASIC	

Link set table is (10 of 1024) 1% full

rtrv-ls:lsn=sp2

This is an example of the possible output

rlghncxa03w 09-07-01 16:31:35 GMT EAGLE5 41.1.0

					L3T	SLT				GWS	GWS	GWS
LSN		APCA	(SS7)	SCRN	SET	SET	BEI	LST	LNKS	ACT	MES	DIS
SLSCI	NIS											
sp2		240-03	0-000	scrl	1	1	yes	А	3	off	off	off
yes	off											

CLLI TFATCABMLQ MTPRSE ASL8 ----- 2 yes yes

IPGWAPC MATELSN IPTPS LSUSEALM SLKUSEALM GTTMODE no ----- --- CdPA

				L2T			PCR	PCR
LOC	LINK	SLC	TYPE	SET	BPS	ECM	Nl	N2
1201	A	0	LIMDS0	1	56000	BASIC		
1202	А	1	LIMDS0	1	56000	BASIC		
1311	A	2	LIMDS0	1	56000	BASIC		

Link set table is (10 of 1024) 1% full

```
rtrv-ls:lsn=lsnatm1
```

This is an example of the possible output

rlghncxa03w 06-10-01 16:31:35 GMT EAGLE5 36.0.0

				L3T S	SLT			GWS	GWS	GWS
LSN	APCA	(SS7)	SCRN	SET S	SET B	EI LST	LNKS	ACT	MES	DIS
SLSCI NIS lsnatm1 yes off	240-0	40-000	scrl	1 1	L y	es A	2	off	off	off
	CLLI	TF 2	ATCABML	Q MTF yes	PRSE 2	ASL8 yes				
	IPGWAPC no	MATELSN	IPT	PS LS 	SUSEA: 	LM SLK	USEALM	GTI CdF	MODE PA	1
VPI LL	LOC LI	NK SLC I	YPE	LP SET	BPS		ATM TSEL		VCI	
	1301 A	. 0 L	IMATM	3	154	4000	INTERN	IAL	35	15



1318 A 1 LIMATM 5 1544000 LINE 5 0 Link set table is (10 of 1024) 1% full rtrv-ls:lsn=sp3 This is an example of the possible output rlghncxa03w 09-07-01 16:31:35 GMT EAGLE5 41.1.0 L3T SLT LSN APCA (SS7) SCRN SET SET BEI LST LNKS GWSA GWSM GWSD SLSCI NIS 240-050-000 scr1 1 1 yes A 3 off off off sp3 off yes TFATCABMLQ MTPRSE ASL8 CLLI ----- 2 yes yes IPGWAPC MATELSN IPTPS LSUSEALM SLKUSEALM GTTMODE no ---- ---_ _ _ CdPA L2T PCR PCR LOC LINK SLC TYPE SET BPS ECM N1 N2 1203 A 56000 BASIC --- ----0 LIMDSO 1 56000 BASIC --- ----1204 A 1 LIMDS0 1 1311 B1 2 LIMDS0 1 56000 BASIC --- ----Link set table is (10 of 1024) 1% full rtrv-ls:lsn=sp7 This is an example of the possible output rlghncxa03w 09-07-01 16:31:35 GMT EAGLE5 41.1.0 L3T SLT GWS GWS GWS LSN APCA (SS7) SCRN SET SET BEI LST LNKS ACT MES DIS SLSCI NIS 240-060-000 scr1 1 1 yes A 3 off off off sp7 off yes TFATCABMLQ MTPRSE ASL8 CLLT ----- 2 yes yes IPGWAPC MATELSN IPTPS LSUSEALM SLKUSEALM GTTMODE _____ ___ ___ ____ CdPA no L2T PCR PCR LOC LINK SLC TYPE SET BPS ECM N1 N2 1308 B 0 LIMDS0 1 56000 BASIC --- ----1311 A1 1 LIMDS0 1 56000 BASIC --- ----1315 A 2 LIMDSO 1 56000 BASIC --- ----



Link set table is (10 of 1024) 1% full

6. Inhibit the card using the rmv-card command, specifying the card location.

If the **LIM** to be inhibited contains the only signaling link in the linkset that in service, the force=yes parameter must also be specified. For this example, enter these commands.

```
rmv-card:loc=1201
rmv-card:loc=1318
rmv-card:loc=1311
```

When these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 Card has been inhibited.
```

7. Remove the signaling links on the specified card by using the dlt-slk command.

If the output of step 5 shows that the signaling link being removed is the last signaling link in a linkset, the force=yes parameter must be used. For this example, enter these commands.

```
dlt-slk:loc=1201:link=a
dlt-slk:loc=1201:link=b
dlt-slk:loc=1318:link=a
dlt-slk:loc=1311:link=a1
dlt-slk:loc=1311:link=b:force=yes
dlt-slk:loc=1311:link=b1
```

When these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
DLT-SLK: MASP A - COMPLTD
```

8. Remove the card using the dlt-card command.

The dlt-card command has only one parameter, loc, which is the location of the card. For this example, enter these commands.

```
dlt-card:loc=1201
dlt-card:loc=1318
dlt-card:loc=1311
```



When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 DLT-CARD: MASP A - COMPLTD

9. Verify the changes using the rtrv-card command specifying the card that was removed in step 8.

For this example, enter these commands.

```
rtrv-card:loc=1201
rtrv-card:loc=1318
rtrv-card:loc=1311
```

When these commands have successfully completed, this message should appear.

E2144 Cmd Rej: Location invalid for hardware configuration

 Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```



Figure 4-16 Removing an SS7 LIM



Sheet 1 of 2





Sheet 2 of 2

Configuring the UIM Threshold

This procedure is used to configure the threshold (the number of times during a specified period of time) a specific **UIM** (unsolicited information message) is displayed at an **EAGLE** terminal using the set-uim-acthresh command.

The set-uim-acthresh command uses these parameters.

: uimn – The number of the **UIM** that the threshold is being created for, or the threshold being changed. The number of the **UIM** must exist in the **EAGLE**. See *Unsolicited Alarm and Information Messages Reference* for a list of the **UIMs** that can be displayed.

:limit – The number of **UIMs** that can be displayed in the amount of time specified by the intrvl parameter.

:intrvl – The amount of time, in minutes, that the number of **UIMs** specified by the limit parameter can be displayed at the **EAGLE** terminal.

:force - The force=yes parameter allows the limit parameter to be set to 0 should the conditions at the **EAGLE** make this action necessary. Setting the limit parameter to 0 prevents the specified **UIM**, and the information contained in the **UIM**, from being displayed at the **EAGLE** terminal. It is highly recommended that the limit parameter value is not set to 0.

When the limit=0 and the force=yes parameters are specified with the set-uimacthresh command, this message appears in the scroll area of the terminal display.

Caution: Setting LIMIT=0 suppresses UIM permanently

When creating a new **UIM** threshold, both the limit and intrvl parameters must be specified with the set-uim-acthresh command.

If you are changing an existing **UIM** threshold, either the limit or intrvl parameters must be specified with the set-uim-acthresh command.

The examples used in this procedure change the time interval for the existing **UIM** threshold for **UIM** 1155 from 30 minutes to 20 minutes, the number of **UIMs** displayed for existing **UIM** threshold for **UIM** 1162 from 100 to 25, and to create a new **UIM** threshold to display **UIM** 1075 for 175 times in 30 minutes. These changes are shown in Table 4-5.

	UIM Number	Old Limit	Old Time Interval	New Limit	New Time Interval		
-	1155	50	30	No Change	20		
	1162	100	5	25	No Change		
	1075	N/A	N/A	175	30		

Table 4-5 Example UIM Threshold Configuration



1. Display the **UIM** thresholds in the database using the <code>rtrv-uim-acthresh</code> command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 08:50:12 GMT EAGLE5 36.0.0
UIMN LIMIT INTRVL
1155 50 30
1162 100 5
1216 200 15
```

The UIM Threshold Table is (3 of 499) 1% full.

2. Configure the UIM threshold using the set-uim-acthresh command.

For this example, enter these commands.

set-uim-acthresh:uimn=1155:intrvl=20

set-uim-acthresh:uimn=1162:limit=25

set-uim-acthresh:uimn=1075:limit=175:intrvl=30

When each of these commands has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 08:50:12 GMT EAGLE5 36.0.0
SET-UIM-ACTHRESH: MASP A - COMPLTD
```

3. Verify the changes using the rtrv-uim-acthresh command.

This is an example of the possible output.

rlghncxa03w 06-10-01 08:50:12 GMT EAGLE5 36.0.0 UIMN INTRVL LIMIT 1075 175 30 1155 50 20 1162 25 5 200 15 1216

The UIM Threshold Table is (4 of 499) 1% full.

4. Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (MASP) appears first

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
```



.

 $\ensuremath{\mathsf{BACKUP}}$ (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.







Removing a UIM Threshold

This procedure is used to remove a **UIM** threshold from the database using the dlt-uim-acthresh command. The dlt-uim-acthresh command has only one parameter, uimn, which specifies the **UIM** number of the **UIM** threshold that is being removed from the database.

The **UIM** threshold must be in the database.

The example in this procedure removes the **UIM** threshold for **UIM** 1216 from the database.

1. Display the **UIM** thresholds in the database using the <code>rtrv-uim-acthresh</code> command.

This is an example of the possible output.

rlghncxa03w 06-10-01 08:50:12 GMT EAGLE5 36.0.0 UIMN LIMIT INTRVL 1075 175 30 1155 50 20 25 5 1162 1216 200 15

The UIM Threshold Table is (4 of 499) 1% full.

2. Remove a **UIM** threshold from the database using the dlt-uim-acthresh command.

For this example, enter this command.

dlt-uim-acthresh:uimn=1216

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 08:50:12 GMT EAGLE5 36.0.0 DLT-UIM-ACTHRESH: MASP A - COMPLTD

3. Verify the changes using the rtrv-uim-acthresh command.

This is an example of the possible output.

rlghncxa03w 06-10-01 08:50:12 GMT EAGLE5 36.0.0 UIMN LIMIT INTRVL 1075 175 30 1155 50 20 1162 25 5

The UIM Threshold Table is (3 of 499) 1% full.

4. Back up the new changes using the chgdb:action=backup:dest=fixedcommand.



These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-18 Removing a UIM Threshold



Configuring the Measurements Terminal for an EAGLE Containing 700 Signaling Links

This procedure is used to configure a terminal to collect measurement reports on an **EAGLE** that contains from 501 to 700 signaling links. The chg-trm command is used to configure this terminal and uses these parameters to configure this terminal.

Note:

The terminal being configured in this procedure must be terminals 1 through 16. Telnet terminals cannot be specified in this procedure.

:trm - Serial port number

: baud – Serial port baud rate

: sb – The number of stop bits used in communications with the device

:prty - Parity used by the device

:type – The type of device being connected.

: fc – The type of flow control used between the EAGLE and the output devices (vt320 terminal, modem, printer, or **KSR** terminal).

:tmout – The maximum amount of time that a login session on the specified port can remain idle (that is, no user input) on the port before being automatically logged off.

:mxinv - The login failure threshold

:dural – The length of time that the terminal is disabled after the login failure threshold has been exceeded.

:all - All unsolicited messages are received by the specified port

 $: {\tt traf}$ – Traffic measurement related unsolicited messages are received by the specified port

Note:

There are other parameters that can be used with the chg-trm command but these parameters cannot be used in this procedure. For more information on these parameters, go to Changing Terminal Characteristics procedure, or to the chg-trm command description in *Commands User's Guide*.

The measurement terminal must be configured with these parameter values:

- trm=<terminal being changed>
- baud=19200
- type=ksr



• traf=yes – all other output message groups must be set to no.

The other parameters listed in this procedure do not have to be specified with the chg-trm command. If these parameters are not specified with the chg-trm command, these default values will be assigned to the measurements terminal:

- prty-even
- sb-1
- fc-sw (software)
- tmout 30 minutes
- mxinv 5
- dural 100 (1 minute, 0 seconds)

The terminal must be placed out of service before it can be configured.

If the terminal being changed has output message groups other than traf set to yes, the all=no parameter must be specified with the chg-trm command. The chg-trm command can then specified with the traf=yes parameter.

The messages assigned to the output message groups defined by the traf parameters are listed in *Unsolicited Alarm and Information Messages Reference*.

The tmout, dural, and mxinv parameters can be applied to this terminal. See the "Security Parameters" section in the Changing Terminal Characteristics procedure for more information on these parameters.

The total value of the terminals' baud rate cannot be greater than 172,032. If the total baud rate of the terminals exceeds 172,032, change the baud rates of the terminals so that the total baud rate is not greater than 172,032.

The output of the rtrv-trm command is displayed in two parts. The first part displays the communication security attributes of the terminal. The communication attributes of the terminal, BAUD, PRTY (parity), SB (stop bits), and DBTS (data bits), are displayed in the COMM field of the rtrv-trm output and are displayed in this format: **BAUD**–**DBTS–PRTY–SB**. The second part of the rtrv-trm command output displays the types of unsolicited messages the terminal may receive. An example of the rtrv-trm command output is shown in this example.

rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 36.0.0 TRM TYPE COMM FC TMOUT MXINV DURAL 3 VT320 9600-7-E-1 SW 30 5 99:59:59 TRM TRAF LINK SA SYS PU DB UIMRD YES NO YES NO YES YES 3 NO APP APP SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS TRM 3 YES YES YES YES YES YES YES YES YES NO

In this example, terminal 3 is running at 9600 baud with 7 data bits, even parity, and 1 stop bit.

The examples in this procedure are used to configure terminal 1 as the measurements terminal.



1. Display the values of all terminals using the rtrv-trm command.

This is an example of the possible output.

rlgh	ncxa0	3w 0	6-10-0	01 10	5:02	:08	GMT 1	EAGLE	536	.0.0	
TRM	TYPE		COMM		F	2	TMOU	JT MX	INV	DURA	L
1	VT32	0	9600-	-7-E·	-1 ST	N	30	5		99:5	9:59
2	KSR		9600.	-7-E·	-1 H	N	30	5		INDE	F
3	PRIN'	TER	4800-	-7-E·	-1 H	N	30	0		00:00	0:00
4	VT32	0	2400	-7-E-	-1 B(OTH	30	5		00:3	0:00
5	VT32	0	9600-	-7-0-	-1 N(ONE	30	5		00:0	0:30
6	VT32	0	9600	-7-F.	-2 91	M N	30	9		TNDFI	6 - 5 0 F
0 7	יאדסס	U TTD	9600	-7-N	_2 DI	λī.	20	5		00.00	0.00
0	VCD		10200	7 10	2 11	് വസ്ഥ	20	5		00.2	0.00
0		0	0600	-/-E. 7 E	ם ב- 1 כיו) I П Л	20	כ ד		00.3	0.00
9 10		0	9000	-/-E. 	ום ב- זוד 1	N 	20	/ E		00.3	0.00
11	VISZ	0	9000	-/-E· 	-1 H\ 1 TT	N .7	20	р С		00.3	0.00
10	VI3Z	0	4800	-/-巴· 	-1 H\	N	30	5		00.3	0.00
12	PRIN	LEK	9600-	-/-E·	-1 H\	N 	30	4		00:3	0:00
13	VT32	0	9600.	- 7-0-	-1 N(ONE	30	5		00:3	0:00
14	VT32	0	9600	-7-E·	-2 SI	N	30	8		00:3	0:00
15	VT32	0	9600	-7-N·	-2 HI	N	30	5		00:3	0:00
16	VT32	0	9600	-7-E·	-2 B(DTH	30	3		00:3	0:00
TRM	TRAF	LIN	K SA	SYS	PU	DB	UIM	RD			
1	NO	YES	NO	NO	NO	YES	YES				
2	NO	NO	NO	NO	NO	NO	NO				
3	YES	YES	YES	NO	YES	YES	YES				
4	YES	NO	NO	NO	NO	NO	NO				
5	NO	YES	NO	NO	NO	NO	YES				
6	NO	NO	YES	NO	NO	NO	NO				
7	YES	YES	YES	YES	YES	YES	YES				
8	NO	NO	NO	NO	YES	NO	YES				
9	NO	YES	NO	NO	NO	YES	NO				
10	NO	NO	NO	NO	NO	NO	YES				
11	YES	YES	YES	YES	YES	YES	YES				
12	YES	YES	YES	YES	YES	YES	YES				
13	NO	YES	NO	NO	NO	NO	YES				
14	NO	NO	YES	NO	NO	NO	NO				
15	YES	YES	YES	NO	YES	YES	YES				
16	NO	NO	NO	NO	VFC	NO	VFC				
ΞŪ	110	110	NO	110	100	NO	100				
том	CLD11	CC.	מסגיי	CT K	ססת	CTTT	CMC	MEAC	MON	MDC	CEVC
1	SERV	0 UTV	VEC	VEC	VEC	VEC	VEC	MEAS	VEC	VEC	SEAS
1	ILS	IF2	ILS	IF2	IF2	IF2	IF2	IES	IFP	IFP	NO
2	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
3	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
4	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	NO
5	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
6	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
7	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
8	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

| 12 | NO |
|----|----|----|----|----|----|----|----|----|----|----|----|
| 13 | NO |
| 14 | NO |
| 15 | NO |
| 16 | NO |

2. Inhibit the terminal you wish to change using the rmv-trm command and specify the port you wish to inhibit.

For this example, enter this command.

rmv-trm:trm=1

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 Inhibit message sent to terminal

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 Command Completed.

3. Verify that the terminal that was inhibited in step 4 is in the **OOS-MT-DSBLD** state by entering the rept-stat-trm command.

For this command, enter this command.

rept-stat-trm:trm=1

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 1 OOS-MT-DSBLD MANUAL -----Command Completed.

- 4. Configure the measurements terminal using the chg-trm command and making sure that only the traf output message group is set to yes.
 - a. If the output of the rtrv-trm command output in step 1 shows that all the output message groups are set to no, then only the traf=yes parameter needs to be specified for the output message group assignments as show in this example.

chg-trm:trm=1:type=ksr:baud=19200:traf=yes

b. If however, the rtrv-trm command output shows that output message groups other than traf are set to yes, the chg-trm command must be entered with the all=no and the traf=yes parameter as shown in this example.

chg-trm:trm=1:type=ksr:baud=19200:traf=yes:all=no

For this example enter the command shown in substep b.



When the ${\tt chg-trm}$ command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
CHG-TRM: MASP A - COMPLTD
```

5. Verify the changes made in step 4 by using the rtrv-trm command with the port number specified in step 4.

For this example, enter this command.

```
rtrv-trm:trm=1
```

This is an example of the possible output.

rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 36.0.0 TRM TYPE COMM FC TMOUT MXINV DURAL 1 KSR 19200-7-E-1 SW 30 5 00:01:00 TRM TRAF LINK SA SYS PU DB UIMRD 1 YES NO NO NO NO NO NO APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 1 NO NO

6. When the changes are complete, and if the terminal was inhibited in step 4, activate the terminal using the rst-trm command.

For this example, enter this command.

rst-trm:trm=1

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Allow message sent to terminal

 Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```





Figure 4-19 Configuring the Measurements Terminal for an EAGLE Containing 700 Signaling Links



Adding a Measurement Collection and Polling Module (MCPM)

This procedure is used to add an Measurement Collection and Polling Module (MCPM), used for the Measurements Platform feature, to the database using the ent-card command. The MCPM provides an interface between the EAGLE and the customer's network. The Measurements Platform provides a dedicated processor for collecting and transferring measurements data to a customer supplied FTP server.

The ent-card command uses these parameters.

:loc – The location of the card being added to the database.

: type – The type of card being added to the database. For this procedure, the value of this parameter is mcpm.

:appl - The application software that is assigned to the card. For this procedure, the value of this parameter is mcp.

The Measurements Platform feature requires a minimum of two **MCPM** cards (part number 870-2372-03 or later) with at least 2 **GB** of memory per card or two E5-MCPM-B cards with at least 4 GB of memory per card. The MCPM and E5-MCPM-B cards can also be used in mixed mode.

The Measurements Platform feature must be on in order to add a **MCPM** to the database. This can be verified with the rtrv-feat command. To enable the Measurements Platform feature, the measplat=on parameter must be specified with the chg-feat command.

Note:

The Measurements Platform feature must be purchased before turning on the feature. If you are not sure whether you have purchased the Measurements Platform feature, contact your Oracle Sales Representative or Account Representative.

The shelf to which the card is to be added, must already be in the database. This can be verified with the rtrv-shlf command. If the shelf is not in the database, see the Adding a Shelf procedure.

After all required **MCPMs** have been configured in the database, go to theConfiguring the Measurements Platform Feature procedure and configure the **IP** links for these **MCPMs** and enable the **Measurement Platform** feature, if necessary.

The examples in this procedure are used to add an MCPM in card location 2107.

- Verify that the MCPM (part number 870-2372-03 or later) being added to the database has been physically installed into the proper location.
- 2. Connect the Ethernet cables from the customer's network to Port A of the MCPM.
- 3. Display the cards in the database using the rtrv-card command.



This is an example of the possible output.

rlghr	lC2	xa03w 09-0	5-01 09:12	:36 GMT EAGLE5	41.0	. 0		
CARD		TYPE	APPL	LSET NAME	LINK	SLC	LSET	NAME
LINK	SI	LC						
1101		DSM	VSCCP					
1102		TSM	GLS					
1113		GSPM	OAM					
1114		TDM-A						
1115		GSPM	OAM					
1116		TDM-B						
1117		MDAL		_				
1201		LIMDS0	SS7ANSI	sp2	A	0	spl	
В	0		_	_			_	
1202		LIMDS0	SS7ANSI	sp2	А	1	nsp3	
В	0							
1203		LIMDS0	SS7ANSI	sp3	A	0		
1204		LIMDSO	SS7ANSI	sp3	A	1		
1205		LIMDSO	SS7ANSI	itul	A	0		
1206	~	LIMDSU	SS7ANS1	nsp3	A	T	nsp4	
B 1 0 1 0	0	DOM	HAGAD					
		DSM	VSCCP					
1214		TSM	GLS	7 . 1		0		
1301		LIMATM	ATMANSI	Isnatmi	A	0		
1200		STC	EROUTE	C		0	7	
1308 D	0	LIMDSU	SS/ANS1	spo	A	0	sp/	
B 1 2 1 1	0	TIMDCO	COTANCT	and	7	C	am 1	
T 2 T T	1	LIMDSU	SSTANSI	spz	A	Z	spi	
В	T			an ⁷	7.1	1	an c	
1 ת	S			spr	AL	T	sps	
D1 1215	Ъ		CC7ANCT	an ⁷	7	S	anE	
TOTO	0	LIMDSU	55/ANSI	spr	A	Z	spo	
Б 1210	0	т тмътм	ለ ጥነ አገር፣ ተ	lanatm1	7	1		
10101					А	Ŧ		
2101 2102		STC STC	FROUTE					
2105 2105		STC STC	FROUTE					
2 T O O		DIC	EROOTE					

The cards should be distributed throughout the **EAGLE** for proper power distribution. Refer to *Installation Guide* for the shelf power distribution.

Note:

If the <code>rtrv-card</code> output from step 3 shows an **MCPM** card, shown by the entries <code>MCPM</code> in the <code>TYPE</code> column and <code>MCP</code> in the <code>APPL</code> column, skip steps 4 and 5, and go to step 6.

4. Verify that the Measurements Platform feature is enabled by entering the rtrvfeat command.

If the Measurements Platform feature is on, the MEASPLAT field should be set to on. For this example, the Measurements Platform feature is off.

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Note:

The rtrv-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-feat command, see the rtrv-feat command description in *Commands User's Guide*.

Note:

If the Measurements Platform feature is on, skip step 5, and go to step 6.

5. Turn the Measurements Platform feature on by entering this command.

chg-feat:measplat=on

Note:

Once the Measurements Platform feature is turned on with the chgfeat command, it cannot be turned off. The Measurements Platform feature must be purchased before turning on the feature. If you are not sure whether you have purchased the Measurements Platform feature, contact your Oracle Sales Representative or Account Representative.

When the chg-feat has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:18:37 GMT EAGLE5 36.0.0
CHG-FEAT: MASP A - COMPLTD
```

- 6. Verify that the EAGLE has a fan unit and the fan unit is on. If the fan unit is not on, use the chg-feat:fan=on command to turn on the fan.
- 7. Add the MCPM using the ent-card command.

For this example, enter this command.

ent-card:loc=2107:type=mcpm:appl=mcp

When each of these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 ENT-CARD: MASP A - COMPLTD

8. Verify the changes using the rtrv-card command with the card location specified in step 6.

For this example, enter this command.

```
rtrv-card:loc=2107
```



This is an example of the possible output.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
CARD TYPE APPL LSET NAME LINK SLC LSET NAME
LINK SLC
2107 MCPM MCP
```

9. Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```

10. Go to the Configuring the Measurements Platform Feature procedure and configure the **IP** links for these **MCPMs** and enable the **Measurement Platform** feature, if necessary.

Note:

Before executing this procedure, make sure you have purchased the Measurements Platform feature. If you are not sure whether you have purchased the Measurements Platform feature, contact your Oracle Sales Representative or Account Representative.









Sheet 1 of 2







Sheet 2 of 2

Removing an MCPM

This procedure is used to remove a Measurement Collection & Polling Module (MCPM) from the database using the dlt-card command.

Caution:

If the **MCPM** is the last **MCPM** in service, removing this card from the database will disable the Measurements Platform feature.

The examples in this procedure are used to remove the **MCPM** in card location 2107.

Canceling the REPT-STAT-CARD Command

Because the rept-stat-card command used in this procedure can output information for a long period of time, the rept-stat-card command can be canceled and the output to the terminal stopped. There are three ways that the rept-stat-card command can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rept-statcard command was entered.
- Enter the canc-cmd without the trm parameter at the terminal where the reptstat-card command was entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the reptstat-card command was entered, from another terminal other that the terminal where the rept-stat-card command was entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user Of rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Display the cards in the database using the rtrv-card command.

This is an example of the possible output.

rlghr	ncxa03w	09-05-01	09:12:36	GMT EAGL	E5 41.0	.0		
CARD	TYPE	APPI	L LSI	ET NAME	LINK	SLC	LSET	NAME
LINK	SLC							
1101	DSM	VSC	CP					
1102	TSM	GLS						
1113	GSPM	OAM						
1114	TDM-A	7						
1115	GSPM	OAM						
1116	TDM-E	3						
1117	MDAL							
1201	LIMDS	30 SS74	ANSI spi	2	A	0	spl	



В	0						
1202		LIMDS0	SS7ANSI	sp2	A	1	nsp3
В	0						
1203		LIMDS0	SS7ANSI	sp3	А	0	
1204		LIMDS0	SS7ANSI	sp3	A	1	
1205		LIMDS0	SS7ANSI	itul	A	0	
1206		LIMDS0	SS7ANSI	nsp3	А	1	nsp4
В	0						
1212		DSM	VSCCP				
1214		TSM	GLS				
1301		LIMATM	ATMANSI	lsnatml	A	0	
1303		STC	EROUTE				
1308		LIMDS0	SS7ANSI	sp6	А	0	sp7
В	0						
1311		LIMDS0	SS7ANSI	sp2	А	2	spl
В	1						
				sp7	A1	1	sp3
B1	2						
1315		LIMDS0	SS7ANSI	sp7	A	2	sp5
В	0						
1318		LIMATM	ATMANSI	lsnatml	A	1	
2101		STC	EROUTE				
2103		STC	EROUTE				
2105		STC	EROUTE				
2107		MCPM	MCP				
2108		MCPM	MCP				
2111		MCPM	MCP				

An **MCPM** is identified by the entries MCPM in the TYPE field and MCP in the APPL field.

2. Display the status of the MCPMs in the database with the rept-stat-meas command.

This is an example of the possible output.

rlghncxa03w 09-02-01 16:43:42 GMT EAGLE5 40.0.0

	PS	Г	SST	AST	
MEAS SS	IS	-NR	Active		
	ALARM STATUS =	No Alarms	1		
CARD	VERSION	TYPE	PST	SST	AST
2107	P 101-009-000	MCPM	IS-NR	Active	
I	P Link A		IS-NR	Active	
Availabl	e				
2108	101-009-000	MCPM	IS-NR	Active	
I	P Link A		IS-NR	Active	
Availabl	e				
2111	101-009-000	MCPM	IS-NR	Active	
I	P Link A		IS-NR	Active	
Availabl	e				
CARD	2107 ALARM STAT	JS = No Al	arms		

CARD 2108 ALARM STATUS = No Alarms CARD 2111 ALARM STATUS = No Alarms

 Inhibit the MCPM using the rmv-card command, specifying the card location of the MCPM.

If the **MCPM** to be inhibited is the last **MCPM** that is in service, the force=yes parameter must also be specified. For this example, enter this command.

rmv-card:loc=2107

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
Card has been inhibited.
```

4. Remove the card using the dlt-card command.

The dlt-card command has only one parameter, loc, which is the location of the card. For this example, enter these commands.

```
dlt-card:loc=2107
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
DLT-CARD: MASP A - COMPLTD
```

5. Verify the changes using the rtrv-card command specifying the card that was removed in step 4.

For this example, enter these commands.

rtrv-card:loc=2107

When this command has successfully completed, this message should appear.

E2144 Cmd Rej: Location invalid for hardware configuration

 Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```



Figure 4-21 Removing a MCPM



Activating the Fan Feature

This procedure is used to activate the fan using the chg-feat command with this parameter.

- fan=on turns the fan on. When the fan is turned on, system cards and functions that generate heat in the EAGLE can function properly.
- 1. Enter the rtrv-feat command to check the status of the Fan feature.



- 2. If the fan feature is not on, use the chg-feat:fan=on command to turn on the fan.
- 3. Verify the changes using the rtrv-feat command.

Configuring the Measurements Platform Feature

This procedure is used to configure **IP** communications links between the EAGLE and the customer's network and enable the Measurements Platform on the EAGLE using these commands:

- ent-ip-host Configuring the IP host of the MCPM
- chg-ip-card Configuring the IP address of the MCPM
- chg-ip-lnk Configuring the IP link assigned to the MCPM
- chg-measopts Enabling the Measurements Platform option

These commands contain parameters that are not used in this procedure. *Commands User's Guide* contains a full description of these commands.

The Measurements Platform requires measurements **FTP** servers. A maximum of three measurements FTP servers can be configured with one of these procedures.

- Adding an FTP Server
- Changing an FTP Server

MCPMs must be configured in the database before this procedure can be performed. This can be verified with the rtrv-card command.

If a Class B IP address is specified for the ipaddr parameter of the chg-ip-lnk command, the subnet address that results from the ipaddr and submask parameter values cannot be the same as the subnet address that results from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command. The pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values can be verified by entering the rtrv-netopts

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command. Choose ipaddr and submask parameter values for the IP link to the MCPM whose resulting subnet address is not be the same as the subnet address that resulting from the pvn and pvnmask, fcna and fcnamask, Or fcnb and fcnbmask parameter values of the chg-netopts command.

1. Display the cards in the database using the rtrv-card command.

This is an example of the possible output.

rlghn	cxa03w 07-1	3-13 09:12	:36 GMT EAGLE5	45.0	.0		
CARD	TYPE	APPL	LSET NAME	LINK	SLC	LSET	NAME
LINK	SLC						
1101	DSM	VSCCP					
1102	TSM	GLS					
1113	E5MCAP	OAMHC					
1114	E5TDM-A						
1115	E5MCAP	OAMHC					
1116	E5TDM-B						
1117	E5MDAL						
1201	LIMDS0	SS7ANSI	sp2	А	0	sp1	
В	0						
1202	LIMDS0	SS7ANSI	sp2	А	1	nsp3	
В	0						
1203	LIMDS0	SS7ANSI	sp3	А	0		
1204	LIMDS0	SS7ANSI	sp3	А	1		
1206	LIMDS0	SS7ANSI	nsp3	А	1	nsp4	
В	0						
1212	DSM	VSCCP					
1214	TSM	GLS					
1301	LIMATM	ATMANSI	lsnatml	А	0		
1303	STC	EROUTE					
1308	LIMDS0	SS7ANSI	зрб	А	0	sp7	
В	0						
1311	LIMDS0	SS7ANSI	sp2	А	2	spl	
В	1						
			sp7	A1	1	sp3	
B1	2						
1315	LIMDS0	SS7ANSI	sp7	А	2	sp5	
В	0						
1318	LIMATM	ATMANSI	lsnatml	А	1		
2101	STC	EROUTE					
2103	STC	EROUTE					
2105	STC	EROUTE					
2107	MCPM	MCP					
2108	MCPM	MCP					

If no MCPMs are configured in the database, identified by the entries MCPM in the TYPE field and MCP in the APPL field, go to the Adding a Measurement Collection and Polling Module (MCPM) procedure and configure the required MCPMs.

2. Display the status of the MCPMs in the database with the ${\tt rept-stat-meas}$ command.



This is an example of the possible output.

е

1061001 11-12-05 18:35:5	8 EST E	AGLE5 44.0.0-6	4.16.0	
	PST	SST	AST	
MEAS SS	IS-NR	Active		
ALARM STATUS =	No Alarm	S		
CARD VERSION	TYPE	PST	SST	AST
1105 P 099-016-000	MCPM	IS-NR	Active	
IP Link A		OOS-MA	Ueq	
1106 099-016-000	MCPM	IS-NR	Active	
IP Link A		OOS-MA	Ueq	
CARD 1105 ALARM STATU	S = NO A	larms		
CARD 1106 ALARM STATU	S = No A	larms		

If the status of the MCPM that the IP Link is being assigned to is OOS-MT DSBLD, continue the procedure by performing one of these steps.

- If a Class A or C **IP address** will be specified for the *ipaddr* parameter in 6, continue the procedure with 5.
- If a Class B **IP address** will be specified for the ipaddr parameter in 6, continue the procedure with 4.

If the status of the MCPM that the IP Link is being assigned to is not OOS-MT DSBLD, continue the procedure with 3.

3. Inhibit the MCPM using the rmv-card command, specifying the card location of the MCPM.

If the MCPM to be inhibited is the last MCPM that is in service, the force=yes parameter must also be specified. For this example, enter this command.

rmv-card:loc=2107

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
Card has been inhibited.

Continue the procedure by performing one of these steps.

- If a Class A or C **IP address** will be specified for the *ipaddr* parameter in 6, continue the procedure with 5.
- If a Class B **IP address** will be specified for the *ipaddr* parameter in 6, continue the procedure with 4.
- 4. The subnet address that results from the ipaddr and submask parameter values of the chg-ip-lnk command cannot be the same as the subnet address that results from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command.

Display the pvn, pvnmask, fcna, fcnamask, fcnb, and fcnbmask parameter values of the chg-netopts command by entering the rtrv-netoptscommand.



If error message E3967 Cmd Rej: E5IS must be on is displayed after the rtrv-netopts command is executed, the pvn, pvnmask, fcna, fcnamask, fcnb, and fcnbmask parameters are not configured. Continue the procedure with 5.

This is an example of the possible output if the **E5IS** feature is on.

rlghncxa03w 09-02-28 21:17:37 GMT EAGLE5 40.1.0 NETWORK OPTIONS ------PVN = 128.20.30.40 PVNMASK = 255.255.192.0 FCNA = 170.120.50.0 FCNA = 255.255.240.0 FCNB = 170.121.50.0 FCNBMASK = 255.255.254.0

Choose ipaddr and submask parameter values for the **IP** link to the **MCPM** whose resulting subnet address is not be the same as the subnet address that resulting from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command. Continue the procedure with 5.

5. Display the IP link assignments using the rtrv-ip-lnk command.

The following is an example of the possible output.

```
rlghncxa03w 08-12-01 21:20:37 GMT EAGLE5 40.0.0
LOC
    PORT IPADDR
                    SUBMASK
                              DUPLEX SPEED MACTYPE
AUTO MCAST
2107 A
       ----- HALF
                                    10
                                        DIX
NO
  NO
2107 В
                                    10
       ----- HALF
                                        DIX
NO NO
       150.123.123.123 255.255.255.0 HALF
2108 A
                                    100
                                        DIX
NO
  YES
2108 в
        ----- HALF
                                    10
                                        DIX
NO NO
2111 A
       150.123.123.125 255.255.255.0 HALF
                                    100
                                        DIX
NO
  YES
2111 в
        ----- HALF
                                    10
                                        DIX
NO NO
```

IP-LNK table is (6 of 2048) 1% full.

6. Assign an IP link to the MCPM using the chg-ip-lnk command with these parameters: loc, port=a, ipaddr, submask, speed=100, mcast=yes, duplex=full.

For this example, enter this command.

```
chg-ip-
lnk:loc=2107:port=a:ipaddr=150.1.1.1:submask=255.255.255.0 :s
peed=100:mcast=yes:duplex=full
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:20:37 GMT EAGLE5 36.0.0
CHG-IP-LNK: MASP A - COMPLTD
```

7. Assign a default router to the MCPM using the chg-ip-card command with these parameters: loc, srchordr, domain, and defrouter.

For this example, enter this command.

```
chg-ip-
card:loc=2107:srchordr=local:domain=nc.tekelec.com :defrouter
=150.1.1.50
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
CHG-IP-CARD: MASP A - COMPLTD
```

 Display the current IP host information in the database by entering the rtrv-iphost:display=all command.

The following is an example of the possible output.

rlghncxa03w 07-13-13 09:12:36 GMT EAGLE5 45.0.0 LOCAL IPADDR LOCAL HOST 150.1.1.2 GW102.NC.TEKELEC.COM 150.1.1.3 GW103.NC.TEKELEC.COM REMOTE IPADDR REMOTE HOST 150.1.1.5 NCDEPTECONOMIC_DEVELOPMENT.SOUTHEASTERN_COORIDOR_ASHVL.GOV

IP Host table is (3 of 4096) <1% full

9. Assign an IP host to the MCPM using the ent-ip-host command.

For this example, enter this command.

ent-ip-host:host=gw100.nc.tekelec.com:ipaddr=150.1.1.1

When this command has successfully completed, the following message should appear.

```
rlghncxa03w 06-10-01 21:18:37 GMT EAGLE5 36.0.0
ENT-IP-HOST: MASP A - COMPLTD
```

 Place the MCPM back into service using the rst-card specifying the location of the MCPM.

For this example, enter this command.

rst-card:loc=2107



When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:20:37 GMT EAGLE5 36.0.0
Card has been allowed.
```

11. Display the FTP Server configuration using the rtrv-ftp-serv command.

FTP SERV table is (2 of 10) 20% full

The EAGLE allows three FTP servers for the Measurements Platform. If no FTP servers or one FTP server is in the database, go to the Adding an FTP Server procedure, and backup the FTP server. To change any of these configured FTP servers, go to the Changing an FTP Server procedure.

12. Verify whether or nor the Measurements Platform option is enabled (PLATFORMENABLE = on) using the rtrv-measopts command.

```
e1061001 11-12-05 18:50:10 EST EAGLE5 44.0.0-64.16.0
PLATFORMENABLE = off
COLLECT15MIN = off
CLLIBASEDNAME = off
OAMHCMEAS = off
------
SYSTOTSTP = on
SYSTOTTT = off
```

Note:

The rtrv-measopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-measopts command, see the rtrv-measopts command description in *Commands User's Guide*.

Continue the procedure by performing one of these steps.

- If the Measurements Platform option is enabled, continue the procedure with 15.
- If the Measurements Platform option is not enabled, continue the procedure with 13.



13. Enable the Measurements Platform option using the chg-measopts command with the platformenable parameter.

For this example, enter this command.

chg-measopts:platformenable=on

When the ${\tt chg-measopts}$ command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 00:22:57 GMT EAGLE5 36.0.0 CHG-MEASOPTS: MASP A - COMPLTD

14. Verify the status of the MCPM using the rept-stat-meas command.

For this example, enter this command.

rept-stat-meas

e1061001 11-12-05 18:46:58 EST EAGLE5 44.0.0-64.16.0 PST SST AST MEAS SS IS-ANR Restrict -----ALARM STATUS = No Alarms CARD VERSION TYPE PST SST AST Active 1105 P 099-016-000 MCPM IS-NR ____ IS-NR ____ IP Link A Active 1106 099-016-000 MCPM ____ IS-NR Active IP Link A IS-NR Active ____ CARD 1105 ALARM STATUS = No Alarms CARD 1106 ALARM STATUS = No Alarms

15. Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-22 Configuring the Measurements Platform Feature



Sheet 1 of 4















Sheet 4 of 4

Adding an FTP Server

This procedure is used to add **FTP** servers using the ent-ftp-serv command.

The ent-ftp-serv command uses these parameters.

: app - The application of the FTP server. There are four values for the app parameter:

- meas The FTP servers for the Measurements Platform. A maximum of three FTP servers can be configured for this application.
- db The FTP server for the database backup/restore application. Only one FTP server can be configured for this application.
- dist the FTP server for the EAGLE software release distribution application. Only one FTP server can be configured for this application.
- user The FTP servers for the FTP Retrieve and Replace feature. A maximum of two FTP servers can be configured for this application.

Caution:

While this procedure can be used to add a **USERFTP** server, any **USERFTP** servers entered by this procedure will be overwritten by the **FTP** server configuration information sent to the **EAGLE** by the **FTP**-Based Table Retrieve Application (**FTRA**).

- :ipaddr The IP address of the FTP server.
- :login The name of the **FTP** server client.
- :path The path to the file on the **EAGLE** that is to be sent to the **FTP** server.
- :prio The priority of the FTP server, from 1 to 10.

The app/ipaddr parameter combination must be unique in the database.

The login parameter value can contain from 1 to 15 alpha-numeric characters. The alphabetic characters can be both upper and lower case characters.

The path parameter value is a mixed-case quoted character string with a valid **FTP** path format that can contain up to 100 characters.

After the **FTP** server is added to the database with the ent-ftp-serv command, the user is prompted for a password for this **FTP** server. The password can contain from 1 to 15 alpha-numeric characters. The alphabetic characters must be both upper and lower case characters. The password is not shown on the terminal screen as it is being entered and is not shown in the rtrv-ftp-serv output.

If the EAGLE **OA**&M **IP** Security Enhancement Controlled Feature is enabled and activated, the **FTP** servers configured in this procedure must be secure **FTP** servers. The **FTP**-Based Table Retrieve Application (**FTRA**) and the Measurements Platform must support secure shell connections to the **EAGLE**. Enter the rtrv-ctrl-feat



command to verify whether or not the Eagle **OA**&M **IP** Security Enhancement Controlled Feature is enabled and activated.

Because CSV measurement data files do not have unique names across multiple STPs, include the CLLI of the STP in the FTP server path for meas FTP servers.

The IP address of the FTP server cannot be shown as the IPADDR value in the rtrv-ip-lnk Or rtrv-seas-config Outputs, or the BPIPADDR value in the rtrv-ip-card Output.

1. Display the **FTP** servers in the database using the rtrv-ftp-serv commandby entering this command..

```
rtrv-ftp-serv:mode=full
```

This is an example of the possible output.

```
rlghncxa03w 08-09-01 09:12:36 GMT EAGLE5 39.2.0
FTP Client Security: ON
```

	APP	IPADDR	LOGIN	PRIO
<pre>meas 1.255.0.100 ftpmeas3 3 Path: ~meas\local</pre>	meas Path:	 1.255.0.100 ~meas\local	ftpmeas3	3

FTP SERV table is (1 of 10) 10% full

2. Add the FTP server to the database using the ent-ftp-serv command.

For this example, enter these commands.

```
ent-ftp-
serv:app=meas:ipaddr=1.255.0.101:login=ftpmeas2:prio=2 :path=
"\tmp\measurements\backup\dat"
ent-ftp-
serv:app=user:ipaddr=1.255.0.100:login=ftpuser1:prio=3 :path=
"\tmp\user"
ent-ftp-
serv:app=user:ipaddr=1.255.0.102:login=ftpuser5:prio=7 :path=
"\tmp\backup\user"
ent-ftp-
serv:app=db:ipaddr=10.20.50.102:login=dbuser1:prio=1 :path="~
/eagle"
ent-ftp-
serv:app=dist:ipaddr=100.200.50.102:login=dbuser1:prio=1 :path="~
```



Caution:

While this procedure can be used to add a **USER** FTP server, any USER **FTP** servers entered by this procedure will be overwritten by the FTP server configuration information sent to the EAGLE by the EAGLE FTP Table Base Retrieval (**FTRA**).

When each of these commands has successfully completed, the following message should appear.

```
rlghncxa03w 08-09-01 21:18:37 GMT EAGLE5 39.2.0
Enter Password :
   FTP SERV table is (4 of 10) 40% full
   ENT-FTP-SERV: MASP A - COMPLTD
```

rlghncxa03w 06-10-01 21:18:37 GMT EAGLE5 36.0.0
FTP SERV table is (4 of 10) 40% full
ENT-FTP-SERV: MASP A - COMPLTD

3. Enter a password for the FTP server added in 2 at the PASSWORD: prompt.

The password is not shown on the terminal screen as it is entered. The password can contain from 1 to 15 alpha-numeric characters. The alphabetic characters must be both upper and lower case characters.

4. Display the changes by entering this command.

rtrv-ftp-serv:mode=full

The following is an example of the possible output.

rlghncxa03w 08-09-01 09:12:36 GMT EAGLE5 39.2.0 FTP Client Security: ON

APP	IPADDR	LOGIN	PRIO
db	10.20.50.102	dbuser1	1
Path:	~/eagle		
dist	100.200.50.102	dbuser1	1
Path:	~/eagle		
meas	1.255.0.100	ftpmeas3	3
Path:	~meas\local		
meas	1.255.0.101	ftpmeas2	2
Path:	\tmp\measurement	s\backup\dat	
user	1.255.0.100	ftpuser1	3
Path:	\tmp\user		
user	1.255.0.102	ftpuser5	7
Path:	\tmp\backup\user		



FTP SERV table is (6 of 10) 60% full

.

5. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.







Sheet 1 of 2



Notes:

1. The *login* parameter value can contain from 1 to 15 alpha-numeric characters. The alphabetic characters can be both upper and lower case characters.

2. The *path* parameter value is a mixed-case quoted character string with a valid FTP path format that can contain up to 100 characters.

3. If the Eagle OAM IP Security Enhancement Controlled Feature is enabled and activated, the FTP servers configured in this procedure must be secure FTP servers and secure shell clients must be available. The FTP-Based Table Retrieve Application (FTRA) and the Measurements Platform must support secure shell connections to the EAGLE 5 ISS. Enter the *rtrv-ctrl-feat* command to verify whether or not the Eagle OAM IP Security Enhancement Controlled Feature is enabled and activated.

4. Because CSV measurement data files do not have unique names across multiple STPs, include the CLLI of the STP in the FTP server path for meas FTP servers.

Caution: This procedure can be used to add a USER FTP server, but any USER FTP servers entered by this procedure will be overwritten by the FTP server configuration information sent to the EAGLE 5 ISS by the FTP-Based Table Retrieve Application (FTRA). It is recommended that USER FTP servers be added at the FTRA. For more information on adding USER FTP servers at the FTRA, see the *FTP-Based Table Retrieve Application (FTRA) User Guide*.



Sheet 2 of 2

Removing an FTP Server

This procedure is used to remove an FTP server from the database using the dlt-ftp-serv command.

The dlt-ftp-serv command uses these parameters.

:app – The application of the **FTP** server. There are four values for the app parameter:

- meas The FTP servers for the Measurements Platform
- user The **FTP** servers for the **FTP** Retrieve and Replace feature.
- db The FTP server for the database backup/restore application.
- dist the FTP server for the EAGLE software release distribution application.

: ipaddr - The IP address of the FTP server.

Caution:

Removing all **FTP** servers for an application will disable the feature supported by the **FTP** servers.

1. Display the **FTP** servers in the database by entering this command.

rtrv-ftp-serv:mode=full

This is an example of the possible output.

```
rlghncxa03w 08-09-01 09:12:36 GMT EAGLE5 39.2.0
FTP Client Security: ON
```

APP		IPADI)R			LOGI	N		PRIO
db		10.20	0.50.1	02		dbus	er1		1
Pa	th:	~/eag	gle						
dist		100.2	200.50	.102	2	dbus	er1		1
Pa	th:	~/eag	gle						
meas		1.255	5.0.10	0		ftpm	eas3		3
Pa	th:	~meas	s\loca	1					
meas		1.255	5.0.10	1		ftpm	eas2		2
Pa	th:	\tmp\	measu	reme	ents	\bac	kup\da	at	
user		1.255	5.0.10	0		ftpu	ser1		3
Pa	th:	\tmp\	user						
user		1.255	5.0.10	2		ftpu	ser5		7
Pa	th:	\tmp\	backu	p\us	ser				
		+-bl-	÷~ (C	۰ <i>۴</i>	10)	C 0 %	£11		
LIL 2	ъкv	Labie	TR (D	OL	тU)	000	LULL		



2. Remove an FTP server from the database using the dlt-ftp-serv command.

For this example, enter this command.

dlt-ftp-serv:app=meas:ipaddr=1.255.0.101

When this command has successfully completed, the following message should appear.

rlghncxa03w 08-09-01 21:18:37 GMT EAGLE5 39.2.0
FTP SERV table is (5 of 10) 50% full
DLT-FTP-SERV: MASP A - COMPLTD

3. Display the changes by entering this command.

rtrv-ftp-serv:mode=full

The following is an example of the possible output.

```
rlghncxa03w 08-09-01 09:12:36 GMT EAGLE5 39.2.0
FTP Client Security: ON
```

APP IPADDR		LOGIN	PRIC	
db	10.20.50.102	dbuser1	1	
Path:	~/eagle			
dist	100.200.50.102	dbuser1	1	
Path:	~/eagle			
meas	1.255.0.100	ftpmeas3	3	
Path:	~meas\local			
user	1.255.0.100	ftpuser1	3	
Path:	\tmp\user			
user	1.255.0.102	ftpuser5	7	
Path:	\tmp\backup\user			

FTP SERV table is (5 of 10) 50% full

4. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-24 Removing an FTP Server



Changing an FTP Server

This procedure is used to change the values assigned to an **FTP** server using the chg-ftp-serv command.

The chg-ftp-serv command uses these parameters.

: app – The application of the FTP server. There are four values for the app parameter:

- meas The FTP servers for the Measurements Platform
- db The FTP server for the database backup/restore application.
- dist the FTP server for the EAGLE software release distribution application.
- user The FTP servers for the FTP Retrieve and Replace feature.

Caution:

While this procedure can be used to change a **USERFTP** server configuration, any **USERFTP** server configurations changed by this procedure will be overwritten by the **FTP** server configuration information sent to the **EAGLE** by the EAGLE **FTP** Table Base Retrieval (**FTRA**).

: ipaddr – The IP address of the FTP server.

:login – The name of the **FTP** server client.

:path – The path to the file on the **EAGLE** that is to be sent to the **FTP** server.

:prio – The priority of the FTP server, from 1 to 10.

The app and ipaddr parameters must be specified with the chg-ftp-serv command. The IP address of the FTP server cannot be changed with the chg-ftp-serv command. If you wish to change the IP address of the FTP server, the FTP server must first be removed with the Removing an FTP Server procedure, then re-entered with the new IP address using the Adding an FTP Server procedure.

The login parameter value can contain from 1 to 15 alpha-numeric characters. The alphabetic characters can be both upper and lower case characters.

The path parameter value is a mixed-case quoted character string with a valid **FTP** path format that can contain up to 100 characters.

If the login parameter value is changed, the user is prompted for a password for this **FTP** server. The password can contain from 1 to 15 alpha-numeric characters. The alphabetic characters must be both upper and lower case characters. The password is not shown on the terminal screen as it is being entered and is not shown in the rtrv-ftp-serv output.

If the Eagle OA&M IP Security Enhancement Controlled Feature is enabled and activated, the FTP servers configured in this procedure must be secure FTP servers. The EAGLE FTP Table Base Retrieval (FTRA) and the Measurements Platform must support secure shell connections to the EAGLE. Enter the rtrv-ctrl-feat command to verify whether or not the Eagle OA&M IP Security Enhancement Controlled Feature is enabled and activated.



Because CSV measurement data files do not have unique names across multiple STPs, include the CLLI of the STP in the FTP server path for meas FTP servers.

1. Display the **FTP** servers in the database by entering this command.

```
rtrv-ftp-serv:mode=full
```

This is an example of the possible output.

```
rlghncxa03w 08-09-01 09:12:36 GMT EAGLE5 39.2.0
FTP Client Security: ON
```

APP	IPADDR	LOGIN	PRIC
db	10.20.50.102	dbuser1	
Path:	~/eagle		
dist Path:	100.200.50.102 ~/eagle	dbuserl	1
meas	1.255.0.100	ftpmeas3	3
Path:	~meas\local		
meas	1.255.0.101	ftpmeas2	2
Path:	\tmp\measurement	s\backup\dat	
user	1.255.0.100	ftpuser1	3
Path:	\tmp\user		
user	1.255.0.102	ftpuser5	7
Path:	\tmp\backup\user		

FTP SERV table is (6 of 10) 60% full

2. Change the FTP server to the database using the chg-ftp-serv command.

For this example, enter this command.

chg-ftp-serv:app=meas:ipaddr=1.255.0.101:login=meas25:prio=1

When this command has successfully completed, the following message should appear.

```
rlghncxa03w 08-09-01 21:18:37 GMT EAGLE5 39.2.0
Enter Password :
   CHG-FTP-SERV: MASP A - COMPLTD
```

Note:

If the login parameter was not specified in this step, continue the procedure with 4.

3. Enter a password for the FTP server changed in 2 at the PASSWORD: prompt.

The password is not shown on the terminal screen as it is entered. The password can contain from 1 to 15 alpha-numeric characters. The alphabetic characters must be both upper and lower case characters.

4. Display the changes by entering this command.

```
rtrv-ftp-serv:mode=full
```

The following is an example of the possible output.

```
rlghncxa03w 08-09-01 09:12:36 GMT EAGLE5 39.2.0
FTP Client Security: ON
```

IPADDR	LOGIN	PRIO
10.20.50.102	dbuser1	1
100.200.50.102	dbuser1	1
~/eagle 1.255.0.100	ftpmeas3	3
~meas\local		
1.255.0.101	meas25	1
\tmp\measurement	s\backup\dat	
1.255.0.100	ftpuser1	3
\tmp\user		
1.255.0.102	ftpuser5	7
\tmp\backup\user		
	IPADDR 10.20.50.102 ~/eagle 1.00.200.50.102 ~/eagle 1.255.0.100 ~meas\local 1.255.0.101 \tmp\measurement 1.255.0.100 \tmp\user 1.255.0.102 \tmp\backup\user	<pre>IPADDR LOGIN 10.20.50.102 dbuser1 ~/eagle 100.200.50.102 dbuser1 ~/eagle 1.255.0.100 ftpmeas3 ~meas\local 1.255.0.101 meas25 \tmp\measurements\backup\dat 1.255.0.100 ftpuser1 \tmp\user 1.255.0.102 ftpuser5 \tmp\backup\user</pre>

FTP SERV table is (6 of 10) 60% full

5. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-25 Changing an FTP Server



Sheet 1 of 2


Notes:

1. The *login* parameter value can contain from 1 to 15 alpha-numeric characters. The alphabetic characters can be both upper and lower case characters.

2. The *path* parameter value is a mixed-case quoted character string with a valid FTP path format that can contain up to 100 characters.

3. If the Eagle OAM IP Security Enhancement Controlled Feature is enabled and activated, the FTP servers configured in this procedure must be secure FTP servers and secure shell clients must be available. The FTP-Based Table Retrieve Application (FTRA) and the Measurements Platform must support secure shell connections to the EAGLE 5 ISS. Enter the *rtrv-ctrl-feat* command to verify whether or not the Eagle OAM IP Security Enhancement Controlled Feature is enabled and activated.

4. Because CSV measurement data files do not have unique names across multiple STPs, include the CLLI of the STP in the FTP server path for *meas* FTP servers.

Caution: Changes to the USER FTP server configurations in this procedure may interfere with the operation of the FTP-Based Table Retrieve Application (FTRA). It is recommended that any changes to the USER FTP server configurations be made at the FTRA. For more information on making these changes at the FTRA, see the *FTP-Based Table Retrieve Application (FTRA) User Guide*.



Sheet 2 of 2

Adding an E5-IPSM

This procedure is used to add an **E5-IPSM** (**IP** Services Module), used for the **IP** User Interface feature, to the database using the ent-card command. The **E5-IPSM** provides eight **IP** based connections to the **EAGLE**'s user interface through a telnet client. As of Release 46.5, the E5-IPSM card and its functionality is replaced by the E5-ENET-B (p/n 870-2971-01) or SLIC (p/n 7094646) card. Any references to E5-IPSM and the 870-2877-01 part number should be replaced by the 46.5 and greater card and part number.

The ent-card command uses these parameters.

: loc – The location of the card being added to the database.

: t_{YPe} – The type of card being added to the database. For this procedure, the value of this parameter is i_{PSm} .

:appl - The application software that is assigned to the card. For this procedure, the value of this parameter is ips.

The **IP** User Interface (Telnet) feature is not required to be enabled and activated in order to add an **E5-IPSM**, but the **IP** User Interface (Telnet) feature must be enabled and activated so that the user can use a telnet client to establish a connection to the **EAGLE**. This can be verified with the rtrv-ctrl-feat command. To enable and activate the **IP** User Interface (Telnet) feature, go to the Activating Controlled Features procedure.

The shelf to which the card is to be added, must already be in the database. This can be verified with the rtrv-shlf command. If the shelf is not in the database, see the Adding a Shelf procedure.

If an E5-IPSM is being provisioned in this procedure, **HIPR2** cards must be installed into card locations 9 and 10 in the shelf that the E5-IPSM will occupy. If HIPR2 cards are not installed in the shelf that the E5-IPSM will occupy, the E5-IPSM will not function when the E5-IPSM is inserted into the shelf. Enter the rept-statgpl:gpl=hipr2 command to verify whether or not HIPR2 cards are installed in the same shelf as the **E5-IPSM** being provisioned in this procedure.

If the Eagle OA&M IP Security Enhancement feature is enabled and activated, shown in the rtrv-ctrl-feat output, when an E5-IPSM is installed into the EAGLE, UIM 1493, SSH Host Keys Regenerated, is displayed. UIM 1493 contains the public host key fingerprint which is used to establish a secure connection with an SSH client. If the secure connection is to be made with the FTRA, the public host key fingerprint displayed in UIM 1493 must be added to the hosts.xml file in the FTRA. Record the public host key fingerprint information displayed in UIM 1493 if a secure connection to the FTRA will be made. For more information about editing the hosts.xml file on the FTRA, see FTP Table Base Retrieval (FTRA) User's Guide.

An **IP** link must be assigned to the **E5-IPSM**. The **IP** links can be verified using the rtrv-ip-lnk command. **IP** links are configured using the chg-ip-lnk command.

After an **E5-IPSM** is configured in the database and placed into service, eight telnet terminals are configured in the database with default values for the security and output



group parameters. If you wish to change the security and output group parameter values, go to the Changing Terminal Characteristics procedure.

If a Class B IP address is specified for the ipaddr parameter of the chg-ip-lnk command, the subnet address that results from the ipaddr and submask parameter values cannot be the same as the subnet address that results from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command. The pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values can be verified by entering the rtrv-netopts command. Choose ipaddr and submask parameter values for the IP link to the E5-IPSM whose resulting subnet address is not be the same as the subnet address that resulting from the pvn and pvnmask, fcna and fcnbmask parameter values for the IP link to the E5-IPSM whose resulting subnet address is not be the same as the subnet address that resulting from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command.

The IP address of the E5-IPSM cannot be shown as the IPADDR value in the rtrvip-lnk, rtrv-ftp-serv, Or rtrv-seas-config Outputs, or the BPIPADDR value in the rtrv-ip-card Output.

The examples in this procedure are used to add an **E5-IPSM** in card location 2107.

1. Display the cards in the database using the rtrv-card command.

This is an example of the possible output.

rlghr	lC2	ka03w 07-13	3-13 09:12:	:36 GMT EAGLE5	45.0	. 0		
CARD		TYPE	APPL	LSET NAME	LINK	SLC	LSET	NAME
LINK	SI	LC						
1101		DSM	VSCCP					
1102		TSM	GLS					
1114		E5TDM-A						
1116		E5TDM-B						
1201		LIMDS0	SS7ANSI	sp2	А	0	spl	
В	0							
1202		LIMDS0	SS7ANSI	sp2	А	1	nsp3	
В	0							
1203		LIMDS0	SS7ANSI	sp3	А	0		
1204		LIMDS0	SS7ANSI	sp3	А	1		
1205		LIMDS0	SS7ANSI	itul	А	0		
1206		LIMDS0	SS7ANSI	nsp3	А	1	nsp4	
В	0							
1212		DSM	VSCCP					
1214		TSM	GLS					
1301		LIMATM	ATMANSI	lsnatml	A	0		
1303		STC	EROUTE				_	
1308		LIMDS0	SS7ANSI	sp6	A	0	sp7	
В	0	0			_	•	-	
1311	-	LIMDS0	SS7ANSI	sp2	A	2	spl	
В	T			-	- 1	1	2	
D 1	2			sp/	AL	T	sp3	
BT	2	TINDOO	COUNTER	7	7	2	F	
1312	0	LIMDSU	SS/ANS1	sp/	А	2	sps	
ы 1210	U	т тмътм	λ τη Μλαίο τ	lanatml	7	1		
⊥J⊥0 2101			RIMANOL RDOITTE	ISHALIIII	А	Т		
ムエリエ		DIC						

2103	STC	EROUTE
2105	STC	EROUTE

The cards should be distributed throughout the **EAGLE** for proper power distribution. Refer to *Installation Guide* for the shelf power distribution.

Note:

The **EAGLE** can contain a maximum of 3 **E5-IPSM**s. If the rtrvcard output shows that there are three **E5-IPSM**s in the **EAGLE**, this procedure cannot be performed.

Note:

If the card being added in this procedure is not an E5-IPSM card, continue the procedure with 3.

2. Verify that HIPR2 cards are installed in card locations 9 and 10 in the shelf that will contain the E5-IPSM card being added in this procedure. Enter this command.

rept-stat-gpl:gpl=hipr2

This is an example of the possible output.

rlghncxa	a03w 09-07-01	11:40:26 GMT	EAGLE5 41.1.0	
GPL	CARD	RUNNING	APPROVED	TRIAL
HIPR2	1109	126-002-000	126-002-000	126-003-000
HIPR2	1110	126-002-000	126-002-000	126-003-000
HIPR2	1209	126-002-000	126-002-000	126-003-000
HIPR2	1210	126-002-000	126-002-000	126-003-000
HIPR2	1309	126-002-000	126-002-000	126-003-000
HIPR2	1310	126-002-000	126-002-000	126-003-000
HIPR2	2109	126-002-000	126-002-000	126-003-000
HIPR2	2110	126-002-000	126-002-000	126-003-000
Command	Completed			

If HIPR2 cards are installed in the shelf that will contain the E5-IPSM card, continue the procedure with 3.

If HIPR2 cards are not installed on the shelf that will contain the E5-IPSM card, refer to *Installation Guide* to install the HIPR2 cards. Once the HIPR2 cards have been installed, continue the procedure with 3.

3. Install the E5-IPSM into the proper card location.

If the OA&M IP Security Enhancements feature is enabled and activated, UIM 1493, SSH Host Keys Regenerated, is displayed when the E5-IPSM is installed into the card location. UIM 1493 contains the public host key fingerprint which is used to establish a secure connection with an SSH client. If the secure connection is to be made with the FTRA, the public host key fingerprint displayed in UIM 1493 must be added to the hosts.xml file in the FTRA. Record the public host key fingerprint information displayed in UIM 1493 if a secure connection to the FTRA

will be made. For more information about editing the hosts.xml file on FTRA, see FTP Table Base Retrieval (FTRA) User's Guide.

- 4. Verify that the EAGLE has a fan unit and the fan unit is on. If the fan unit is not on, use the chg-feat:fan=on command to turn on the fan.
- 5. Add the E5-IPSM using the ent-card command.

For this example, enter this command.

ent-card:loc=2107:type=e5ipsm:appl=ips

When this command has successfully completed, these messages should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
Telnet auto-provisioning activated, 8 terminals are being added:
Telnet terminal 17 Added at location 2107.
Telnet terminal 18 Added at location 2107.
Telnet terminal 19 Added at location 2107.
Telnet terminal 20 Added at location 2107.
Telnet terminal 21 Added at location 2107.
Telnet terminal 22 Added at location 2107.
Telnet terminal 23 Added at location 2107.
Telnet terminal 24 Added at location 2107.
```

```
ENT-CARD: MASP A - COMPLTD
```

6. Verify the changes using the rtrv-card command with the card location specified in 5 .

For this example, enter this command.

rtrv-card:loc=2107

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 CARD TYPE APPL LSET NAME LINK SLC LSET NAME LINK SLC 2107 E5-IPSM IPS

 Verify that the terminals shown as added in 5 have been added by entering the rtrv-trm command.

This is an example of the possible output.

rlghr	ncxa03w	06-10-01	16:0	02:08	GMT	EAGLI	E5 3	9.0.0
TRM	TYPE	COMM		FC	ΤM	IOUT I	MXIN	V DURAL
1	VT320	9600-7-	-E-1	SW	30) !	5	99:59:59
2	KSR	9600-7-	-E-1	HW	30) !	5	INDEF
3	PRINTER	4800-7-	-E-1	HW	30) (0	00:00:00
4	VT320	2400-7-	-E-1	BOTH	30) !	5	00:30:00
5	VT320	9600-7-	-0-1	NONE	30) !	5	00:00:30
6	VT320	9600-7-	-E-2	SW	30) (9	INDEF
7	PRINTER	9600-7-	-N-2	HW	30) !	5	00:30:00
8	KSR	19200-7-	-E-2	BOTH	30) !	5	00:30:00



				_		_			_		
9	VT320)	9600-	-7-E-	-1 \$	SW	30		7	00:30:00	
10	VT320	C	9600-	-7-E-	-1 I	W	30		5	00:30:00	
11	VT320	C	4800-	-7-E-	-1 H	W	30		5	00:30:00	
12	PRINT	ΓER	9600-	-7-E-	-1 H	W	30		4	00:30:00	
13	VT320	C	9600-	-7-0-	-1 1	NONE	30		5	00:30:00	
14	VT320	C	9600-	-7-E-	-2 \$	SW	30		8	00:30:00	
15	VT320	C	9600-	-7-N-	-2 I	WH	30		5	00:30:00	
16	VT320)	9600-	-7-E-	-2 1	зотн	30		3	00:30:00	
	12020		2000				00		5		
трм	TYPE		LOC				тма	ידנוכ	MXTNV	DURAL	SECURE
17	TFLNE	γŢ	210'	7			60	501	5	00:30:00	BECOILE
10		51 747	210	, 7			60		5	00.30.00	
10		200	210	י ד			60		J E	00.30.00	
19		51 300	210	/ 7			60		5	00.30.00	
20	TELNI	51	210	/			60		5	00.30.00	
21	TELN	5T	210	/			60		5	00:30:00	
22	TELNI	ST	210	/			60		5	00:30:00	
24	TELNI	ΞT	210'	7			60		5	00:30:00	
TRM	LOGI	NTMR	LOGOU	JTTM	R PNO	GTIM	EINT	PNO	GFAILCI	T	
	(sec)	(sec)	(ms	sec)					
17	none		none		noi	ne		1			
18	none		none		noi	ne		1			
19	none		none		noi	ne		1			
20	none		none		noi	ne		1			
21	none		none		noi	ne		1			
22	none		none		noi	ne		1			
23	none		none		nor	ne		1			
2.4	none		none		noi	ne		1			
21	none		none					-			
TRM	TRAF	LINF	(SA	SYS	PU	DB	UIM	RD			
1	NO	YES	NO	YES	NO	YES	YES				
2	NO	NO	NO	NO	NO	NO	NO				
3	YES	YES	YES	NO	YES	YES	YES				
4	VFS	NO	NO	NO	NO	NO	NO				
5	NO	VFC	NO	NO	NO	NO	VFC				
5	NO	NO	VEC	NO	NO	NO	NO				
0	NU	NU	1ES	NU	NU	NU	NU				
/	ILS	ILS	ILS	ILS	ILS	ILS	ILS				
8	NO	NO	NO	NO	YES	NO	YES				
9	NO	YES	NO	NO	NO	YES	NO				
10	NO	NO	NO	NO	NO	NO	YES				
11	YES	YES	YES	YES	YES	YES	YES				
12	YES	YES	YES	YES	YES	YES	YES				
13	NO	YES	NO	NO	NO	NO	YES				
14	NO	NO	YES	NO	NO	NO	NO				
15	YES	YES	YES	NO	YES	YES	YES				
16	NO	NO	NO	NO	YES	NO	YES				
17	NO	NO	NO	NO	NO	NO	NO				
18	NO	NO	NO	NO	NO	NO	NO				
19	NO	NO	NO	NO	NO	NO	NO				
20	NO	NO	NO	NO	NO	NO	NO				
21	NO	NO	NO	NO	NO	NO	NO				
22	NO	NO	NO	NO	NO	NO	NO				
23	NO	NO	NO	NO	NO	NO	NO				
24	NO	NO	NO	NO	NO	NO	NO				
<u> </u>	110	110	110	110	T10	T10	T10				



	APP	APP									
TRM	SERV	SS	CARD	CLK	DBG	GTT	GWS	MEAS	MON	MPS	SEAS
1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
2	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
3	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
4	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	NO
5	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
б	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
7	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
8	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
11	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
12	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
13	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
16	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
18	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
19	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
20	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
21	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
22	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
23	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
24	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

To change the output parameter values or the logintmr, logouttmr, pngfailcnt, or the pngtimeint parameter values for the telnet terminals added in this procedure, perform the Changing Terminal Characteristics procedure.

After this step has been performed, continue the procedure by performing one of these steps.

- If a Class A or C **IP address** will be specified for the *ipaddr* parameter in 10, continue the procedure with 9.
- If a Class B **IP address** will be specified for the ipaddr parameter in 10, continue the procedure with 8.
- 8. The subnet address that results from the ipaddr and submask parameter values of the chg-ip-lnk command cannot be the same as the subnet address that results from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command.

Display the pvn, pvnmask, fcna, fcnamask, fcnb, and fcnbmask parameter values of the chg-netopts command by entering the rtrv-netopts command.

If error message E3967 Cmd Rej: E5IS must be on is displayed after the rtrv-netopts command is executed, the pvn, pvnmask, fcna, fcnamask, fcnb, and fcnbmaskpvn and pvnmask parameters are not configured.

This is an example of the possible output if the **E5IS** feature is on.

rlghncxa03w 09-02-28 21:17:37 GMT EAGLE5 40.1.0

ORACLE

NETWORK OPTIONS

PVN	=	128.20.30.40
PVNMASK	=	255.255.192.0
FCNA	=	170.120.50.0
FCNAMASK	=	255.255.240.0
FCNB	=	170.121.50.0
FCNBMASK	=	255.255.254.0

Choose ipaddr and submask parameter values for the **IP** link to the **E5-IPSM** whose resulting subnet address is not be the same as the subnet address that resulting from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command. Continue the procedure with 9.

9. Display the **IP** link data assigned to the **E5-IPSM** using the rtrv-ip-lnk command with the **E5-IPSM**'s location and the port=a parameter.

For this example, enter this command.

rtrv-ip-lnk:loc=2107:port=a

The following is an example of the possible output.

rlghı	ncxa03w	06-10-01	21:20:37	GMT	EAGLE5	36	.0.0		
LOC	PORT	IPADDR	SU	BMASH	ζ.		DUPLEX	SPEED	MACTYPE
AUTO	MCAST								
2107	А						HALF	10	DIX
NO	NO								

10. Assign an **IP** link to the **E5-IPSM** using the chg-ip-lnk command with these parameters: loc, port=a, ipaddr, submask, speed=100, duplex=full.

For this example, enter this command.

```
chg-ip-
lnk:loc=2107:port=a:ipaddr=150.1.1.1:submask=255.255.255.0:sp
eed=100:duplex=full
```

Note:

If either the ipaddr or submask parameters are specified, then both parameters must be specified, unless the ipaddr=0.0.0.0 parameter is specified, then the submask parameter is not required. The ipaddr=0.0.0.0 parameter disables the **IP** link.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:20:37 GMT EAGLE5 36.0.0
CHG-IP-LNK: MASP A - COMPLTD
```

11. Verify the changes made in 10 using the rtrv-ip-lnk command and specifying the card location and port values used in 10.



For this example, enter this command.

rtrv-ip-lnk:loc=2107:port=a

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:20:37 GMT EAGLE5 36.0.0 LOC PORT IPADDR SUBMASK DUPLEX SPEED MACTYPE AUTO MCAST 2107 A 150.1.1.1 255.255.255.0 FULL 100 DIX NO NO

12. Display the current IP host information in the database by entering the rtrv-ip-host command with the IP address of the IP link shown in 11.

For this example, enter this command.

rtrv-ip-host:ipaddr=150.1.1.1

No **IP** address and **IP** host entry is displayed, as shown in the following example.

rlghncxa03w 07-13-13 09:12:36 GMT EAGLE5 45.0.0

No matching entries found

IP Host table is (2 of 4096) <1% full

13. Assign an IP host to the E5-IPSM using the ent-ip-host command.

For this example, enter this command.

ent-ip-host:host=ip.nc.tekelec.com:ipaddr=150.1.1.1

When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:18:37 GMT EAGLE5 36.0.0 ENT-IP-HOST: MASP A - COMPLTD

14. Display the IP card attributes of the E5-IPSM using the rtrv-ip-card command specifying the E5-IPSM's location.

For this example, enter this command.

rtrv-ip-card:loc=2107

The following is an example of the possible output.

rlghncxa03w 08-06-01 21:20:37 GMT EAGLE5 39.0.0 LOC 2107 SRCHORDR SRVR DNSA -----DNSB -----DEFROUTER -----DOMAIN ------SCTPCSUM crc32c



```
BPIPADDR -----
BPSUBMASK -----
```

15. Change the **IP** card attributes of the **E5-IPSM** using the chg-ip-card command with these values: **E5-IPSM** card location, local search order, domain, and the default router for the **E5-IPSM**.

For this example, enter this command.

```
chg-ip-
card:loc=2107:srchordr=local:domain=ip.nc.tekelec.com:defrout
er=150.1.1.250
```

The following is an example of the possible output.



The network portion of the default router's **IP** address (defrouter) must be the same as the network portion of the **IP** address specified in the chg-ip-lnk (7) and ent-ip-host (11) commands. The value of the last octet of the default router's **IP** address must be from 1 to 254.

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:20:37 GMT EAGLE5 36.0.0
CHG-IP-CARD: MASP A - COMPLTD
```

16. Verify the changes made in 15 using the rtrv-ip-card command specifying the E5-IPSM's location.

For this example, enter this command.

rtrv-ip-card:loc=2107

The following is an example of the possible output.

```
rlghncxa03w 08-06-01 21:20:37 GMT EAGLE5 39.0.0
LOC 2107
SRCHORDR LOCAL
DNSA -----
DNSB -----
DEFROUTER 150.1.1.250
DOMAIN ip.nc.tekelec.com
SCTPCSUM crc32c
BPIPADDR ------
BPSUBMASK -----
```

17. Verify that the **IP** User Interface (Telnet) feature is enabled and turned on, and if secure connections to the **EAGLE** are to be used, verify that the **OA**&M **IP** Security Enhancements feature is enabled and activated by entering the rtrvctrl-feat command.



This is an example of the possible output.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:
Feature Name Partnum Status Quantity
Telnet 893005701 off ----
```

Note:

The rtrv-ctrl-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-ctrl-feat command, see the rtrv-ctrl-feat command description in *Commands User's Guide*.

If the IP User Interface (Telnet) feature is enabled and turned on (status = on), continue the procedure with 18.

If the **IP** User Interface (Telnet) feature is not enabled or turned on, perform the Activating Controlled Features procedure to enable and turn on the **IP** User Interface (Telnet) feature.

If **UIM** 1493 was displayed when the **E5-IPSM** was installed in 3, the OA&M **IP** Security Enhancements feature is enabled and turned on. If the OA&M **IP** Security Enhancements feature is enabled and turned on (shown by the entry EAGLE OA&M IP Security in the rtrv-ctrl-feat output with the status = on), continue the procedure with 18.

If the **OA**&M **IP** Security Enhancements feature is not enabled or turned on, and secure connections are to the **EAGLE** are to be used, perform the Activating the EAGLE OA&M IP Security Enhancement Controlled Feature procedure to enable and turn on the OA&M **IP** Security Enhancements feature.

18. Place the **E5-IPSM** into service using the rst-card specifying the location of the **E5-IPSM**.

For this example, enter this command.

rst-card:loc=2107

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:20:37 GMT EAGLE5 36.0.0
Card has been allowed.
```

If the OA&M IP Security Enhancements feature is enabled and activated, UIM 1494, SSH Host Keys Loaded, is displayed. UIM 1494 contains the public host key fingerprint which is used to establish a secure connection with an SSH client. If the secure connection is to be made with the FTRA, the public host key fingerprint displayed in UIM 1494 must be added to the hosts.xml file in the FTRA. If the public host key fingerprint was not recorded in 3, record the public host key fingerprint information displayed in UIM 1494 if a secure connection to the FTRA will be made. For more information about editing the hosts.xml file on the FTRA, see FTP Table Base Retrieval (FTRA) User's Guide.



19. Put the terminals that were created when the E5-IPSM was added in 5 into service with the rst-trm command. For this example, enter these commands.

```
rst-trm:trm=17
rst-trm:trm=18
rst-trm:trm=19
rst-trm:trm=20
rst-trm:trm=21
rst-trm:trm=22
rst-trm:trm=23
rst-trm:trm=24
```

This message should appear when each of these commands have successfully completed.

rlghncxa03w 07-05-01 15:08:45 GMT EAGLE5 37.0.0
Allow message sent to terminal

rlghncxa03w 07-05-01 15:08:45 GMT EAGLE5 37.0.0 Command Completed.

 Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-26 Adding an E5-IPSM



Sheet 1 of 6





Sheet 2 of 6







Sheet 3 of 6







Sheet 4 of 6





Sheet 5 of 6





Sheet 6 of 6

Removing an E5-IPSM

This procedure is used to remove an **E5-IPSM (IP** Services Module - a card running the *ips* application) from the database using the *dlt-card* command.

Note:

As of Release 46.5, the E5-IPSM card and its functionality is replaced by the E5-ENET-B (p/n 870-2971-01) or SLIC (p/n 7094646) card. Any references to E5-IPSM and the 870-2877-01 part number should be replaced by the 46.5 and greater card and part number.

Caution:

If the **E5-IPSM** is the last **E5-IPSM** in service, removing this card from the database will disable the **IP** User Interface (Telnet) feature.

All terminals associated with the **E5-IPSM** being removed must be out of service. The terminals are displayed using the rtrv-trm command. The state of the terminals is displayed using the rept-stat-trm command.

The examples in this procedure are used to remove the **E5-IPSM** in card location 2107.

Canceling the REPT-STAT-CARD Command

Because the rept-stat-card command used in this procedure can output information for a long period of time, the rept-stat-card command can be canceled and the output to the terminal stopped. There are three ways that the rept-stat-card command can be canceled.

- Press the F9 function key on the keyboard at the terminal where the rept-statcard command was entered.
- Enter the canc-cmd without the trm parameter at the terminal where the reptstat-card command was entered.
- Enter the canc-cmd:trm=<xx>, where <xx> is the terminal where the reptstat-card command was entered, from another terminal other that the terminal where the rept-stat-card command was entered. To enter the canc-cmd:trm=<xx> command, the terminal must allow Security Administration commands to be entered from it and the user must be allowed to enter Security Administration commands. The terminal's permissions can be verified with the rtrv-secu-trm command. The user's permissions can be verified with the rtrv-user Of rtrv-secu-user commands.

For more information about the canc-cmd command, go to Commands User's Guide.

1. Display the cards in the database using the rtrv-card command.



This is an example of the possible output.

rlghn	cxa03w 13-0	7-01 09:12	:36 GMT EAGLE5	45.0	.0		
CARD	TYPE	APPL	LSET NAME	LINK	SLC	LSET	NAME
LINK S	SLC						
1101	DSM	VSCCP					
1102	TSM	GLS					
1113	E5MCAP	OAMHC					
1114	E5TDM-A						
1115	E5MCAP	OAMHC					
1116	E5TDM-B						
1117	E5MDAL						
1201	LIMDS0	SS7ANSI	sp2	А	0	spl	
В	C						
1202	LIMDS0	SS7ANSI	sp2	А	1	nsp3	
В	C						
1203	LIMDS0	SS7ANSI	sp3	А	0		
1204	LIMDS0	SS7ANSI	sp3	А	1		
1205	LIMDS0	SS7ANSI	itul	А	0		
1206	LIMDS0	SS7ANSI	nsp3	A	1	nsp4	
В	C						
1212	DSM	VSCCP					
1214	TSM	GLS					
1301	LIMATM	ATMANSI	lsnatml	А	0		
1303	STC	EROUTE					
1308	LIMDS0	SS7ANSI	sрб	А	0	sp7	
В	C						
1311	LIMDS0	SS7ANSI	sp2	А	2	spl	
В	1						
			sp7	A1	1	sp3	
B1 :	2						
1315	LIMDS0	SS7ANSI	sp7	А	2	sp5	
В	C						
1318	LIMATM	ATMANSI	lsnatml	A	1		
2101	STC	EROUTE					
2103	STC	EROUTE					
2105	STC	EROUTE					
2107	IPSM	IPS					
2108	IPSM	IPS					
2111	IPSM	IPS					

An **E5-IPSM** is identified by the entries E5-IPSM in the TYPE field and IPS in the APPL field.

2. Display the status of the **E5-IPSM** being removed from the database with the rept-stat-card command and specifying the card location of the **E5-IPSM**.

For this example, enter this command.

rept-stat-card:loc=2107

This is an example of the possible output.

rlghncxa03w 06-10-01 16:43:42 GMT EAGLE5 36.0.0



CARD	VERSION	TYPE	GPL	PST	SST
AST 2107	114-001-000	IPSM	IPS	IS-NR	Active
ALAR BPDC IMT IMT	M STATUS M GPL BUS A BUS B	= No Ala = 002-12 = Conn = Conn	rms. 2-000		
Comman	d Completed.				

If the **IPSM** is out of service, shown by the entry OOS-MT-DSBLD in the PST column, skip steps 3 through 5, and go to step 6.

3. Display the terminals using the rtrv-trm command.

This is an example of the possible output.

rlgh	ncxa03w (06-10-01 16:0	2:08 G	MT EAGI	LE5 39	.0.0	
TRM	TYPE	COMM	FC	TMOUT	MXINV	DURAL	
1	VT320	9600-7-E-1	SW	30	5	99:59:59	
2	KSR	9600-7-E-1	HW	30	5	INDEF	
3	PRINTER	4800-7-E-1	HW	30	0	00:00:00	
4	VT320	2400-7-E-1	BOTH	30	5	00:30:00	
5	VT320	9600-7-0-1	NONE	30	5	00:00:30	
б	VT320	9600-7-E-2	SW	30	9	INDEF	
7	PRINTER	9600-7-N-2	HW	30	5	00:30:00	
8	KSR	19200-7-E-2	BOTH	30	5	00:30:00	
9	VT320	9600-7-E-1	SW	30	7	00:30:00	
10	VT320	9600-7-E-1	HW	30	5	00:30:00	
11	VT320	4800-7-E-1	HW	30	5	00:30:00	
12	PRINTER	9600-7-E-1	HW	30	4	00:30:00	
13	VT320	9600-7-0-1	NONE	30	5	00:30:00	
14	VT320	9600-7-E-2	SW	30	8	00:30:00	
15	VT320	9600-7-N-2	HW	30	5	00:30:00	
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00	
TRM	TYPE	LOC		TMOUT	MXINV	DURAL	SECURE
17	TELNET	2107		60	5	00:30:00	yes
18	SEAS	2107		60	5	00:30:00	yes
19	TELNET	2107		60	5	00:30:00	yes
20	TELNET	2107		60	5	00:30:00	yes
21	TELNET	2107		60	5	00:30:00	yes
22	TELNET	2107		60	5	00:30:00	yes
23	TELNET	2107		60	5	00:30:00	yes
24	TELNET	2107		60	5	00:30:00	yes
25	TELNET	2108		60	5	00:30:00	yes
26	TELNET	2108		60	5	00:30:00	yes
27	SEAS	2108		60	5	00:30:00	yes
28	TELNET	2108		60	5	00:30:00	yes
29	TELNET	2108		60	5	00:30:00	yes
30	TELNET	2108		60	5	00:30:00	yes
31	TELNET	2108		60	5	00:30:00	yes
32	TELNET	2108		60	5	00:30:00	yes

33	TELNI	ΞT	2111	1			60	5		00:	30:00	yes
34	TELNI	ΞT	2111	1			60	5		00:	30:00	yes
35	TELNI	ΞT	211	1			60	5		00:	30:00	yes
36	TELNI	ΞT	211	1			60	5		00:	30:00	yes
37	TELNI	ΞT	211	1			60	5		00:	30:00	yes
38	TELNI	ΞT	211	1			60	5		00:	30:00	- yes
39	TELNI	ΞT	211	1			60	5		00:	30:00	ves
40	TELNI	 T	211	1			60	5		00:	30:00	ves
								-				1
TRM	LOGII	NTMR	LOGOU	UTTMI	R PN	GTIM	EINT	PNGF	AILCI	T		
	(sec)	(sec)	(m:	sec)		-	-			
17	none		none		noi	ne		1				
19	none		none		noi	ne		1				
20	none		none		noi	ne		1				
21	none		none		noi	ne		1				
22	none		none		noi	ne		1				
23	none		none		noi	ne		1				
24	none		none		noi	ne		1				
25	none		none		noi	ne		1				
26	none		none		noi	ne		1				
28	none		none		noi	ne		1				
29	none		none		noi	ne		1				
30	none		none		noi	ne		1				
31	none		none		noi	ne		1				
32	none		none		noi	ne		1				
32	none		none		noi	ne		1				
34	none		none		noi	ne		1				
35	none		none		noi			1				
36	none		none		noi	ne		1				
30	none		none		noi			1				
38	none		none		noi			1				
20	none		none		noi	ne		1				
40	none		none		noi	ne		1				
10	none		none		1101	.10		1				
трм	TR∆F	T.TNI	K SA	SYS	DII	DR	TITM	מא				
1	NO	YES	NO	YES	NO	YES	VES					
2	NO	NO	NO	NO	NO	NO	NO					
2	110	110	110	110	110	110	110					
•												
•												
30	NO	NO	NO	NO	NO	NO	NO					
10	NO	NO	NO	NO	NO	NO	NO					
40	NO	NO	INO	INO	INO	INO	NO					
	ממא	ממג										
ארדיידי	APP OEDV	APP			סחח	amm	aua	MEAC	MONT	MDO	CEAC	
1 RM	SERV	22	VEQ	VEQ	DBG	UTO	GWS	MEAS	MON	MPS	SEAS	
1	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	ILS	NO	
2	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	
•												
•												
•												
39	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	
40	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	

4. Display the status of the terminals by entering the rept-stat-trm command.

.0

This is an example of the possible output.

rlghno	cxa03w	06-10-01	15:08:45	GMT	EAGLE5	36.0
TRM	PST		SST		AST	
1	IS-NR		Active			
2	IS-NR		Active			
3	IS-NR		Active			
4	IS-NR		Active			
5	IS-NR		Active			
б	IS-NR		Active			
7	IS-NR		Active			
8	IS-NR		Active			
9	IS-NR		Active			
10	IS-NR		Active			
11	IS-NR		Active			
12	IS-NR		Active			
13	IS-NR		Active			
14	IS-NR		Active			
15	IS-NR		Active			
16	IS-NR		Active			
17	IS-NR		Active			
18	IS-NR		Active			
19	IS-NR		Active			
20	IS-NR		Active			
21	IS-NR		Active			
22	IS-NR		Active			
23	IS-NR		Active			
24	IS-NR		Active			
25	IS-NR		Active			
26	IS-NR		Active			
27	IS-NR		Active			
28	IS-NR		Active			
29	IS-NR		Active			
30	IS-NR		Active			
31	IS-NR		Active			
32	IS-NR		Active			
33	IS-NR		Active			
34	IS-NR		Active			
35	IS-NR		Active			
36	IS-NR		Active			
37	IS-NR		Active			
38	IS-NR		Active			
39	IS-NR		Active			
40	IS-NR		Active			

Command Completed.

Note:

If all the terminals associated with the **E5-IPSM** being removed from the database are out of service, shown by the entry **OOS-MT-DSBLD** in the **PST** column, skip step 5, and go to step 6.



5. Place the terminals associated with the **E5-IPSM** being removed out of service using the rmv-trm command.

For this example, enter these commands.

```
rmv-trm:trm=17
rmv-trm:trm=18
rmv-trm:trm=19
rmv-trm:trm=20
rmv-trm:trm=21
rmv-trm:trm=22
rmv-trm:trm=23
rmv-trm:trm=24
```

Note:

If the E5-IPSM that will be removed in this procedure contains the last in-service SEAS terminal, the force=yes parameter must be specified with the rmv-trm command for that SEAS terminal.

Caution:

Placing these terminals out of service will disable any Telnet sessions running on these terminals.

If the status of any terminals associated with the **E5-IPSM** being removed shown in the PST field in step 4 is **OOS-MT-DSBLD** (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Inhibit message sent to terminal

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.
```

6. Place the **E5-IPSM** out of service using the rmv-card command, specifying the card location of the E5-IPSM.

For this example, enter this command.

```
rmv-card:loc=2107
```



When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
Card has been inhibited.

7. Remove the card using the dlt-card command.

The dlt-card command has only one parameter, loc, which is the location of the card. For this example, enter these commands.

dlt-card:loc=2107



If the E5-IPSM that was removed in this step contains a SEAS terminal, the entry for that SEAS terminal is removed from the SEAS over IP configuration and is not shown in the rtrv-seas-config output. This message is displayed after the dlt-card command has been entered.

Invalidating the Terminal data in SEASCFG Table

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
DLT-CARD: MASP A - COMPLTD

8. Verify the changes using the rtrv-card command specifying the card that was removed in step 7.

For this example, enter these commands.

rtrv-card:loc=2107

When this command has successfully completed, this message should appear.

E2144 Cmd Rej: Location invalid for hardware configuration

 Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```



Figure 4-27 Removing an IPSM





Sheet 1 of 2







Sheet 2 of 2

Configuring the Options for the Network Security Enhancements Feature

This procedure is used to configure the **EAGLE** to enhance its network security by discarding messages that should not be received. Four options are set using the chg-stpopts command to support this feature.

- SECMTPSID The EAGLE should not receive a message where the OPC is equal to the EAGLE's own true, secondary or capability point codes.
- **SECMTPMATE** The **EAGLE** should not receive a message with the true, secondary, or capability point code of the mate **STP** other than across the C link.
- SECMTPSNM the EAGLE should not receive an MTP network management message unless:
 - The **OPC** is an adjacent point code
 - The EAGLE has a route to the OPC of the MTP network management message on the linkset which the message was received.
 - The EAGLE has a route to the destination field in the message (if applicable to the concerned message) on the linkset which the message was received.
- SECMTPSCMG the EAGLE should not receive an SCCP network management message unless:
 - The EAGLE has a route to the OPC of the SCMG message on the linkset, on which the message was received.
 - The EAGLE has a route to the affected point code in the message on the linkset on which the message was received.

This option will only apply to **SSP** and **SOR** messages. This feature will not affect the following messages: **SSA**, **SST**, **SOG**, **SBR**, **SNR** and **SRT**.

Each of these options have four values which determine how the **EAGLE** handles the messages controlled by the options.

- **NOTIFY** The specified option is active and **UIMs** are generated.
- SILENT The specified option is active, but no UIMs are generated.
- TEST The specified option is not active, but UIMS are generated as if the option was active.
- **OFF** The specified option is not active.

The system default value for each of these options is OFF.

To set these options, the Network Security Enhancements feature must be enabled and activated. This can be verified with the rtrv-ctrl-feat command. To enable and activate the Network Security Enhancements feature, go to the Activating Controlled Features procedure.

If the Network Security Enhancements feature is not enabled and activated, the Network Security Enhancement options are not displayed in the rtrv-stpopts output.



When the Network Security Enhancements feature is enabled and activated for the first time, each option is displayed in the rtrv-stpopts output with the system default value (**OFF**). When the Network Security Enhancements feature is enabled and activated after the feature was disabled, each option is displayed in the rtrv-stpopts output with the value that the option was assigned when the feature was disabled.

1. Display the Network Security Enhancements options using the rtrv-stpopts command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0

STP OPTIONS

SECMTPSID notify

SECMTPMATE test

SECMTPSNM silent

SECMTPSCMG off
```

Note:

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

Note:

If the Network Security Enhancement options are shown in the rtrvstpopts output in step 1, skip step 2, and go to step 3.

2. Verify that the Network Security Enhancements feature is enabled and activated, by entering the rtrv-ctrl-feat command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:
Feature Name Partnum Status Quantity
Network Security Enhance 893009101 off ----
```

Note:

The rtrv-ctrl-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-ctrl-feat command, see the rtrv-ctrl-feat command description in *Commands User's Guide*.



If the Network Security Enhancements feature is not enabled or activated, go to the Activating Controlled Features procedure and enable and activate the Network Security Enhancements feature.

Caution:

If the Network Security Enhancements feature is temporarily enabled, the Network Security Enhancement options can be set and used only for the amount of time shown in the Trial Period Left column in the rtrv-ctrl-feat output.

3. Change the Network Security Enhancement options.

For this example, enter this command.

```
chq-
stpopts:secmtpsid=silent:secmtpmate=notify :secmtpsnm=notify:
secmtpscmg=notify
```

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 00:22:57 GMT EAGLE5 36.0.0 CHG-STPOPTS: MASP A - COMPLTD

4. Verify the changes using the rtrv-stpopts command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0
STP OPTIONS
_____
SECMTPSID
              silent
SECMTPMATE
             notify
SECMTPSNM
              notify
SECMTPSCMG
```

notify

Note:

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in Commands User's Guide.

5. Back up the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk


complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure 4-28 Configuring the Options for the Network Security Enhancements Feature



Configuring the Restore Device State Option

This procedure is used to configure the restore device state option using the chgstpopts command with the rstrdev value for the on or off parameters of the chg-stpopts command. The system default value is off.

If the value of the restore device state option is off (off=rstrdev), the EAGLE does not retain the manually initiated state (for example, **OOS-MT-DSBLD**) for the signaling links, TCP/IP data links, cards, or the terminals after either the init-sys command is executed, or when a MASP role change occurs (the active MASP becomes the standby MASP and the standby MASP becomes the active MASP). After the initsys command executes, the EAGLE attempts to bring all provisioned links, cards, and terminals on line, including those that were previously out of service. You will need to manually put each device back into its previous state after the EAGLE is back on line. If the init-sys command is being executed, it is advisable to print or electronically capture the output of the EAGLE's rept-stat-slk, rept-stat-dlk, rept-stat-card, and rept-stat-trm commands for reference before issuing the init-sys command. During a MASP role change, current processing for the role change occurs and the state of the out-of-service devices may change. To restore a device to its previous state, issue the appropriate inhibit/deactivate command listed in Commands User's Guide in the Related Commands section for each of the above rept-stat commands.

If the value of the restore device state option is on (on=rstrdev), the state the signaling links, TCP/IP data links, cards, and terminals is not changed after the initsys command is executed or a MASP role change occurs. No manual intervention is required to put the device back into its previous state after the EAGLE is back on line.

If the restore device state option is on and the database is being restored with the chg-db:action=restore command, the state of the cards, SS7 signaling links, TCP/IP data links, and terminals before the chg-db:action=restore and initsys commands are performed will not be maintained after these commands are performed. The persistent device state table becomes obsolete and is disabled. **UIM** 1257 is generated.

rlghncxa03w 06-10-01 16:07:48 GMT EAGLE5 36.0.0 1234.1257 SYSTEM INFO DB Restore has cleared and disabled PDS

1. Display the existing values for the restore device state parameter by entering the rtrv-stpopts command.

The value for the restore device state parameter is shown in the RSTRDEV field. This is an example of the possible output.

rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0 STP OPTIONS -----RSTRDEV off



Note:

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

2. Change the restore device state parameter.

To change the *rstrdev* parameter to on, enter this command.

chg-stpopts:on=rstrdev

To change the *rstrdev* parameter to off, enter this command.

chg-stpopts:off=rstrdev

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 00:22:57 GMT EAGLE5 36.0.0 CHG-STPOPTS: MASP A - COMPLTD

3. Verify the changes using the rtrv-stpopts command.

If the on=rstrdev parameter was specified in 2, this is an example of the possible output.

rlghncxa03w 10-07-17 16:02:05 GMT EAGLE5 42.0.0 STP OPTIONS ------RSTRDEV on

If the off=rstrdev parameter was specified in 2, this is an example of the possible output.

```
rlghncxa03w 10-07-17 16:02:05 GMT EAGLE5 42.0.0
STP OPTIONS
------
RSTRDEV off
```

Note:

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

 Backup the new changes using the chgdb:action=backup:dest=fixedcommand.



These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-29 Configuring the Restore Device State Option



Adding an Entry to the Frame Power Alarm Threshold Table

This procedure is used to add an entry to the frame power alarm threshold table. The frame power alarm threshold table defines the power level threshold, in amps, for each frame in the **EAGLE**. The power level threshold determines when alarms regarding the amount of power used by the frame are generated. Three alarms can be generated for the power levels.

- **UAM** 0522 a minor alarm indicating that the power level for the frame has reached 90% of the threshold value.
- **UAM** 0521 a major alarm indicating that the power level for the frame has reached 95% of the threshold value.
- **UAM** 0520 a critical alarm indicating that the power level for the frame has reached 98% of the threshold value.

More information on these alarms is shown in *Unsolicited Alarm and Information Messages Reference*.

The power alarm threshold table for each frame is configured using the ent-frm-pwr command with these parameters:

: frm – The name of the frame being added to the power alarm threshold table, cf00, ef00, ef01, ef02, ef03, or ef04.

:thrshld – The power threshold value, from 30 to 65 amps.

The frame being added in this procedure must be configured in the database. This can be verified by displaying the shelves in the **EAGLE** with the rtrv-shlf command. The number assigned to each configured frame is shown in the SHELF FRAME column of the rtrv-shlf output. Table 4-6 shows the name of each frame used in the Frame Power **Alarm** Threshold table and the corresponding frame number shown in the SHELF FRAME column of the rtrv-shlf output.

Name of the Frame in the Frame Power Alarm Threshold Table	Frame Numbers shown in the Shelf Frame Column of the RTRV-SHLF Output
CF00	1
EF00	2
EF01	3
EF02	4
EF03	5
EF04	6

 Table 4-6
 Frame Power Alarm Threshold Table Frame Designations

The thrshld parameter is optional. If the thrshld parameter value is not specified, the thrshld value is set to 30.

1. Display the frame power alarm thresholds by entering the rtrv-frm-pwr command.

This is an example of the possible output



rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0

Frame	Power	Threshold	(Amps)
cf00			56
ef00			36

```
FRAME POWER THRESHOLD table is (2 of 10) 20% full;
RTRV-FRM-PWR: MASP A - COMPLTD
```

2. Display the shelves configured in the database by entering the rtrv-shlf command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
SHELF DISPLAY
FRAME SHELF
                   TYPE
 1
        1
                CONTROL
 1
        2
                EXTENSION
        3
  1
                EXTENSION
  2
        1
                EXTENSION
  2
        2
                EXTENSION
  2
        3
                EXTENSION
  3
        1
                EXTENSION
```

To add an entry to the Frame Power **Alarm** Threshold table, the frame must be shown in the rtrv-shlf output. Table 4-6 shows the name of the frames used in the Frame Power **Alarm** Threshold table and the corresponding frame numbers shown in the SHELF FRAME column of the rtrv-shlf output.

If the frame you wish to add to the Frame Power **Alarm** Threshold table is shown in the rtrv-shlf output, go to step 3.

If all the frames shown in the rtrv-shlf output are shown in the rtrv-frm-pwr output, the only actions that can be taken is to either remove an entry from the Frame Power **Alarm** Threshold table, or to change an entry in the Frame Power **Alarm** Threshold table. To remove an entry from the Frame Power **Alarm** Threshold table, perform the Removing an Entry from the Frame Power **Alarm** Threshold Table procedure. To change an entry in the Frame Power **Alarm** Threshold table, perform the Changing an Entry in the Frame Power **Alarm** Threshold table, perform the Changing an Entry in the Frame Power Alarm Threshold Table procedure. If you do not wish to perform either of these actions, this procedure is finished.

3. Display the power consumption of the frame that will be added to the Frame Power **Alarm** Threshold table by entering the rtrv-stp command with these parameters:

display=power
frm =<frame to be added>
For this example, enter this command.



```
rtrv-stp:display=power:frm=ef01
```

This is an example of the possible output.

rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0

	Power Threshold		Power Consumption	
Frame	(Amps) (Watts)	(Amps)	(Watts)
EF01	+30	+1440	14.06	675

Card		Part Number	Revision	Power C (MilliAmps)	onsumption
(Watt	cs)			· _ /	
3101		870-1293-13	D	313	15
3102		870-1293-13	D	313	15
3103		870-2671-03	М	1563	75
3104		870-1293-13	D	313	
15					
3105		870-2061-01	K	542	26
3106		870-1984-13	М	646	31
3107		870-1984-13	М	646	31
3108		870-2372-14	J	521	25
3109		MUX		313	15
3110		MUX		313	15
3111		870-2061-01	A	542	26
3112		870-2061-01	A	542	26
3113		850-0549-01	A	+ 313	+ 15
3114	+	870-2198-07	М	+ 1563	+ 75
3115		850-0549-01	A	313	15
3116	+	870-2198-07	М	1563	75
3117		870-1293-13	В	521	25
FAN A	ASSYs	Power Consumpti	lon	2604	125

Command Completed.

4. Add the entry to the Frame Power **Alarm** Threshold table by entering the entfrm-pwr command with these parameters.

frm =<frame to be added>

thrshld=<frame power threshold level>

A minor alarm (**UAM** 0522) is generated when the power level for the frame reaches 90% of the threshold value. A major alarm (**UAM** 0521) is generated when the power level for the frame reaches 95% of the threshold value. A critical alarm (**UAM** 0520) is generated when the power level for the frame reaches 98% of the threshold value.

The thrshld parameter is optional. If the thrshld parameter value is not specified, the thrshld value is set to 30.

For this example, enter this command.

ent-frm-pwr:frm=ef01:thrshld=35



When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 00:22:57 GMT EAGLE5 36.0.0
FRAME POWER THRESHOLD table is (3 of 10) 30% full
ENT-FRM-PWR: MASP A - COMPLTD
```

5. Verify the changes by entering the rtrv-frm-pwr command with frame entry specified in step 4.

For this example, enter this command.

rtrv-frm-pwr:frm=ef01

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 Frame Power Threshold (Amps)

		-
ef01	3	5

FRAME POWER THRESHOLD table is (3 of 10) 30% full; RTRV-FRM-PWR: MASP A - COMPLTD

 Backup the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-30 Adding an Entry to the Frame Power Alarm Threshold Table



Sheet 1 of 2



Notes:



1. The following list shows the frame designations are used in the Frame Power Alarm Threshold tabl and the frame numbers shown in the *SHELF FRAM* column of the *rtrv-shlf* output that correspond to the frame designations.

Frame Designations	Frame Numbers
CF00	1
EF00	2
EF01	3
EF02	4
EF03	5
EF04	6

The frame designation shown in this list is the valu the *frm* parameter of the *rtrv-stp*, *ent-frm-pwr*, and *frm-pwr* commands.

2. A minor alarm is generated when the power leve the frame reaches 90% of the threshold value.

A major alarm is generated when the power level f the frame reaches 95% of the threshold value. A critical alarm is generated when the power level

the frame reaches 98% of the threshold value.

3. The *thrshld* parameter is optional. If the *thrshld* parameter value is not specified, the *thrshld* value to 30.

Sheet 2 of 2

Removing an Entry from the Frame Power Alarm Threshold Table

This procedure is used to remove an existing entry from the frame power alarm threshold table. The entry in the power alarm threshold table is removed using the dlt-frm-pwr command with this parameter:

: frm – The name of the frame being removed from the power alarm threshold table, cf00, ef01, ef02, ef03, or ef04.

The frame being removed from the frame power alarm threshold table must be configured in the frame power alarm threshold table.

When a frame entry is removed, a default threshold setting of 30 amps is assigned to the frame. If the amount of power currently used by the frame is 27 amps or more, an alarm will be generated when this frame entry is removed. The alarm that will be generated will depend of the amount of power the frame is using.

- A minor alarm (**UAM** 0522) is generated when the power level for the frame reaches 90% of the threshold value.
- A major alarm (UAM 0521) is generated when the power level for the frame reaches 95% of the threshold value.
- A critical alarm (**UAM** 0520) is generated when the power level for the frame reaches 98% of the threshold value.

More information on these alarms is shown in *Unsolicited Alarm and Information Messages Reference*.

For example, if the frame is using 27 amps, and the frame is removed resulting in the default 30 amp threshold, minor alarm 0522 is generated because 27 amps is the threshold at which minor alarm 0522 is generated (90% of 30 amps is 27 amps).

If the frame is using 30 amps or more, and the frame is removed resulting in the default 30 amp threshold, critical alarm 0520 is generated because that amount of power used by the frame is 100% or more of the threshold value, and a critical alarm is generated at 98% of the threshold value.

The power being used by the frame is displayed in the Power Consumption (Amps) column in the rtrv-stp output.

1. Display the frame power alarm thresholds by entering the rtrv-frm-pwr command.

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0

Frame	Power	Threshold	(Amps)
cf00			56
ef00			36



35

ef01

FRAME POWER THRESHOLD table is (3 of 10) 30% full; RTRV-FRM-PWR: MASP A - COMPLTD

2. Display the power consumption of the frame that will be removed from the Frame Power **Alarm** Threshold table by entering the rtrv-stp command with these parameters:

display=power

frm =<frame to be removed from step 1>

rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0

For this example, enter this command.

rtrv-stp:display=power:frm=ef01

This is an example of the possible output.

Frama	Power Thre	eshold Watta	Power Cons	sumption
·	(Allips) (walls)	(Allips)	(Walls)
EF01	35	1440	14.06	675

Power Consumption Card Part Number Revision (MilliAmps) (Watts) ____ _____ _____ _____ 15 870-1293-13 D 313 3101 3102 870-1293-13 D 313 15 3103 870-2671-03 М 1563 75 3104 870-1293-13 D 313 15 3105 870-2061-01 Κ 542 26 М 31 3106 870-1984-13 646 3107 870-1984-13 М 646 31 3108 870-2372-14 J 521 25 3109 313 15 MUX 3110 MUX 313 15 3111 870-2061-01 А 542 26 3112 870-2061-01 А 542 26 + 313 3113 850-0549-01 А 15 75 3114 + 870-2198-07 М + 1563 + 3115 Α 15 850-0549-01 313 + 870-2198-07 75 3116 М 1563 3117 870-1293-13 В 521 25 FAN ASSYs Power Consumption 2604 125 Command Completed.

When a frame entry is removed, a default threshold setting of 30 amps is assigned to the frame. If the amount of power currently used by the frame is 27 amps or more, shown in the Power Consumption (Amps) column in the rtrv-stp



output, an alarm will be generated when this frame entry is removed. The alarm that will be generated will depend of the amount of power the frame is using. See the introduction to this procedure for the alarm information.

If you still wish to remove this frame entry even if an alarm will be generated, go to step 3. If you do not wish to remove this frame entry, repeat this step with another frame entry from step 1.

If you do not wish to repeat this step with another frame entry from step 1, this procedure is finished.

3. Remove the frame entry from the Frame Power **Alarm** Threshold table by entering the dlt-frm-pwr command with this parameter.

frm =<frame to be removed>

For this example, enter this command.

dlt-frm-pwr:frm=ef01

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 00:22:57 GMT EAGLE5 36.0.0 FRAME POWER THRESHOLD table is (2 of 10) 20% full DLT-FRM-PWR: MASP A - COMPLTD

4. Verify the changes by entering the rtrv-frm-pwr command with frame entry specified in step 3.

For this example, enter this command.

rtrv-frm-pwr:frm=ef01

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0

Frame	Power	Threshold	(Amps)
ef01			35

FRAME POWER THRESHOLD table is (2 of 10) 20% full; RTRV-FRM-PWR: MASP A - COMPLTD

5. Backup the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```





Figure 4-31 Removing an Entry from the Frame Power Alarm Threshold Table



Sheet 1 of 2





Sheet 2 of 2

Changing an Entry in the Frame Power Alarm Threshold Table

This procedure is used to change an existing entry in the frame power alarm threshold table. The frame entry in the power alarm threshold table is changed using the chg-frm-pwr command with these parameters:

: frm – The name of the frame being added to the power alarm threshold table, cf00, ef00, ef01, ef02, ef03, or ef04.

:thrshld – The power threshold value, from 30 to 65 amps.

The frame power alarm threshold table defines the power level threshold, in amps, for each frame in the **EAGLE**. The power level threshold determines when alarms regarding the amount power used by the frame are generated. Three alarms can be generated for the power levels.

- **UAM** 0522 a minor alarm indicating that the power level for the frame has reached 90% of the threshold value.
- **UAM** 0521 a major alarm indicating that the power level for the frame has reached 95% of the threshold value.
- **UAM** 0520 a critical alarm indicating that the power level for the frame has reached 98% of the threshold value.

More information on these alarms is shown in *Unsolicited Alarm and Information Messages Reference*.

When setting the threshold value (the thrshld parameter value), the threshold value should be greater than the amount of power being used by the frame. The power being used by the frame is displayed in the Power Consumption (Amps) column in the rtrv-stp output. The threshold value should also be high enough to avoid generating any alarms.

Table 4-7 shows selected threshold values and the power levels for a frame that would generate a minor alarm for that threshold value.

Threshold Value	Power Level to Generate a Minor Alarm
30	27
35	31.5
40	36
45	40.5
50	45
55	49.5
60	54
65	58.5

Table 4-7 Power Level to Generate a Minor Alarm



1. Display the frame power alarm thresholds by entering the rtrv-frm-pwr command.

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0

Frame	Power Threshold (Amps)	
cf00	56	
ef00	36	
ef01	35	

FRAME POWER THRESHOLD table is (3 of 10) 30% full; RTRV-FRM-PWR: MASP A - COMPLTD

2. Display the power consumption of the frame that will be changed in the Frame Power Alarm Threshold table by entering the rtrv-stp command with these parameters:

display=power

frm =<frame being changed>

For this example, enter this command.

rtrv-stp:display=power:frm=ef01

This is an example of the possible output.

	Power	Threshold	Power Con	sumption
Frame	(Amps)	(Watts)	(Amps)	(Watts)
EF01	30	1440	14.06	675

		Power Cons	er Consumption	
Part Number	Revision	(MilliAmps)		
870-1293-13	D	313	15	
870-1293-13	D	313	15	
870-2671-03	М	1563	75	
870-1293-13	D	313		
870-2061-01	K	542	26	
870-1984-13	М	646	31	
870-1984-13	М	646	31	
870-2372-14	J	521	25	
MUX		313	15	
MUX		313	15	
870-2061-01	А	542	26	
870-2061-01	А	542	26	
850-0549-01	А	+ 313	+ 15	
	Part Number 	Part Number Revision 870-1293-13 D 870-1293-13 D 870-2671-03 M 870-1293-13 D 870-2061-01 K 870-1984-13 M 870-2372-14 J MUX MUX 870-2061-01 A 870-2061-01 A 870-2061-01 A	Part Number Revision (MilliAmps) 870-1293-13 D 313 870-1293-13 D 313 870-2671-03 M 1563 870-1293-13 D 313 870-2061-01 K 542 870-1984-13 M 646 870-2372-14 J 521 MUX 313 870-2061-01 A 542 542 870-2061-01 A 542 542 870-2061-01 A 542 313	

rlghncxa03w 06-10-01 16:02:05 GMT EAGLE5 36.0.0

3114 3115 3116 3117	+ +	870-2198-07 850-0549-01 870-2198-07 870-1293-13	M A M B	+ 1563 313 1563 521	+ 75 15 75 25
FAN AS Comman	SYs d Co	Power Consumption	n	2604	125

3. Changed the entry in the Frame Power **Alarm** Threshold table by entering the chg-frm-pwr command with these parameters.

frm =<frame being changed>

thrshld=<frame power threshold level>

A minor alarm (**UAM** 0522) is generated when the power level for the frame reaches 90% of the threshold value. A major alarm (**UAM** 0521) is generated when the power level for the frame reaches 95% of the threshold value. A critical alarm (**UAM** 0520) is generated when the power level for the frame reaches 98% of the threshold value. When setting the threshold value, the threshold value should be greater that the Power Consumption (Amps) value shown in the rtrv-stp output in step 2, and high enough to avoid generating any alarms. See Table 4-7 for some examples of threshold values and the power levels for a frame to generate a minor alarm for these threshold values.

For this example, enter this command.

ent-frm-pwr:frm=ef01:thrshld=45

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 00:22:57 GMT EAGLE5 36.0.0 FRAME POWER THRESHOLD table is (3 of 10) 30% full ENT-FRM-PWR: MASP A - COMPLTD

4. Verify the changes by entering the rtrv-frm-pwr command with frame entry specified in step 3.

For this example, enter this command.

rtrv-frm-pwr:frm=ef01

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0

Frame	Power	Threshold	(Amps)
ef01			45

FRAME POWER THRESHOLD table is (3 of 10) 30% full; RTRV-FRM-PWR: MASP A - COMPLTD

 Backup the new changes using the chgdb:action=backup:dest=fixedcommand.



These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



65



Figure 4-32 Changing an Entry in the Frame Power Alarm Threshold Table

A major alarm is generated when the power level reaches 95% of the threshold value. A critical alarm is generated when the power leve reaches 98% of the threshold value. The following list shows selected threshold values levels for a frame that would generate a minor ala threshold value. Threshold Value Power Level to Generate 30 27 31.5 35 40 36 45 40.5 50 45 55 49.5 60 54

58.5



Configuring the IMT Bus Alarm Thresholds

This procedure is used to change the IMT bus alarm thresholds using the chg-th-alm command and these parameters.

:imtbusutllvll – The percentage for the IMT bus combined utilization level 1 threshold alarm (reported on the IMT system). The percentage for the IMT bus combined utilization level 1 threshold alarm, from 35 to 70 and is shown in the IMT Bus Combined Utilization Alarm Level 1 field of the rtrv-th-alm output. The system default value is 70. When this threshold is exceeded, **UAM** 0027 is generated.

:imtbusutllvl2 - The percentage for the IMT bus combined utilization level 2 threshold alarm (reported on the IMT system). The percentage for the IMT bus combined utilization level 2 threshold alarm, from 40 to 80 and is shown in the IMT Bus Combined Utilization Alarm Level 2 field of the rtrv-th-alm output. The system default value is 80. When this threshold is exceeded, UAM 0028 is generated.

After the chg-th-alm command is performed, the imtbusutllvl2 parameter value must be greater than the imtbusutllvl1 parameter value.

:imtcongestlvll – The percentage for the IMT bus congestion level 1 threshold alarm (reported on the HIPR2 card). The percentage for the IMT bus congestion level 1 threshold alarm, from 35 to 70 and is shown in the IMT Bus Congestion Alarm Level 1 field of the rtrv-th-alm output. The system default value is 70. When this threshold is exceeded, **UAM** 0030 is generated.

:imtcongestlvl2 - The percentage for the IMT bus congestion level 2 threshold alarm (reported on the HIPR2 card). The percentage for the IMT bus congestion level 2 threshold alarm, from 40 to 80 and is shown in the IMT Bus Congestion Alarm Level 2 field of the rtrv-th-alm output. The system default value is 80. When this threshold is exceeded, UAM 0031 is generated.

After the chg-th-alm command is performed, the imtcongestlvl2 parameter value must be greater than the imtcongestlvl1 parameter value.

For more information on these alarms, refer to *Unsolicited Alarm and Information Messages Reference*.

The chg-th-alm command contains other optional parameters. These parameters are not shown here because they are not necessary to configure the IMT bus alarm thresholds. These parameters are explained in more detail in *Commands User's Guide*.

 Display the current IMT bus alarm thresholds in the database by entering thertrv-th-alm command. This is an example of the possible output.

rlghncxa03w 09-07-28 09:12:36 GMT EAGLE5 41.1.0 IMT Bus Combined Utilization Alarm Level 1: 70% IMT Bus Compestion Alarm Level 1: 70% IMT Bus Congestion Alarm Level 1: 70% IMT Bus Congestion Alarm Level 2: 80% RTRV-TH-ALM: MASP A - COMPLTD.



Note:

The rtrv-th-alm command output contains other fields that are not used in this procedure. If you wish to see all the fields displayed by the rtrv-th-alm command, refer to the rtrv-th-alm command description in *Commands User's Guide*.

2. Configure the IMT bus alarm thresholds by entering the chg-th-alm command with at least one of the IMT bus alarm threshold parameters.

If an IMT bus alarm threshold parameter is not specified with the chg-th-alm command, that parameter value will not be changed. The system default values for the IMT bus alarm threshold parameters are:

- imtbusutllvl1 70
- imtbusutllvl2 80
- imtcongestlvl1 70
- imtcongestlvl2 80.

After the chg-th-alm command is performed, the imtbusutllvl2 parameter value must be greater than the imtbusutllvl1 parameter value, and the imtcongestlvl2 parameter value must be greater than the imtcongestlvl1 parameter value.

For this example, enter this command.

```
chg-th-
alm:imtbusutllvl1=50:imtcongestlvl1=50:imtbusutllvl2=70:imtco
ngestlvl1=70
```

When this command has successfully completed, this message should appear.

rlghncxa03w 09-07-28 09:12:36 GMT EAGLE5 41.1.0 CHG-TH-ALM: MASP A - COMPLTD

3. Verify the changes using the rtrv-th-alm command. This is an example of the possible output.

rlghncxa03w 09-07-28 09:12:36 GMT EAGLE5 41.1.0 IMT Bus Combined Utilization Alarm Level 1: 50% IMT Bus Congestion Alarm Level 1: 50% IMT Bus Congestion Alarm Level 1: 50% IMT Bus Congestion Alarm Level 2: 60% RTRV-TH-ALM: MASP A - COMPLTD.



Note:

The rtrv-th-alm command output contains other fields that are not used in this procedure. If you wish to see all the fields displayed by the rtrv-th-alm command, refer to the rtrv-th-alm command description in *Commands User's Guide*.

4. Backup the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-33 Configuring the IMT Bus Alarm Thresholds

Notes:

1. If any parameter is not specified with the *chg-th-alm* command, that parameter value will not be changed.

imtbusutllvl2 - 80

2. The system default values for the parameters used in this procedure are:

imtbusutllvl1 – 70

imtcongestlvl1 - 70 imtcongestlvl2 - 80.

3. After the *chg-th-alm* command is performed, the *imtbusutllvl2* parameter value must be greater than the *imtbusutllvl1* parameter value.

4. After the *chg-th-alm* command is performed, the *imtcongestlvl2* parameter value must be greater than the *imtcongestlvl1* parameter value.



Configuring the Integrated Measurements Feature

This procedure is used to configure **IP** communications links between the EAGLE and the customer's network and enable the Integrated Measurements feature on the EAGLE using these commands.

- ent-ip-host Configuring the IP host of the E5-MCAP.
- chg-ip-card Configuring the IP address of the E5-MCAP.
- chg-ip-lnk Configuring the IP link assigned to the E5-MCAP.
- chg-measopts Enabling the measurement collection option for the E5-MCAP card option.
- enable-ctrl-feat Enabling the Integrated Measurements feature.
- chg-ctrl-feat Turning the Integrated Measurements feature on.

Some of these commands contain parameters that are not used in this procedure. *Commands User's Guide* contains a full description of these commands.

The Integrated Measurements feature requires measurements **FTP** servers. A maximum of three measurements FTP servers can be configured with one of these procedures.

- Adding an FTP Server
- Changing an FTP Server

This procedure can be performed only on EAGLEs that contain E5-based control cards. Refer to Maintenance and Administration Subsystem for more information about the control cards.

The Integrated Measurements feature is enabled using the enable-ctrl-feat command with these parameters.

: fak – The feature access key provided by Oracle.

:partnum – The Oracle-issued part number of the Integrated Measurements feature, 893037301.

Once this feature is enabled, it is permanently enabled. This feature cannot be enabled with a temporary feature access key.

The enable-ctrl-feat command requires that the database contain a valid serial number for the EAGLE, and that this serial number is locked. This can be verified with the rtrv-serial-num command. The EAGLE is shipped with a serial number in the database, but the serial number is not locked. The serial number can be changed, if necessary, and locked once the EAGLE is on-site, with the ent-serial-num command. The ent-serial-num command uses these parameters.

:serial – The serial number assigned to the EAGLE. The serial number is not case sensitive.

: lock – Specifies whether or not the serial number is locked. This parameter has only one value, yes, which locks the serial number. Once the serial number is locked, it cannot be changed.



Note:

To enter and lock the EAGLE serial number, the ent-serial-num command must be entered twice, once to add the correct serial number to the database with the serial parameter, then again with the serial and the lock=yes parameters to lock the serial number. Verify that the serial number in the database is correct before locking the serial number. The serial number can be found on a label affixed to the control shelf (shelf 1100).

Once the Integrated Measurements feature has been enabled, the Integrated Measurements feature must be turned on with the chg-ctrl-feat command. The chg-ctrl-feat command uses these parameters:

:partnum – The Oracle-issued part number of the Integrated Measurements feature, 893037301.

:status=on – used to turn the Integrated Measurements feature on.

Once the Integrated Measurements feature has been turned on, it be cannot be turned off.

The status of the Integrated Measurements feature is shown with the rtrv-ctrl-feat command.

If a Class B IP address is specified for the ipaddr parameter of the chg-ip-lnk command, the subnet address that results from the ipaddr and submask parameter values cannot be the same as the subnet address that results from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command. The pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values can be verified by entering the rtrv-netopts command. Choose ipaddr and submask parameter values for the IP address assigned to the E5-MCAP card whose resulting subnet address is not be the same as the subnet address that resulting from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command.

The Integrated Measurements feature supports the collection and reporting of all measurement entities for EAGLEs configured with a maximum of 2400 signaling links (or 1200 links if the 15-minute measurements feature is turned on) using the E5-MCAP cards instead of the MCPM. The enhanced reporting capabilities provided by the Integrated Measurements feature support the generation of text file measurements reports in the CSV format. The reports can be sent to a customer-provided FTP server on-demand or on a scheduled basis. EAGLEs with more than 2400/1200 signaling links require the Measurements Platform for full measurements support.

1. Display the status of the controlled features by entering the rtrv-ctrl-feat command. The following is an example of the possible output.

rlghncxa03w 10-04-28 21:15:37 GMT EAGLE5 42.0.0
The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
Command Class Management	893005801	on	
LNP Short Message Service	893006601	on	



Intermed GTT Load Sharing	893006901	on	
XGTT Table Expansion	893006101	on	400000
XMAP Table Expansion	893007710	off	
Large System # Links	893005910	on	2000
Routesets	893006401	on	6000
HC-MIM SLK Capacity	893012707	on	64

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the Integrated Measurements feature is enabled and turned on, continue the procedure with 21.

If the Integrated Measurements feature is enabled but not turned on, continue the procedure with 19.

If the Integrated Measurements feature is not enabled, continue the procedure with 2.

2. Display the control cards in the EAGLE by entering this command.

rtrv-stp:gpl=oamhc

This is an example of the possible output.

rlghncxa03w 10-04-01 16:07:48 GMT EAGLE5 42.0.0

Card	Part Number	Rev	Serial Number	Туре	DB	APPL	GPL
Versi	on						
1113	870-2903-01	С	10206255064	E5MCAP	4096M	OAMHC	
132-03	18-000						
1115	870-2903-01	С	10206255165	E5MCAP	4096M	OAMHC	
132-03	18-000						

Command Completed.

To enable the Integrated Measurements feature, E5-MCAP cards must be installed in card locations 1113 and 1115. If E5-MCAP cards are not shown in either card location 1113 or 1115, install the E5-MCAP cards in card locations 1113 or 1115 as required. Contact the Customer Care Center before installing the E5-MCAP cards. Refer to the My Oracle Support (MOS) section for the contact information.

After the E5-MCAP cards have been installed, or if E5-MCAP cards are shown in card locations 1113 and 1115 in the rtrv-stp output, continue the procedure by performing one of these steps.



- If the rtrv-ctrl-feat output shows the HC-MIM SLK Capacity feature with a quantity of 64 and other features, continue the procedure with 7.
- If the rtrv-ctrl-feat output shows only the **HC-MIMSLK** Capacity feature with a quantity of 64, continue the procedure with 3.
- 3. Display the serial number in the database with the rtrv-serial-num command. This is an example of the possible output.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
System serial number = nt00001231
System serial number is not locked.
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
Command Completed

Note:

If the serial number is not correct and not locked, continue the procedure with 4If the serial number is correct and locked, continue the procedure with 7. If the serial number is correct but not locked, continue the procedure with 6. If the serial number is not correct, but is locked, this feature cannot be enabled and the remainder of this procedure cannot be performed. Contact the Customer Care Center to get an incorrect and locked serial number changed. Refer to My Oracle Support (MOS) for the contact information. The serial number can be found on a label affixed to the control shelf (shelf 1100).

4. Enter the correct serial number into the database using the ent-serial-num command with the serial parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's correct serial number>

When this command has successfully completed, the following message should appear.

rlghncxa03w 10-04-28 21:15:37 GMT EAGLE5 42.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD

5. Verify that the serial number entered into 4 was entered correctly using the rtrvserial-num command. This is an example of the possible output.

rlghncxa03w 10-04-28 21:15:37 GMT EAGLE5 42.0.0 System serial number = nt00001231

System serial number is not locked.



rlghncxa03w 10-04-28 21:15:37 GMT EAGLE5 42.0.0 Command Completed

If the serial number was not entered correctly, repeat 4 and 5 and re-enter the correct serial number.

6. Lock the serial number in the database by entering the ent-serial-num command with the serial number shown in 3, if the serial number shown in 3 is correct, or with the serial number shown in 5, if the serial number was changed in 4, and with the lock=yes parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's serial number>:lock=yes

When this command has successfully completed, the following message should appear.

rlghncxa03w 10-04-28 21:15:37 GMT EAGLE5 42.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD

If the IP address for the E5-MCAP cards will be either a Class A or Class C IP address, continue the procedure with 8.

If the IP address for either E5-MCAP card will be a Class B IP address, continue the procedure with 7.

7. The subnet address that results from the ipaddr and submask parameter values of the chg-ip-lnk command cannot be the same as the subnet address that results from the pvn and pvnmask, fcna and fcnamask, or fcnb and fcnbmask parameter values of the chg-netopts command.

Display the pvn, pvnmask, fcna, fcnamask, fcnb, and fcnbmask parameter values of the chg-netopts command by entering the rtrv-netoptscommand.

If error message E3967 Cmd Rej: E5IS must be on is displayed after the rtrv-netopts command is executed, the pvn, pvnmask, fcna, fcnamask, fcnb, and fcnbmask parameters are not configured. Continue the procedure with 8.

This is an example of the possible output if the **E5IS** feature is on.

rlghncxa03w 10-04-28 21:17:37 GMT EAGLE5 42.0.0 NETWORK OPTIONS ------PVN = 128.20.30.40 PVNMASK = 255.255.192.0 FCNA = 170.120.50.0 FCNAMASK = 255.255.240.0 FCNB = 170.121.50.0 FCNBMASK = 255.255.254.0

Choose ipaddr and submask parameter values for the **IP** link to the **MCPM** whose resulting subnet address is not be the same as the subnet address that resulting from the pvn and pvnmask, fcna and fcnamask, or fcnb



and fcnbmask parameter values of the chg-netopts command. Continue the procedure with 8.

8. Display the IP link information for both E5-MCAP cards by entering these commands.

rtrv-ip-lnk:loc=1113

The following is an example of the possible output.

```
rlghncxa03w 10-04-01 21:20:37 GMT EAGLE5 42.0.0
LOC
    PORT IPADDR
                   SUBMASK
                             DUPLEX SPEED MACTYPE
AUTO MCAST
1113 A
       ----- HALF
                                  10
                                       DIX
NO NO
1113 В
       ----- HALF 10
                                       DIX
NO
  NO
```

rtrv-ip-lnk:loc=1115

The following is an example of the possible output.

rlghr	ncxa03w	10-04-01	21:20:	37 GMT	EAGLE5	42.0.0		
LOC	PORT	IPADDR		SUBMAS	SK	DUPLEX	SPEED	MACTYPE
AUTO	MCAST							
1115	А					- HALF	10	DIX
NO	NO							
1115	В					- HALF	10	DIX
NO	NO							

9. Assign an IP link to each E5-MCAP card by entering the chg-ip-lnk command for each E5-MCAP card with these parameters: loc, port=a, ipaddr, submask, speed=100, mcast=yes, duplex=full.

For this example, enter these commands.

```
chg-ip-
lnk:loc=1113:port=a:ipaddr=150.1.1.1:submask=255.255.255.0 :s
peed=100:mcast=yes:duplex=full
```

```
chg-ip-
lnk:loc=1115:port=a:ipaddr=150.1.2.2:submask=255.255.255.0 :s
peed=100:mcast=yes:duplex=full
```

When each of these commands have successfully completed, this message should appear.

rlghncxa03w 10-04-01 21:20:37 GMT EAGLE5 42.0.0 CHG-IP-LNK: MASP A - COMPLTD

10. Display the changes for each E5-MCAP card by entering these commands.

```
rtrv-ip-lnk:loc=1113
```



The following is an example of the possible output.

```
rtrv-ip-lnk:loc=1115
```

The following is an example of the possible output.

rlghncxa03w 10-04-01 21:20:37 GMT EAGLE5 42.0.0 LOC PORT IPADDR SUBMASK DUPLEX SPEED MACTYPE AUTO MCAST 1115 A 150.1.2.2 255.255.0 FULL 100 DIX NO YES 1115 B ------ FULL 10 DIX NO NO

11. Display the current IP host information in the database by entering the rtrv-iphost:display=all command.

The following is an example of the possible output.

rlghncxa03w 07-13-13 09:12:36 GMT EAGLE5 45.0.0 LOCAL IPADDR LOCAL HOST 150.1.1.2 GW102.NC.TEKELEC.COM 150.1.1.3 GW103.NC.TEKELEC.COM REMOTE IPADDR REMOTE HOST 150.1.1.5 NCDEPTECONOMIC_DEVELOPMENT.SOUTHEASTERN_COORIDOR_ASHVL.GOV

IP Host table is (3 of 4096) <1% full

12. Assign an IP host to each E5-MCAP card by using the ent-ip-host command.

For this example, enter these commands.

ent-ip-host:host=gw100.nc.tekelec.com:ipaddr=150.1.1.1

ent-ip-host:host=gw200.nc.tekelec.com:ipaddr=150.1.2.2

When each of these commands have successfully completed, the following message should appear.

```
rlghncxa03w 10-04-01 21:18:37 GMT EAGLE5 42.0.0
ENT-IP-HOST: MASP A - COMPLTD
```



13. Display the changes for each E5-MCAP card by entering the rtrv-ip-host command with the host name specified in the **12**.

For this example, enter these commands.

rtrv-ip-host:host=gw100.nc.tekelec.com

The following is an example of the possible output.

rlghncxa03w 07-13-13 09:12:36 GMT EAGLE5 45.0.0 LOCAL IPADDR LOCAL HOST 150.1.1.1 GW100.NC.TEKELEC.COM

IP Host table is (5 of 4096) <1% full

rtrv-ip-host:host=gw200.nc.tekelec.com

The following is an example of the possible output.

rlghncxa03w 07-13-13 09:12:36 GMT EAGLE5 45.0.0 LOCAL IPADDR LOCAL HOST 150.1.2.2 GW200.NC.TEKELEC.COM

IP Host table is (5 of 4096) <1% full

 Display the IP card information associated with each E5-MCAP card by entering these commands.

rtrv-ip-card:loc=1113

The following is an example of the possible output.

rlghncxa03w 10-04-01 09:12:36 GMT EAGLE5 42.0.0 LOC 1113 SRCHORDR SRVR DNSA ------DNSB ------DEFROUTER ------DOMAIN ------SCTPCSUM crc32c BPIPADDR ------BPSUBMASK ------

rtrv-ip-card:loc=1115

The following is an example of the possible output.

rlghncxa03w 10-04-01 09:12:36 GMT EAGLE5 42.0.0 LOC 1115 SRCHORDR SRVR DNSA ------DNSB ------


```
DEFROUTER------DOMAIN-----SCTPCSUMcrc32cBPIPADDR-----BPSUBMASK------
```

15. Assign a default router to each E5-MCAP card using the chg-ip-card command with these parameters: loc, srchordr=local, domain, and defrouter.

For this example, enter these commands.

```
chg-ip-
card:loc=1113:srchordr=local:domain=nc.tekelec.com:defrouter=
150.1.1.50
```

```
chg-ip-
card:loc=1115:srchordr=local:domain=nc.tekelec.com:defrouter=
150.1.2.50
```

When each of these commands have successfully completed, the following message should appear.

```
rlghncxa03w 10-04-01 21:20:37 GMT EAGLE5 42.0.0
CHG-IP-CARD: MASP A - COMPLTD
```

16. Display the changes for each E5-MCAP card by entering these commands.

rtrv-ip-card:loc=1113

The following is an example of the possible output.

```
rlghncxa03w 10-04-01 09:12:36 GMT EAGLE5 42.0.0

LOC 1113

SRCHORDR LOCAL

DNSA ------

DNSB ------

DEFROUTER 150.1.1.50

DOMAIN nc.tekelec.com

SCTPCSUM crc32c

BPIPADDR ------

BPSUBMASK ------
```

rtrv-ip-card:loc=1115

The following is an example of the possible output.

rlghncxa03w 10-04-01 09:12:36 GMT EAGLE5 42.0.0 LOC 1115 SRCHORDR LOCAL DNSA ------DNSB ------DEFROUTER 150.1.2.50



DOMAIN nc.tekelec.com SCTPCSUM crc32c BPIPADDR -----BPSUBMASK -----

17. Display the FTP Server configuration using the rtrv-ftp-serv command.

rlghncxa03w 10-04-01 09:12:36 GMT EAGLE5 42.0.0

APP	IPADDR	LOGIN	PRIO
meas	1.255.0.100	ftpmeas3	3
Path:	~meas\local		
meas	1.255.0.101	ftpmeas2	2
Path:	mp\measurements\backup\dat		

FTP SERV table is (2 of 10) 20% full

The EAGLE allows a maximum of three measurements FTP servers (shown by the entry meas in the APP column of the rtrv-ftp-serv output). If there are less than three measurements FTP servers, perform the Adding an FTP Server procedure to add the required measurements FTP server. If there are three measurements FTP servers in the database, and you wish to change any of these measurements FTP servers, perform the Changing an FTP Server procedure.

18. Enable the Integrated Measurements feature with the enable-ctrl-feat command specifying the part number for the Integrated Measurements feature and the feature access key. Enter this command.

enable-ctrl-feat:partnum=893037301:fak=<Integrated
Measurements feature access key>

The Integrated Measurements feature cannot be enabled with a temporary feature access key.

The value for the feature access key (the fak parameter) are provided by Oracle. If you do not have the feature access key for the Integrated Measurements feature, contact your Oracle Sales Representative or Account Representative.

When the enable-crtl-feat command has successfully completed, this message should appear.

rlghncxa03w 10-04-28 21:15:37 GMT EAGLE5 42.0.0 ENABLE-CTRL-FEAT: MASP A - COMPLTD

19. Turn the Integrated Measurements feature on with the chg-ctrl-feat command specifying the part number for the Integrated Measurements feature and the status=on parameter. Enter this command.

chg-ctrl-feat:partnum=893037301:status=on



Note:

Once this feature is turned on, it cannot be turned off.

When the chg-crtl-feat command has successfully completed, this message should appear.

```
rlghncxa03w 10-04-28 21:15:37 GMT EAGLE5 42.0.0
CHG-CTRL-FEAT: MASP A - COMPLTD
```

20. Verify the changes by entering the rtrv-ctrl-featcommand with the Integrated Measurements feature part number. Enter this command.

rtrv-ctrl-feat:partnum=893037301

The following is an example of the possible output.

rlghncxa03w 10-04-28 21:15:37 GMT EAGLE5 42.0.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantityIntegrated Measurements893037301on----

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

21. Verify whether or nor the Integrated Measurement collection option for the E5-MCAP card is turned on (OAMHCMEAS = on) using the rtrv-measopts command.

rlghncxa03w 10-04-01 16:02:05 GMT EAGLE5 42.0.0
PLATFORMENABLE = on
OAMHCMEAS = off

Note:

The rtrv-measopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-measopts command, see the rtrv-measopts command description in *Commands User's Guide*.



If the OAMHCMEAS value is on, continue the procedure with 24.

If the OAMHCMEAS value is on, continue the procedure with 22.

22. Turn on the Integrated Measurement collection option for the E5-MCAP card by entering this command.

chg-measopts:oamhcmeas=on

Once this option is turned on, it cannot be turned off.

If more than 700 signaling links are provisioned, the scheduled UI measurement reports are disabled. The number of signaling links that are provisioned is shown in the rtrv-slk or rtrv-tbl-capacity outputs.

If the PLATFORMENABLE option is set to on before this command is executed, these actions occur after the command is executed.

All of the historical measurements data on the MCPM is transferred to the E5-MCAP card. The data transfer provides continuity of data within the Measurements Subsystem and takes approximately 30 minutes to complete. UIM 1170 is displayed when the transfer has completed. The status of the transfer is shown in the AST field of the rept-stat-card output for the active E5-MCAP card. The value in the AST field shows a value that represents the percentage of the measurements data that has been transferred. When the value in the AST field is 100%, the data transfer is complete.

Note:

The transition of MEAS from the OAM to the MCPM and the other way around may disrupt the MEAS collection process during the transition period. It is possible to observe incorrect measurement reports during measurement cycles covering the transition period.

• The PLATFORMENABLE option will be set to off.

When the ${\tt chg-measopts}$ command has successfully completed, this message should appear.

rlghncxa03w 10-04-01 00:22:57 GMT EAGLE5 42.0.0 CHG-MEASOPTS: MASP A - COMPLTD

23. Verify the changes by entering the rtrv-measopts command.

```
rlghncxa03w 10-04-01 16:02:05 GMT EAGLE5 42.0.0
PLATFORMENABLE = off
OAMHCMEAS = on
```



Note:

The rtrv-measopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-measopts command, see the rtrv-measopts command description in *Commands User's Guide*.

24. Verify that measurement collection is on or off using the rtrv-meas-sched command.

This is an example of the possible output. The ${\tt COLLECT}$ field shows whether measurement collection is on or off.

```
rlghncxa03w 10-04-01 12:22:55 GMT EAGLE5 42.0.0
COLLECT = off
```

Note:

The rtrv-meas-sched command output contains other fields that are not used in this procedure. Refer to the rtrv-meas-sched command description in *Commands User's Guide* to see these fields.

- If measurement collection is off, continue the procedure with 25.
- If measurement collection is on, continue this procedure with 27.
- 25. Turn measurement collection on by entering this command.

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

When this command has successfully completed, this message should appear.

rlghncxa03w 10-04-01 00:22:57 GMT EAGLE5 42.0.0 CHG-MEAS: MASP A - COMPLTD

26. Verify the changes by entering the rtrv-meas-sched command.

This is an example of the possible output.

```
rlghncxa03w 10-04-01 12:22:55 GMT EAGLE5 42.0.0
COLLECT = on
```



Note:

The rtrv-meas-sched command output contains other fields that are not used in this procedure. Refer to the rtrv-meas-sched command description in *Commands User's Guide* to see these fields.

27. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 4-34 Configuring the Integrated Measurements Feature

Note: If the *rtrv-ctrl-feat* output shows only the HC-MIM SLK Capacity feature with a quantity of 64, the answer to this question is no and the Eagle 5 ISS's serial number must be verified. This is the default entry for the *rtrv-ctrl-feat* output. This entry is shown whether or not the Eagle 5 ISS's serial number is in the database.

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Sheet 4 of 4

Configuring the MFC Option

This procedure is used to configure the option for the EAGLE to use Message Flow Control (MFC) to control the traffic in the EAGLE instead of Group Ticket Voucher (TVG). EAGLE Release 46.2 and later require MFC be turned on. This option is configured with chg-stpopts command using these parameters.

• on=mfc - turns the MFC option on. When the MFC option is turned on, Message Flow Control controls the traffic in the EAGLE.

Note:

When turning on MFC, the following cards are not supported from EAGLE Release 44.0 or later, except during migration to the B-series cards:

- DCM card (870-1945-xx)
- DSM card (870-1984-xx)
- EDCM card (870-2372-xx) used for STC functionality
- EDCM-A card (870-2508-xx) used for STC functionality

Note:

A loss in MSU traffic may occur while running bi-directional traffic at 700 MSUs per second, 272 bytes on an E1-ATM or LIM-ATM card after GTT, while two STC cards are active.

Note:

If another chg-stpopts:on=mfc or chg-stpopts:off=mfc command is issued within 10 seconds, the second command is rejected.

1. Enter the rtrv-stpopts command to display the existing value for the MFC option. The value for the MFC option is shown in the MFC field. This is an example of the possible output.



Command Completed.

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

2. Turn the MFC option on by entering this command.

chg-stpopts:on=mfc

When this command has successfully completed, this message should appear.

rlghncxa03w 10-12-07 00:22:57 GMT EAGLE5 43.0.0 CHG-STPOPTS: MASP A - COMPLTD

3. Verify the changes using the rtrv-stpopts command. This is an example of the possible output.

```
rlghncxa03w 10-12-17 16:02:05 GMT EAGLE5 43.0.0
STP OPTIONS
------
MFC on
```

Command Completed.

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

4. Back up the new changes using the chg-db:action=backup:dest=fixed command. These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.







5 SEAS Over IP Configuration Procedures

Chapter 5, SEAS Over IP Configuration Procedures, describes the procedures used to configure the SEAS over IP feature.

Introduction

The **SEAS** over **IP** feature is a **TCP**/IP-based interface for SEAS that creates a path between the EAGLE and the **CCS MR** (Common Channel Signaling Message Router). The CCS MR is a stand-alone, self-contained system developed by Telcordia that provides a centralized mechanism for routing **CCS** network operations traffic between **STP**s/**SCP**s and existing and new **OS**s.

One of the eight telnet terminals on the E5-IPSM is used to provide the connection from the EAGLE and the CCS MR. This terminal is referred to as a SEAS terminal.

Note:

As of Release 46.5, the E5-IPSM card and its functionality is replaced by the E5-ENET-B (p/n 870-2971-01) or SLIC (p/n 7094646) card. Any references to E5-IPSM and the 870-2877-01 part number should be replaced by the 46.5 and greater card and part number.

The EAGLE can contain a maximum of two SEAS terminals. Only one SEAS terminal can be assigned to an E5-IPSM. The remaining seven telnet terminals on the E5-IPSM continue to provide generic IP-based services such as **Telnet** and **FTP**.

SEAS over IP Feature Configurations

The SEAS over IP feature supports three configurations"

- Dual SEAS terminals with a single CCS MR
- Dual SEAS terminals with dual CCS MRs
- One SEAS terminal with one CCS MR.

Dual SEAS Terminals with a Single CCS MR SEAS Configuration

The two SEAS terminals are connected to a single CCS MR as shown in Figure 5-1. The two SEAS terminals operate in a redundant fashion allowing a maximum of two active connections to the CCS MR. While the connection to the CCS MR is dedicated to SEAS, the other terminals on the E5-IPSM may still be used for other IP-based operations, such as Telnet and FTP, or their secure counterparts, SSH and SFTP. Different SEAS information can be transmitted and received separately over each connection to the CCS MR.





Figure 5-1 Dual SEAS Terminals with Single CCS MR SEAS Configuration

Dual SEAS Terminals with Dual CCS MRs SEAS Configuration

When the two SEAS terminals are connected to two CCS MRs, as shown in Figure 5-2, the operation of the SEAS connections is similar to the "Dual SEAS Terminals with a Single CCS MR SEAS Configuration" section with the following exceptions:

- Each SEAS terminal is configured with a connection to one of the CCS MRs.
- The pair of CCS MRs operate in a round robin manner if they each have an active connection to a SEAS terminal. When the EAGLE receives a command request from a CCS MR, the response to the command request is sent to the CCS MR on the same TCP connection that the CCS MR used to send the command request.



Figure 5-2 Dual SEAS Terminals with Dual CCS MRs SEAS Configuration

Simplex SEAS Terminal Operation

With the simplex SEAS terminal operation, there is only one SEAS terminal connected to one CCS MR. There are no redundant connections to the CCS MR and this configuration is intended to serve as a restricted mode of operation until another SEAS terminal is returned to service. The simplex mode of operation is not recommended as a standard mode of operation for the SEAS over IP feature.

- All SEAS information is transmitted over this single IP connection to the CCS MR.
- The SEAS system will be in an IS-ANR/Restricted state while the system is in the simplex SEAS terminals operation and a major alarm, UAM 0348, is generated



for the SEAS system. Refer to *Unsolicited Alarm and Information Messages Reference* for more information on UAM 0348.



Figure 5-3 Simplex SEAS Terminal Configuration

Provisioning the SEAS over IP Feature

To provision the SEAS over IP feature, perform these steps.

- 1. Add the E5-IPSMs to the database using the ent-card command. Perform the Adding an E5-IPSM procedure.
- 2. Enable the SEAS over IP feature using the enable-ctrl-feat command. Perform the Activating the SEAS over IP Feature procedure.
- 3. Configure the SEAS connections using the chg-seas-config command. Perform the Performing the Initial SEAS Configuration procedure.
- 4. Configure the SEAS terminals using the chg-trm command. Perform the Configuring SEAS Terminals procedure.
- 5. Turn the SEAS over IP feature on using the chg-ctrl-feat command. Perform the Activating the SEAS over IP Feature procedure.

Activating the SEAS over IP Feature

This procedure is used to enable and turn on the SEAS over IP feature using the feature's part number and a feature access key.

The feature access key is based on the feature's part number and the serial number of the **EAGLE**, making the feature access key site-specific.

The enable-ctrl-feat command enables the feature by inputting the feature's access key and the feature's part number with these parameters:

: fak – The feature access key provided by Oracle.

:partnum – The Oracle-issued part number of the SEAS over IP feature, 893018801.

Once this feature is enabled, it is permanently enabled. This feature cannot be enabled with a temporary feature access key.

The Telnet feature (IP User Interface), part number 893005701, must be enabled and turned on before the SEAS over IP feature can be enabled. Perform the Activating Controlled Features procedure to enable and turn on the Telnet feature.



Once the SEAS over IP feature has been enabled, the SEAS over IP feature must be turned on with the chg-ctrl-feat command. The chg-ctrl-feat command uses these parameters:

:partnum – The Oracle-issued part number of the SEAS over IP feature, 893018801.

:status=on – used to turn the SEAS over IP feature on.

Note:

To turn the SEAS over IP feature on in step 5, these items must be provisioned in the database.

- The seasclli value must be provisioned.
- The IP address and port for at least one connection must be provisioned.
- At least one SEAS terminal must be provisioned.
- If the Eagle OAM IP Security Enhancement feature is enabled and turned on, the login and hname values for at least one connection must be provisioned.

If you wish to provision the EAGLE for the SEAS over IP feature at this time, perform these procedures.

- Performing the Initial SEAS Configuration
- Configuring SEAS Terminals

Once the SEAS over IP feature has been turned on, it be can be turned off. For more information on turning the SEAS over IP feature off, go to the Turning Off the SEAS Over IP Feature procedure.

The status of the SEAS over IP and Telnet features is shown with the <code>rtrv-ctrl-feat</code> command.

Caution:

When the SEAS over IP feature is turned on, and the SEAS terminals and SEAS configuration is provisioned, SEAS traffic is sent to the CCS MR using the SEAS terminals.

1. Display the status of the controlled features by entering the rtrv-ctrl-feat command.

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
HC-MIM SLK Capacity	893012707	on	64
Command Class Management	893005801	off	



LNP Short Message Service	893006601	on	
Intermed GTT Load Sharing	893006901	off	
XGTT Table Expansion	893006101	off	
XMAP Table Expansion	893007710	on	3000
Large System # Links	893005910	on	2000
Routesets	893006401	on	6000

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the SEAS over IP feature is enabled and turned on, no further action is necessary. This procedure does not need to be performed.

If the SEAS over IP feature is enabled and but not turned on, skip steps 2 and 3 and go to step 4.

If the SEAS over IP feature is not enabled, go to step 2.

 To enable the SEAS over IP feature, the Telnet feature must be enabled and turned on. The Eagle OA&M IP Security Enhancement feature can also be used with the SEAS over IP feature. If the rtrv-ctrl-feat output in step 1 shows that the Telnet and Eagle OA&M IP Security Enhancement features are enabled and turned on, skip this step and go to step 3.

If the rtrv-ctrl-feat output in step 1 shows that the Telnet is not enabled or turned on, perform the Activating Controlled Features procedure to enable and turn on the Telnet feature.

The Eagle OA&M IP Security Enhancement feature can be enabled and turned on if the Telnet feature is not enabled and turned on. After the Telnet feature is enabled, and the rtrv-ctrl-feat output shows that the Eagle OA&M IP Security Enhancement feature is enabled and turned on, go to step 3.

If the Eagle OA&M IP Security Enhancement feature is not enabled and turned on, and you do not wish to use the If the Eagle OA&M IP Security Enhancement feature with the SEAS over IP feature, go to step 3.

If the Eagle OA&M IP Security Enhancement feature is not enabled and turned on, and you wish to use the If the Eagle OA&M IP Security Enhancement feature with the SEAS over IP feature, perform the Activating the EAGLE OA&M IP Security Enhancement Controlled Feature procedure to enable and turn on the Activating the Eagle OA&M IP Security Enhancement Controlled Feature. When the Activating the Eagle OA&M IP Security Enhancement Controlled Feature is enabled and turned on, go to step 3.

3. Enable the SEAS over IP feature with the enable-ctrl-feat command specifying the part number for the SEAS over IP feature and the feature access key. Enter this command.

enable-ctrl-feat:partnum=893018801:fak=<SEAS over IP feature
access key>



Note:

The SEAS over IP feature cannot be enabled with a temporary feature access key.

Note:

The values for the feature access key (the fak parameter) are provided by Oracle. If you do not have the feature access key for the SEAS over IP feature, contact your Oracle Sales Representative or Account Representative.

When the enable-ctrl-feat command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
ENABLE-CTRL-FEAT: MASP B - COMPLTD
```

Note:

To turn the SEAS over IP feature on in step 5, these items must be provisioned in the database.

- The seasclli value must be provisioned.
- The IP address and port for at least one connection must be provisioned.
- At least one SEAS terminal must be provisioned.
- If the Eagle OAM IP Security Enhancement feature is enabled and turned on, the login and hname values for at least one connection must be provisioned.

If you wish to provision the EAGLE for the SEAS over IP feature at this time, perform these procedures.

- Performing the Initial SEAS Configuration
- Configuring SEAS Terminals

After the SEAS over IP feature provisioning has been completed, skip step 4 and go to step 5.

If you do not wish to provision the EAGLE for the SEAS over IP feature at this time, skip steps 4 and 5, and go to step 6.



Note:

If the SEAS over IP feature was enabled in this step, skip step 4 and go to step 5.

 Before the SEAS over IP feature can be turned on, the SEAS over IP feature configuration must be correct (see the third note in step 3). Display the SEAS over IP configuration by entering the rtrv-seas-config command.

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is not enabled and turned on.

rlghncxa03w	07-01-23 18:	46:01 EST EAGL	E 37.5.0	
SEASCLLI	CONNECTION	IPADDRESS	PORT	TERMINAL
TEAGLESTP001	IPMR1	192.168.25.10	2500	18
	IPMR2	192.168.25.20	2600	27

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is enabled and turned on.

tekelecstp 07- SEASCLLI	-01-23 18:46:03 AUTHMOD	1 EST EAGLE 37.5 E -	.0		
TEAGLESTP001	Password	d			
TERMINAL	CONNECTION	IPADDR	PORT	LOGIN	HNAME
 18 2	IPMR1	198.168.25.10	2500	root	abaco-
27 b	IPMR2	198.168.25.20	2600	root	abaco-

To turn this feature on in step 5, the items shown in the third note in step 3 must be provisioned. If the SEAS configuration is not correct, perform the Changing the Existing SEAS Configuration procedure to make the necessary corrections to the SEAS over IP configuration. If no SEAS terminals are shown in this step, perform the Configuring SEAS Terminals procedure to configure the SEAS terminals.

5. Turn the SEAS over IP feature on with the chg-ctrl-feat command specifying the part number for the SEAS over IP feature and the status=on parameter. Enter this command.

chg-ctrl-feat:partnum=893018801:status=on

Caution:

When the SEAS over IP feature feature is turned on, SEAS traffic is sent to the CCS MR using the SEAS terminals.



When the chg-ctrl-feat command has successfully completed, the following message should appear.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
CHG-CTRL-FEAT: MASP B - COMPLTD
```

6. Verify the changes by entering the rtrv-ctrl-feat command with the SEAS over IP feature part number. Enter this command.

rtrv-ctrl-feat:partnum=893018801

The following is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantitySEAS over IP893018801on----

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

 Backup the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 5-4 Activating the SEAS over IP Feature



Sheet 1 of 2





Sheet 2 of 2

Performing the Initial SEAS Configuration

This procedure is used to configure the connections to the CCS MR using the chg-seas-config command. This procedure is performed only when configuring the connections to the CCS MR for the first time.

The chg-seas-config command can be used to change the SEAS configuration after the connections have been configured for the first time. Perform the Changing the Existing SEAS Configuration procedure to make this type of change.

The chg-seas-config command uses these parameters.

: conn – The name of the SEAS connection, either IPMR1 or IPMR2

:seasclli – The CLLI part of node name of the EAGLE consisting of one alphabetic character and up to 15 alphanumeric characters. The seasclli value is different from the EAGLE clli value that is entered with the chg-sid command. The seasclli value must also be configured on the Telcordia Message Router (CCS MR). Refer to Telcordia Configuration Specification "Telcordia Technologies System Documentation", *BD-SNAM-ADMIN-4 Issue 14, November 2006*.

:ipaddr – The IP address of the CCS MR.

:port – The port number of the CCS MR that the EAGLE connects to, from 1024 to 5000.

:hname – The name of the remote host of the **CCS MR**, 1 to 15 alphanumeric characters.

:login – The login name of the CCS MR, 1 to 15 alphanumeric characters.

:authmode – The method of authentication used for the connection. Currently, only password authentication is used for SEAS connections, so this parameter has only one value, password. This parameter is optional and does not need to be specified.

The hname, login, and authmode parameters are used only when the Eagle OA&M IP Security feature is enabled and turned on. The values for these parameters are displayed in the rtrv-seas-config output only when the Eagle OA&M IP Security feature is enabled and turned on. The status of the Eagle OA&M IP Security feature is shown in the rtrv-ctrl-feat output.

Caution:

The IP address and port value combination for each SEAS connection must be unique or the chg-seas-config command will be rejected.

The IP address for the SEAS over IP configuration cannot be shown as the IPADDR value in the rtrv-ip-lnk or rtrv-ftp-serv outputs, or the BPIPADDR value in the rtrv-ip-card Output.

1. Verify whether or not the SEAS over IP feature is enabled by entering this command.



rtrv-ctrl-feat:partnum=893018801

This is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0
The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
SEAS over IP	893018801	off	

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the SEAS over IP feature is enabled, continue the procedure with 2.

If the SEAS over IP feature is not enabled, perform the Activating the SEAS over IP Feature procedure in this chapter to enable SEAS over IP feature. After the SEAS over IP feature has been enabled, continue the procedure with 2.

2. Display the current SEAS configuration using the rtrv-seas-config command.

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is not enabled and turned on.

	IPMR2				
	- IPMR1				
SEASCLLI	CONNECTION	IPADDRESS		PORT	TERMINAL
rlghncxa03w	07-01-23 18:	:46:01 EST	EAGLE	37.5.0	

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is enabled and turned on.

tekelecstp SEASCLLI	07-01-23 18:46: AUTHMO	01 EST EAGLE 37. DE	5.0		
TERMINAL	CONNECTION	IPADDR	PORT	LOGIN	HNAME
	t pmr 1				
	TIME				
	IPMR2				



3. Enter the SEASCLLI value by entering the chg-seas-config command with the seasclli parameter. For this example, enter this command.

chg-seas-config:seasclli=TEAGLESTP001

Note:

The SEASCLLI value is different from the CLLI value specified with the ${\tt chg-sid}$ command.

4. Verify whether or not the Eagle OA&M IP Security Enhancement feature is enabled and turned on by entering this command.

rtrv-ctrl-feat:partnum=893400001

This is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantityEAGLE OA&M IP Security893400001on----

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

- 5. Provision the first connection to the CCS MR. Enter the chg-seas-config command with these parameters:
 - :conn=ipmr1
 - :ipaddr=the IP address of the CCS MR
 - :port = the port number of the CCS MR

Caution:

The IP address and port value combination for each SEAS connection must be unique or the chg-seas-config command will be rejected.

If the Eagle OA&M IP Security Enhancement feature is enabled and turned on, these parameters must also be specified.

ORACLE

- :hname = The name of the remote host of the CCS MR.
- :login = The login name of the CCS MR.

If the Eagle OA&M IP Security Enhancement feature is not enabled and turned on, for this example, enter this command.

chg-seas-config:conn=ipmr1:ipaddr=198.168.25.10:port=2500

If the Eagle OA&M IP Security Enhancement feature is enabled and turned on, for this example, enter this command.

```
chg-seas-
config:conn=ipmr1:ipaddr=198.168.25.10:port=2500:hname=abaco-
a:login=root
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
CHG-SEAS-CONFIG: MASP A - COMPLTD
```

If the login parameter is specified with the chg-seas-config command, the Enter Password: prompt appears. When the Enter Password: prompt appears, enter the password for the login name. The length of the password is from 1 to 15 alphanumeric characters. The password is not echoed on the screen.

- 6. Provision the second connection to the CCS MR. Enter the chg-seas-config command with these parameters:
 - :conn=ipmr2
 - :ipaddr=the IP address of the CCS MR
 - :port = the port number of the CCS MR

Caution:

The IP address and port value combination for each SEAS connection must be unique or the chg-seas-config command will be rejected.

If the Eagle OA&M IP Security Enhancement feature is enabled and turned on, these parameters must also be specified.

- :hname = The name of the remote host of the CCS MR.
- :login = The login name of the CCS MR.

If the Eagle OA&M IP Security Enhancement feature is not enabled and turned on, for this example, enter this command.

```
chg-seas-config:conn=ipmr2:ipaddr=198.168.25.20:port=2600
```

If the Eagle OA&M IP Security Enhancement feature is enabled and turned on, for this example, enter this command.

```
chg-seas-
config:conn=ipmr2:ipaddr=198.168.25.20:port=2600:hname=abaco-
b:login=root
```



When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
CHG-SEAS-CONFIG: MASP A - COMPLTD
```

If the login parameter is specified with the chg-seas-config command, the Enter Password: prompt appears. When the Enter Password: prompt appears, enter the password for the login name. The length of the password is from 1 to 15 alphanumeric characters. The password is not echoed on the screen.

7. Verify the SEAS configuration using the rtrv-seas-config command.

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is not enabled and turned on.

 rlghncxa03w
 07-01-23
 18:46:01
 EST
 EAGLE
 37.5.0

 SEASCLLI
 CONNECTION
 IPADDRESS
 PORT
 TERMINAL

 ----- ----- ----- -----

 TEAGLESTP001
 IPMR1
 192.168.25.10
 2500
 18

 IPMR2
 192.168.25.20
 2600
 27

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is enabled and turned on.

tekelecstp 07 SEASCLLI	-01-23 18:46:0 AUTHMOD	1 EST EAGLE 37.5 E	.0		
TEAGLESTP001	Passwor	- d			
TERMINAL	CONNECTION	IPADDR	PORT	LOGIN	HNAME
18	IPMR1	198.168.25.10	2500	root	abaco-
a 27 b	IPMR2	198.168.25.20	2600	root	abaco-

8. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 5-5 Performing the Initial SEAS Configuration



Sheet 1 of 2





Sheet 2 of 2

Configuring SEAS Terminals

This procedure is used to configure SEAS terminals for the SEAS over IP feature. The **SEAS terminal** can be configured only on E5-IPSMs.

Note:

As of Release 46.5, the E5-IPSM card and its functionality is replaced by the E5-ENET-B (p/n 870-2971-01) or SLIC (p/n 7094646) card. Any references to E5-IPSM and the 870-2877-01 part number should be replaced by the 46.5 and greater card and part number.

The EAGLE can contain a maximum of two SEAS terminals, but only one SEAS terminal can be configured on an E5-IPSM. When an E5-IPSM is configured in the database, eight telnet terminals are created. To configure the SEAS terminal, one of these telnet terminals is changed to a SEAS terminal using the <code>chg-trm</code> command with these parameters.

:trm - The number of the telnet terminal being changed, 17 through 40

:type=seas - The SEAS terminal type.

The chg-trm command contains other parameters, but these parameters cannot be used in this procedure. For more information on these parameters, see the Changing Terminal Characteristics procedure in this manual, or the chg-trm command description in *Commands User's Guide*.

SEAS terminals can be configured only if the SEAS over IP feature is enabled. The status of the SEAS over IP feature is shown in the rtrv-ctrl-feat output. If the SEAS over IP feature is not enabled, perform the Activating the SEAS over IP Feature procedure in this chapter to enable the SEAS over IP feature.

When the SEAS terminal is configured, the value for the SEAS output group parameter is set to YES. The values for the other output group parameters and the tmout, dural, and mxinv parameters are not changed.

The other output group parameters can be changed with the specific output group parameter or the all parameter. If the all=no parameter is specified for a SEAS terminal (type=seas), all the output group values are changed to NO except for the SEAS output group. The SEAS output group value remains set to YES and this message is displayed.

SEAS Output Group is SET for SEAS terminal <terminal number>

1. Verify whether or not the SEAS over IP feature is enabled by entering this command.

rtrv-ctrl-feat:partnum=893018801


This is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0
The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
SEAS over IP	893018801	off	

The following features have been temporarily enabled:

Feature NamePartnumStatusQuantityTrialPeriod LeftZero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the SEAS over IP feature is enabled, go to step 2.

If the SEAS over IP feature is not enabled, perform the Activating the SEAS over IP Feature procedure in this chapter to enable SEAS over IP feature. After the SEAS over IP feature has been enabled, perform the Performing the Initial SEAS Configuration procedure in this chapter. After the Performing the Initial SEAS Configuration procedure has been performed, go to step 2.

2. Display the terminals in the EAGLE using the rtrv-trm command.

This is an example of the possible output.

rlghr	ncxa03w (06-10-01	16:02	2:08 GI	IT EAGI	LE5 39.	.0.0	
TRM	TYPE	COMM		FC	TMOUT	MXINV	DURAL	
1	VT320	9600-7-	-E-1	SW	30	5	99:59:59	
2	KSR	9600-7-	-E-1	HW	30	5	INDEF	
3	PRINTER	4800-7-	-E-1	HW	30	0	00:00:00	
4	VT320	2400-7-	-E-1	BOTH	30	5	00:30:00	
5	VT320	9600-7-	-0-1	NONE	30	5	00:00:30	
6	VT320	9600-7-	-E-2	SW	30	9	INDEF	
7	PRINTER	9600-7-	-N-2	HW	30	5	00:30:00	
8	KSR	19200-7-	-E-2	BOTH	30	5	00:30:00	
9	VT320	9600-7-	-E-1	SW	30	7	00:30:00	
10	VT320	9600-7-	-E-1	HW	30	5	00:30:00	
11	VT320	4800-7-	-E-1	HW	30	5	00:30:00	
12	PRINTER	9600-7-	-E-1	HW	30	4	00:30:00	
13	VT320	9600-7-	-0-1	NONE	30	5	00:30:00	
14	VT320	9600-7-	-E-2	SW	30	8	00:30:00	
15	VT320	9600-7-	-N-2	HW	30	5	00:30:00	
16	VT320	9600-7-	-E-2	BOTH	30	3	00:30:00	
TRM	TYPE	LOC			TMOUT	MXINV	DURAL	SECURE
17	TELNET	1201			60	5	00:30:00	yes
18	TELNET	1201			60	5	00:30:00	yes
19	TELNET	1201			60	5	00:30:00	yes



20	TELNE	TΤ	1201	L			60		5	00:30:0	0	yes
21	TELNE	ΕT	1201	L			60		5	00:30:0	0	yes
22	TELNE	ΞT	1201	L			60		5	00:30:0	0	yes
23	TELNE	ст	1201	L			60		5	00:30:0	0	- yes
24	TELNE	т	1201	L			60		5	00:30:0	0	- yes
25	TELNE	ст	1203	3			60		5	00:30:0	0	ves
26	TELNE	ст	1203	3			60		5	00:30:0	0	ves
27	TELNE	ст	1203	3			60		5	00:30:0	0	ves
28	TELNE	ст	1203	3			60		5	00:30:0	0	ves
29	TELNE	ст	1203	3			60		5	00:30:0	0	ves
30	TELNE	ст	1203	3			60		5	00:30:0	0	ves
31	TELNE	ст	1203	3			60		5	00:30:0	0	ves
32	TELNE	ст	1203	3			60		5	00:30:0	0	ves
33	TELNE	CT	1205	5			60		5	00:30:0	0	ves
34	TELNE	CT	1205	5			60		5	00:30:0	0	ves
35	TELNE	 77	1205	5			60		5	00:30:0	0	ves
36	TELNE	 77	1205	5			60		5	00:30:0	0	ves
37	TELNE	 77	1205	5			60		5	00:30:0	0	ves
38	TELNE	 77	1205	5			60		5	00:30:0	0	ves
39	TELNE	 77	1205	5			60		5	00:30:0	0	ves
40	TELNE	 775	1205	5			60		5	00:30:0	0	Veg
10			1200	,			00		5	00.30.0	0	JCD
TRM	LOGIN	JTMR	LOGOU	JTTMF	R PNO	GTIM	EINT	PNG	FAILCN	т		
	(sec))	(sec))	(ms	sec)						
17	none		none		nor	ne		1				
18	none		none		nor	ıe		1				
19	none		none		nor	ıe		1				
20	none		none		nor	ıe		1				
21	none		none		nor	ıe		1				
22	none		none		nor	ie		1				
23	none		none		nor	ıe		1				
24	none		none		nor	ıe		1				
25	none		none		nor	ıe		1				
26	none		none		nor	ıe		1				
27	none		none		nor	ıe		1				
28	none		none		nor	ıe		1				
28	none		none		nor	ıe		1				
30	none		none		nor	ıe		1				
31	none		none		nor	ıe		1				
32	none		none		nor	ıe		1				
33	none		none		nor	ıe		1				
34	none		none		nor	ie		1				
35	none		none		nor	ie		1				
36	none		none		nor	ie		1				
37	none		none		nor	ie		1				
38	none		none		nor	ne		1				
39	none		none		nor	ne		1				
40	none		none		nor	ne		1				
	-											
TRM	TRAF	LINK	SA	SYS	PU	DB	UIMF	RD				
1	NO	YES	NO	YES	NO	YES	YES					
2	NO	NO	NO	NO	NO	NO	NO					
3	YES	YES	YES	NO	YES	YES	YES					
4	YES	NO	NO	NO	NO	NO	NO					
5	NO	YES	NO	NO	NO	NO	YES					

	APP	APP									
TRM	SERV	SS	CARD	CLK	DBG	GTT	GWS	MEAS	MON	MPS	SEAS
1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
2	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
3	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
4	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	NO
5	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
6	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
7	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
8	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
9	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
10	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
11	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
12	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
13	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
14	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
15	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
16	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
17	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

6	NO	NO	YES	NO	NO	NO	NO
7	YES						
8	NO	NO	NO	NO	YES	NO	YES
9	NO	YES	NO	NO	NO	YES	NO
10	NO	NO	NO	NO	NO	NO	YES
11	YES						
12	YES						
13	NO	YES	NO	NO	NO	NO	YES
14	NO	NO	YES	NO	NO	NO	NO
15	YES	YES	YES	NO	YES	YES	YES
16	NO	NO	NO	NO	YES	NO	YES
17	NO						
18	NO						
19	NO						
20	NO						
21	NO						
22	NO						
23	NO						
24	NO						
25	NO	NO	NO	NO	YES	NO	YES
26	NO						
27	NO						
28	NO						
29	NO						
30	NO						
31	NO						
32	NO						
33	NO						
34	NO	NO	NO	NO	YES	NO	YES
35	NO						
36	NO						
37	NO						
38	NO						
39	NO						
40	NO						

18	NO										
19	NO										
20	NO										
21	NO										
22	NO										
23	NO										
24	NO										
25	NO										
26	NO										
27	NO										
28	NO										
29	NO										
30	NO										
31	NO										
32	NO										
33	NO										
34	NO										
35	NO										
36	NO										
37	NO										
38	NO										
39	NO										
40	NO										

If no telnet terminals are shown in the rtrv-trm output, or only one telnet terminal is shown in the rtrv-trm output, perform the Adding an E5-IPSM procedure and add E5-IPSM cards to the database. A minimum of two E5-IPSMs are required. After the E5-IPSMs have been added to the database, skip step 3 and go to step 4.

If two or three telnet terminals are shown in the rtrv-trm output, go to step 3.

3. Verify that the cards containing the telnet terminals shown in the rtrv-trm output in step 2 are E5-IPSMs. Enter the rept-stat-card command specifying the card location shown in the rtrv-trm output in step 2. For this example, enter these commands.

rept-stat-card:loc=1201

This is an example of the possible output.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
CARD
      VERSION
                   TYPE
                             GPL
                                        PST
                                                       SST
AST
1201
      126-003-000 IPSM
                             IPSHC
                                        IS-NR
                                                       Active
____
                    = No Alarms.
 ALARM STATUS
 IMTPCI GPL version = 126-002-000
 BLVXW6 GPL version = 126-002-000
 BLDIAG6 GPL version = 126-002-000
 BLBEPM GPL version = 126-002-000
 BLCPLD GPL version = 126-002-000
 IMT BUS A
                     = Conn
 IMT BUS B
                     = Conn
 CURRENT TEMPERATURE = 32C (90F)
```



PEAK TEMPERATURE: = 39C (103F) [06-05-02 13:40] Command Completed. rept-stat-card:loc=1203 This is an example of the possible output. rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 VERSION CARD TYPE GPL PST SST AST 1203 126-003-000 IPSM IPS IS-NR Active ____ ALARM STATUS = No Alarms. IMTPCI GPL version = 126-002-000 BLVXW6 GPL version = 126-002-000 BLDIAG6 GPL version = 126-002-000 BLBEPM GPL version = 126-002-000 BLCPLD GPL version = 126-002-000 = Conn

IMT BUS A= ConnIMT BUS B= ConnCURRENT TEMPERATURE= 32C (90F)PEAK TEMPERATURE:= 39C (103F)Command Completed.

rept-stat-card:loc=1205

This is an example of the possible output.

rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0 CARD VERSION TYPE GPL PST SST AST 1205 126-003-000 IPSM IPS IS-NR Active ____ ALARM STATUS = No Alarms. IMTPCI GPL version = 126-002-000 BLVXW6 GPL version = 126-002-000 BLDIAG6 GPL version = 126-002-000 BLBEPM GPL version = 126-002-000 BLCPLD GPL version = 126-002-000 IMT BUS A = Conn IMT BUS B = Conn CURRENT TEMPERATURE = 32C (90F) = 39C (103F) PEAK TEMPERATURE: [06-05-02 13:40] Command Completed.

If the GPL value shown in the rept-stat-card output is IPSHC, the card is an E5-IPSM. If the GPL value shown in the rept-stat-card output is IPS, the card is an IPSM.

If there are a minimum of two E5-IPSMs shown in the rept-stat-card outputs, go to step 4.

If there is only one E5-IPSM or no E5-IPSMs shown in the rept-stat-card outputs, E5-IPSMs must be added to the database so that there are a minimum of two E5-IPSMs in the database. Remove enough IPSMs from the database so

that when the E5-IPSMs are added, the EAGLE will contain a minimum of two E5-IPSMs. Perform the Removing an E5-IPSM procedure to remove the IPSMs. After the IPSMs have been removed from the database, remove the IPSM from the shelf.

When the IPSMs have been removed, perform the "Adding an IPSM" procedure in Chapter 4 of this manual to add the E5-IPSMs.

 Select two telnet terminals. Each telnet terminal must be assigned to different E5-IPSMs. Display the status of this terminal by entering the rept-stat-trm command with the number of the selected telnet terminal. For this example, enter these commands.

```
rept-stat-trm:trm=18
```

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 18 IS-NR Active -----

Command Completed.

```
rept-stat-trm:trm=27
```

This is an example of the possible output

rlghno	cxa03w	06-10-01	15:08:45	GMT	EAGLE5	36.0.0
TRM	PST	c.	SST		AST	
27	IS-NR	1	Active			

Command Completed.

- If the state of both telnet terminals displayed in step 4 is OOS-MT-DSBLD, skip step 5 and go to step 6.
- If the state of both telnet terminals displayed in step 4 is not OOS-MT-DSBLD, go to step 5.
- 5. To change the terminal type to a SEAS terminal type, the telnet terminal must be placed out of service using the rmv-trm command. Enter the rmv-trm command with the number of the terminal whose state is not OOS-MT_DSBLD. Perform this step only for the terminals shown in step 4 whose state is not OOS-MT_DSBLD.

```
rmv-trm:trm=18
rmv-trm:trm=27
```

When these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Inhibit message sent to terminal
```



rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.

6. Verify that the terminal that was inhibited in step 5 is in the OOS-MT-DSBLD state by entering the rept-stat-trm command with the number of the terminal specified in step 5.

For this command, enter these commands.

rept-stat-trm:trm=18

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 18 OOS-MT-DSBLD MANUAL -----Command Completed.

rept-stat-trm:trm=27

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 27 OOS-MT-DSBLD MANUAL -----Command Completed.

 Change the terminal type of the terminals shown in step 6 to the SEAS terminal type using the chg-trm command with the number of the terminals shown in step 6.

For this example enter these commands.

chg-trm:trm=18:type=seas

chg-trm:trm=27:type=seas

When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 CHG-TRM: MASP A - COMPLTD

8. Verify the changes made in step 7 by using the rtrv-trm command with the terminal number specified in step 7.

For this example, enter these commands.

rtrv-trm:trm=18

This is an example of the possible output.

 rlghncxa03w
 06-10-01
 16:02:08
 GMT EAGLES 39.0.0

 TRM
 TYPE
 LOC
 TMOUT MXINV DURAL
 SECURE

 18
 SEAS
 1201
 30
 5
 00:01:00
 yes



TRM LOGINTMR LOGOUTTMR PNGTIMEINT PNGFAILCNT (sec) (sec) (msec) 18 none none none 1 TRM TRAF LINK SA SYS PU DB UIMRD 18 NO NO NO NO NO NO APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 18 NO NO NO NO NO NO NO NO NO YES rtrv-trm:trm=27 This is an example of the possible output. rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 39.0.0 TRM TYPE LOC TMOUT MXINV DURAL SECURE 5 00:01:00 yes 27 SEAS 1203 30 TRM LOGINTMR LOGOUTTMR PNGTIMEINT PNGFAILCNT (sec) (sec) (msec) none none 27 none 1 TRM TRAF LINK SA SYS PU DB UIMRD 27 NO NO NO NO NO NO APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 27 NO NO NO NO NO NO NO NO NO YES

9. Display the SEAS configuration using the rtrv-seas-config command.

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is not enabled and turned on.

rlghncxa03w 07-01-23 18:46:01 EST EAGLE 37.5.0 SEASCLLI CONNECTION IPADDRESS PORT TERMINAL ----- ---- ---- -----TEAGLESTP001 IPMR1 192.168.25.10 2500 --IPMR2 192.168.25.20 2600 --

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is enabled and turned on.



	IPMR1	198.168.25.10	2500	root	abaco-
a					
	IPMR2	198.168.25.20	2600	root	abaco-
b					

10. Verify the connection to the CCS MR by entering the pass: cmd="ping" command specifying the card location of the SEAS terminal (shown in step 8) and the IP address assigned to the connection (shown in step 9). Perform this step for both connection to the CCS MR. For this example, enter these commands

pass:loc=1201:cmd="ping 198.168.25.10"

The following is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0 PASS: Command sent to card

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0 PING command in progress

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0
PING 198.168.25.10: 56 data bytes
64 bytes from tekral.nc.tekelec.com (198.168.25.10): icmp_seq=0.
time=5. ms
64 bytes from tekral.nc.tekelec.com (198.168.25.10): icmp_seq=1.
time=9. ms
64 bytes from tekral.nc.tekelec.com (198.168.25.10): icmp_seq=2.
time=14. ms
----tekral PING Statistics---3 packets transmitted, 3 packets received, 0% packet loss
round-trip (ms) min/avg/max = 5/9/14

PING command complete

pass:loc=1203:cmd="ping 198.168.25.20"

The following is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0 PASS: Command sent to card

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0 PING command in progress

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0
PING 198.168.25.20: 56 data bytes
64 bytes from tekral.nc.tekelec.com (198.168.25.20): icmp_seq=0.
time=5. ms
64 bytes from tekral.nc.tekelec.com (198.168.25.20): icmp_seq=1.
time=9. ms
64 bytes from tekral.nc.tekelec.com (198.168.25.20): icmp_seq=2.
time=14. ms

```
----tekral PING Statistics----
3 packets transmitted, 3 packets received, 0% packet loss
round-trip (ms) min/avg/max = 5/9/14
```

PING command complete

11. Put the SEAS terminals into service using the alw-trm command with the number of the SEAS terminals shown in step 8.

alw-trm:trm=18

When this command has successfully completed, this message should appear.

rlghncxa03w 04-01-07 11:11:28 EST EAGLE 31.3.0 Allow message sent to terminal rlghncxa03w 04-01-07 11:11:28 EST EAGLE 31.3.0

1062.0046 TERMINAL 18 Terminal Enabled

```
alw-trm:trm=27
```

When this command has successfully completed, this message should appear.

rlghncxa03w 04-01-07 11:11:28 EST EAGLE 31.3.0 Allow message sent to terminal

rlghncxa03w 04-01-07 11:11:28 EST EAGLE 31.3.0 1062.0046 TERMINAL 27 Terminal Enabled

12. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.









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Sheet 2 of 3





Sheet 3 of 3

Changing the Existing SEAS Configuration

This procedure is used to change the existing SEAS configuration using the $\tt chg-seas-config$ command.

The chg-seas-config command uses these parameters.

: conn - The name of the SEAS connection, either IPMR1 or IPMR2

:seasclli – The CLLI part of node name of the EAGLE consisting of one alphabetic character and up to 15 alphanumeric characters. The seasclli value is different from the EAGLE clli value that is entered with the chg-sid command. The seasclli value must also be configured on the Telcordia Message Router (CCS MR). Refer to Telcordia Configuration Specification "Telcordia Technologies System Documentation", *BD-SNAM-ADMIN-4 Issue 14, November 2006*.

:ipaddr – The IP address of the CCS MR.

: port – The port number of the CCS MR that the EAGLE connects to, from 1024 to 5000.

:hname – The name of the remote host of the **CCS MR**, 1 to 15 alphanumeric characters.

:login – The login name of the CCS MR, 1 to 15 alphanumeric characters.

:authmode – The method of authentication used for the connection. Currently, only password authentication is used for SEAS connections, so this parameter has only one value, password. This parameter is optional and does not need to be specified.

The hname, login, and authmode parameters are used only when the Eagle OA&M IP Security feature is enabled and turned on. The values for these parameters are displayed in the rtrv-seas-config output only when the Eagle OA&M IP Security feature is enabled and turned on. The status of the Eagle OA&M IP Security feature is shown in the rtrv-ctrl-feat output.

If the seasclli value is being changed, all the SEAS terminals must be taken out of service. If the connection information for one connection is being changed, only the terminal associated with this connection must be taken out of service.

Caution:

The IP address and port value combination for each SEAS connection must be unique or the chg-seas-config command will be rejected.

The IP address for the SEAS over IP configuration cannot be shown as the IPADDR value in the rtrv-ip-lnk or rtrv-ftp-serv outputs, or the BPIPADDR value in the rtrv-ip-card output.

1. Display the current SEAS configuration using the rtrv-seas-config command.



The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is not enabled and turned on.

rlghncxa03w	07-01-23 18:	46:01 EST EAGLE	37.5.0	
SEASCLLI	CONNECTION	IPADDRESS	PORT	TERMINAL
TEAGLESTP001	IPMR1	192.168.25.10	2500	18
	IPMR2	192.168.25.20	2600	27

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is enabled and turned on.

tekelecstp 07 SEASCLLI	-01-23 18:46 AUTHMO	:01 EST EAGLE 37.! DDE 	5.0		
TEAGLESTP001	Passwo	ord			
TERMINAL	CONNECTION	IPADDR	PORT	LOGIN	HNAME
18	IPMR1	198.168.25.10	2500	root	abaco-
a					
27	IPMR2	198.168.25.20	2600	root	abaco-
b					

2. Display the status of the SEAS terminal associated with the connection that is being changed. Enter the rept-stat-trm command with the terminal number shown in 1.

If the seasclli value is being changed, both SEAS terminals must be taken out of service. Perform this step for both SEAS terminals.

For this example, enter these commands.

rept-stat-trm:trm=18

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 18 IS-NR Active -----

Command Completed.

rept-stat-trm:trm=27

This is an example of the possible output.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 TRM PST SST AST 27 IS-NR Active -----

Command Completed.



3. Place the SEAS terminals displayed in 2 out of service using the rmv-trm command. Enter the rmv-trm command with the number of the terminal whose state is not OOS-MT_DSBLD. Perform this step only for the terminals shown in 2 whose state is not OOS-MT_DSBLD.



```
rmv-trm:trm=18
```

```
rmv-trm:trm=27:force=yes
```

When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 Inhibit message sent to terminal

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.
```

Note:

If the SEASCLLI value is not being changed, skip step 4 and go to step 5.

4. Change the SEASCLLI value by entering the chg-seas-config command with the seasclli parameter. For this example, enter this command.

chg-seas-config:seasclli=TEAGLESTP002

Note:

The SEASCLLI value is different from the CLLI value specified with the chg-sid command.

Note:

If only the SEASCLLI value is being changed in this procedure, skip step 5 and go to step 6.

- 5. Change the connection information for a connection to the CCS MR. Enter the chg-seas-config command with these parameters:
 - :conn=<the name of the connection being changed, ipmr1 or ipmr2>



- ipaddr=the IP address of the CCS MR
- :port = the port number of the CCS MR

Caution:

The IP address and port value combination for each SEAS connection must be unique or the chg-seas-config command will be rejected.

If the Eagle OA&M IP Security Enhancement feature is enabled and turned on, these parameters can also be specified.

- :hname = The name of the remote host of the CCS MR.
- :login = The login name of the CCS MR.

If the LOGIN column is shown in the rtrv-seas-config output in 1, the Eagle OA&M IP Security Enhancement feature is enabled and turned on.

Note:

If you wish to specify the login and hname parameters for the connection being changed, and the Eagle OA&M IP Security Enhancement feature is not enabled and turned on, perform the Activating the EAGLE OA&M IP Security Enhancement Controlled Feature procedure to enable and turn on the Eagle OA&M IP Security Enhancement feature. Enable and turn on the Eagle OA&M IP Security Enhancement feature before performing the chg-seasconfig command.

If the Eagle OA&M IP Security Enhancement feature is not enabled and turned on, for this example, enter this command.

chg-seas-config:conn=ipmr1:ipaddr=198.168.25.30:port=3000

If the Eagle OA&M IP Security Enhancement feature is enabled and turned on, for this example, enter this command.

chg-seasconfig:conn=ipmr1:ipaddr=198.168.25.30:port=3000:hname=remote 2:login=root

When this command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0 CHG-SEAS-CONFIG: MASP A - COMPLTD

If the login parameter was specified with the chg-seas-config command, the Enter Password: prompt appears. When the Enter Password: prompt appears, enter the password for the login name. The length of the password is from 1 to 15 characters. The password is not echoed on the screen.

6. Verify the SEAS configuration using the rtrv-seas-config command.



The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is not enabled and turned on.

rlghncxa03w	07-01-23 18:	46:01 EST EAGLE	37.5.0	
SEASCLLI	CONNECTION	IPADDRESS	PORT	TERMINAL
TEAGLESTP002	IPMR1	192.168.25.30	3000	18
	IPMR2	192.168.25.20	2600	27

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is enabled and turned on.

tekelecstp 07 SEASCLLI	7-01-23	18:46:01 AUTHMODE	EST EAGLE	37.5.	0		
TEAGLESTP002		Password					
TERMINAL	CONNEC	TION	IPADDR		PORT	LOGIN	HNAME
18	IPMR1		198.168.25.	30	3000	root	abaco-
a							
27	IPMR2		198.168.25.	20	2600	root	abaco-
α							

Note:

If only the SEASCLLI value was changed, continue the procedure with 9.

 Display the SEAS terminal associated with the connection that was changed in 6 using the rtrv-trm with the number of the SEAS terminal associated with the connection that was changed.

For this example, enter this command.

```
rtrv-trm:trm=18
```

This is an example of the possible output.

rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 36.0.0												
TRM	TYPE		LOC				TMC	DUT M	XINV	DURA	ΑL	SECURE
18	SEAS		1201	1			30	5		00:0	01:00	yes
TRM	TRAF	LINK	C SA	SYS	PU	DB	UIM	RD				
18	NO	NO	NO	NO	NO	NO	NO					
	APP	APP										
TRM	SERV	SS	CARD	CLK	DBG	GTT	GWS	MEAS	MON	MPS	SEAS	
18	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	



8. Verify the connection to the CCS MR by entering the pass: cmd="ping" command specifying the card location of the SEAS terminal (shown in 7) and the IP address assigned to the connection (shown in 6).

pass:loc=1201:cmd="ping 198.168.25.30"

The following is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0 PASS: Command sent to card

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0 PING command in progress

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0
PING 198.168.25.30: 56 data bytes
64 bytes from tekral.nc.tekelec.com (198.168.25.30): icmp_seq=0.
time=5. ms
64 bytes from tekral.nc.tekelec.com (198.168.25.30): icmp_seq=1.
time=9. ms
64 bytes from tekral.nc.tekelec.com (198.168.25.30): icmp_seq=2.
time=14. ms
----tekral PING Statistics---3 packets transmitted, 3 packets received, 0% packet loss
round-trip (ms) min/avg/max = 5/9/14

PING command complete

If you wish to change the other connection, repeat this procedure from 2.

If all the changes to the SEAS configuration have been made, continue the procedure with 9.

 Put the SEAS terminals into service using the alw-trm command with the number of the SEAS terminals shown in 6. This step should be performed for all the SEAS terminals that were taken out of service in 3.

alw-trm:trm=18

When this command has successfully completed, this message should appear.

rlghncxa03w 04-01-07 11:11:28 EST EAGLE 31.3.0 Allow message sent to terminal

rlghncxa03w 04-01-07 11:11:28 EST EAGLE 31.3.0 1062.0046 TERMINAL 18 Terminal Enabled

alw-trm:trm=27

When this command has successfully completed, this message should appear.

rlghncxa03w 04-01-07 11:11:28 EST EAGLE 31.3.0 Allow message sent to terminal



rlghncxa03w 04-01-07 11:11:28 EST EAGLE 31.3.0 1062.0046 TERMINAL 27 Terminal Enabled

10. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure 5-7 Changing the Existing SEAS Configuration



Sheet 1 of 3





Sheet 2 of 3





Sheet 3 of 3

Turning Off the SEAS Over IP Feature

This procedure is used to turn off the SEAS over IP feature using the ${\tt chg-ctrl-feat}$ command.

The chg-ctrl-feat command uses the following parameters:

:partnum - The part number of the SEAS over IP feature, 893018801.

:status=off - used to turn off the SEAS over IP feature.

The status of the SEAS over IP feature must be on and is shown with the ${\tt rtrv-ctrl-feat}$ command.

Caution:

If the SEAS over IP feature is turned off, all SEAS terminal traffic stops.

 Display the status of the SEAS over IP feature by entering the rtrv-ctrlfeat:partnum=893018801 command. The following is an example of the possible output.

The following is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantitySEAS over IP893018801on----

The following features have been temporarily enabled: Feature Name Partnum Status Quantity Trial Period Left Zero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the status of the SEAS over IP feature is off, or if the SEAS over IP feature is not enabled, this procedure cannot be performed.

2. Turn off the SEAS over IP feature by entering the chg-ctrl-feat command with the status=off parameter. Enter this command.

chg-ctrl-feat:partnum=893018801:status=off



When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0 CHG-CTRL-FEAT: MASP A - COMPLTD

3. Verify that the SEAS over IP feature has been turned off by using the rtrvctrl-feat:partnum=893018801 command. The following is an example of the possible output.

rlghncxa03w 07-05-28 21:15:37 GMT EAGLE5 37.0.0 The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
SEAS over IP	893018801	off	

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

Note:

Once the SEAS over IP feature is turned off, the SEAS terminals can be changed to TELNET terminals. If you do not wish to change the SEAS terminals to TELNET terminals, skip steps 4 through 6, and go to step 7.

4. Display the SEAS configuration by entering the rtrv-seas-config command.

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is not enabled and turned on.

rlghncxa03w	07-01-23 18:	46:01 EST E	EAGLE	37.5.0	
SEASCLLI	CONNECTION	IPADDRESS		PORT	TERMINAL
TEAGLESTP001	IPMR1	192.168.25.	.10	2500	18
	IPMR2	192.168.25.	.20	2600	27

The following is an example of the possible output if the Eagle OA&M IP Security Enhancement feature is enabled and turned on.

tekelecstp 07-01-23 18:46:01 EST EAGLE 37.5.0 SEASCLLI AUTHMODE



TEAGLESTP001	Passwo	rd			
TERMINAL	CONNECTION	IPADDR	PORT	LOGIN	HNAME
18	IPMR1	198.168.25.10	2500	root	abaco-
a					
27	IPMR2	198.168.25.20	2600	root	abaco-
b					

5. Change the terminal type of the terminals shown in step 4 to the TELNET terminal type using the chg-trm command with the number of the terminals shown in step 4.

For this example enter these commands.

chg-trm:trm=18:type=telnet

chg-trm:trm=27:type=telnet

When these commands have successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
CHG-TRM: MASP A - COMPLTD
```

A warning message, "Invalidating the Terminal data in SEASCFG table", is also displayed.

6. Verify the changes made in step 5 by using the rtrv-trm command with the terminal number specified in step 5.

For this example, enter these commands.

```
rtrv-trm:trm=18
```

This is an example of the possible output.

```
rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 36.0.0
TRM TYPE LOC
                   TMOUT MXINV DURAL
                                              SECURE
            1201
                          30
                             5 00:01:00
18
    TELNET
                                              yes
TRM TRAF LINK SA SYS PU DB UIMRD
18
   NO
        NO
            NO NO NO NO NO
    APP APP
TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS
18
   NO
       NO NO NO NO NO NO NO NO YES
rtrv-trm:trm=27
```



This is an example of the possible output.

rlghncxa03w 06-10-01 16:02:08 GMT EAGLE5 36.0.0 TRM TYPE LOC TMOUT MXINV DURAL SECURE 27 TELNET 1203 00:01:00 yes 30 5 TRM TRAF LINK SA SYS PU DB UIMRD 27 NO NO NO NO NO NO APP APP TRM SERV SS CARD CLK DBG GTT GWS MEAS MON MPS SEAS 27 NO NO NO NO NO NO NO NO NO YES

 Backup the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (MASP) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP.BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete.BACKUP (FIXED) : MASP A - Backup starts on standby MASP.BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.









A Controlled Feature Activation Procedures

Appendix A, Controlled Feature Activation Procedures, describes the procedures necessary to activate and deactivate features (features that require a feature access key to be activated) contained in this manual.

Introduction

Note:

As of Release 46.3, the fak parameter is no longer required. This parameter is only used for backward compatibility.

Controlled features are features that are activated using a feature access key. These features can either be on or off, or features that operate at a particular performance level. Only the controlled features that are used in this manual are covered in this appendix.

The feature access key allows the user to enable and activate a controlled feature in the **EAGLE** by entering either a permanent feature access key or a temporary feature access key. By requiring a feature access key to enable and activate a controlled feature, unauthorized enabling and activation of a controlled feature can be prevented. The feature access key is supplied by Oracle.

Features enabled with a permanent feature access key remain enabled for as long as the **EAGLE** remains in service. Once features are permanently enabled, they cannot be disabled.

Features enabled with a temporary feature access key are enabled for only 30 days. On the twenty-third day, seven days before the temporary key expires, a major alarm (**UAM** 0367) is generated to inform the user that the one or more temporary feature access keys will expire soon.

0367.0181 ** SYSTEM Temp Key(s) expiring soon.

If a temporary feature access key expires, the controlled feature is disabled and a critical alarm (**UAM** 0368) is generated.

0368.0181 *C SYSTEM Temp Key(s) have expired.

Any attempts to enable the controlled feature with the temporary feature access key are rejected. The controlled feature can be enabled only by entering the permanent feature access key for the controlled feature.



To clear the critical alarm (**UAM** 0368), the user can either enter the chg-ctrl-feat command with the alarm=clear parameter, or permanently enable the controlled feature by entering the permanent feature access key for the controlled feature.

If the critical alarm is cleared with the chg-ctrl-feat command, the controlled feature is disabled and cannot be enabled with the temporary feature access key. The feature can be enabled only by entering the permanent feature access key for the controlled feature.

Activating Controlled Features

This procedure is used to enable and activate these controlled features, **Command Class** Management, **IP** User Interface, and Network Security Enhancements, using the feature's part number and a feature access key for each feature.

The feature access key is based on the feature's part number and the serial number of the **EAGLE**, making the feature access key site-specific.

The enable-ctrl-feat command enables the controlled feature by inputting the controlled feature's access key and the controlled feature's part number with these parameters:

:fak – The feature access key generated by the feature access key generator. The feature access key contains 13 alphanumeric characters and is not case sensitive.

:partnum – The Oracle-issued part number associated with the controlled feature. The part number is a 9-digit number, not including dashes. The first three digits must be 893 (that is, 893xxxxx, where x is a numeric value).

If the controlled feature is being enabled with a temporary feature access key, the feature must not be in the *in-use*, *expired*, or *unavailable* state.

The enable-ctrl-feat command requires that the database contain a valid serial number for the **EAGLE**, and that this serial number is locked. This can be verified with the rtrv-serial-num command. The **EAGLE** is shipped with a serial number in the database, but the serial number is not locked. The serial number can be changed, if necessary, and locked once the **EAGLE** is on-site, with the ent-serial-num command. The ent-serial-num command uses these parameters.

:serial - The serial number assigned to the EAGLE. The serial number is not case sensitive.

: lock – Specifies whether or not the serial number is locked. This parameter has only one value, yes, which locks the serial number. Once the serial number is locked, it cannot be changed.

Note:

To enter and lock the **EAGLE**'s serial number, the ent-serial-num command must be entered twice, once to add the correct serial number to the database with the serial parameter, then again with the serial and the lock=yes parameters to lock the serial number. You should verify that the serial number in the database is correct before locking the serial number. The serial number can be found on a label affixed to the control shelf (shelf 1100).



Once the controlled feature has been enabled, the controlled feature must be activated with the chg-ctrl-feat command. The chg-ctrl-feat command uses these parameters:

:partnum – The Oracle-issued part number associated with the controlled feature. The part number is a 9-digit number, not including dashes. The first three digits must be 893 (that is, 893xxxxx, where x is a numeric value).

: status=on - used to activate the controlled features that customer has purchased and enabled.

The status of the controlled features in the \mbox{EAGLE} is shown with the $\mbox{rtrv-ctrl-feat}$ command.

The part numbers for the **Command Class** Management, **IP** User Interface, and Network Security Enhancements features are:

- Command Class Management 893005801
- Telnet (IP User Interface) 893005701
- Network Security Enhancements 893009101
- 1. Display the status of the controlled features by entering the rtrv-ctrl-feat command.

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
Command Class Management	893005801	off	
LNP Short Message Service	893006601	on	
Intermed GTT Load Sharing	893006901	off	
XGTT Table Expansion	893006101	off	
XMAP Table Expansion	893007710	on	3000
Large System # Links	893005910	on	2000
Routesets	893006401	on	6000

The following features have been temporarily enabled:

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

Partnum

The following features have expired temporary keys:

Feature Name Zero entries found.

If the rtrv-ctrl-feat output shows that the controlled feature is permanently enabled, and its status is on, no further action is necessary.

If the controlled feature is permanently enabled, and its status is off, skip steps 2 through 4, and go to step 5.



If the controlled feature is temporarily enabled, and you wish to permanently enable this feature, or the temporary feature access key for that feature has expired, skip steps 2 and 3, and go to step 4.

If the controlled feature is to remain temporarily enabled, and its status is off, skip steps 2 through 4, and go to step 5. If the feature's status is on, no further action is necessary.

If the controlled feature is to remain temporarily enabled, and its status is on, no further action is necessary.



If the rtrv-ctrl-feat output in step 1 shows any controlled features, skip steps 2 and 3, and go to step 4. If the rtrv-ctrl-feat output shows only the **HC-MIMSLK** Capacity feature with a quantity of 64, steps 2 and 3 must be performed.

2. Display the serial number in the database with the rtrv-serial-num command.

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
System serial number = ntxxxxxxxxxxx

System serial number is not locked.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
Command Completed
```

Note:

If the serial number is correct and locked, skip steps 3, 4, and 5, and go to step 6. If the serial number is correct but not locked, skip steps 3 and 4, and go to step 5. If the serial number is not correct, but is locked, this feature cannot be enabled and the remainder of this procedure cannot be performed. Contact the Customer Care Center to get an incorrect and locked serial number changed. Refer to My Oracle Support (MOS) for the contact information. The serial number can be found on a label affixed to the control shelf (shelf 1100).

3. Enter the correct serial number into the database using the ent-serial-num command with the serial parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's correct serial number>


When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD

4. Verify that the serial number entered into step 3 was entered correctly using the rtrv-serial-num command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
System serial number = nt00001231
System serial number is not locked.
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
Command Completed
```

If the serial number was not entered correctly, repeat steps 3 and 4 and re-enter the correct serial number.

5. Lock the serial number in the database by entering the ent-serial-num command with the serial number shown in step 2, if the serial number shown in step 2 is correct, or with the serial number shown in step 4, if the serial number was changed in step 3, and with the lock=yes parameter.

For this example, enter this command.

```
ent-serial-num:serial=<EAGLE's serial number>:lock=yes
```

When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD

6. Enable the controlled feature with either a permanent key or temporary key by entering the enable-ctrl-feat command.

For this example, enter these commands.



Note:

The values for the feature access key (the fak parameter) are provided by Oracle. The feature access key determines if the controlled feature is permanently or temporarily enabled. If you do not have the controlled feature part number or the feature access key for the feature you wish to enable, contact your Oracle Sales Representative or Account Representative.

When the enable-ctrl-feat command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
ENABLE-CTRL-FEAT: MASP B - COMPLTD
```

Note:

If a temporarily enabled feature was permanently enabled in step 4, and the status of the temporarily enabled feature was on, skip step 5 and go to step 6.

7. The controlled features enabled in step 4 must be activated using the chg-ctrlfeat command, specifying the controlled feature part number used in step 4 and the status=on parameter.

For this example, enter these commands. chg-ctrl-feat:partnum=893005801:status=on

chg-ctrl-feat:partnum=893005701:status=on

chg-ctrl-feat:partnum=893009101:status=on

When the **chg-ctrl-feat** command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CHG-CTRL-FEAT: MASP B - COMPLTD

8. Verify the changes by entering the rtrv-ctrl-featcommand with the part number specified in step 5.

rtrv-ctrl-feat:partnum=893005801

The following is an example of the possible output.

```
rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:
Feature Name Partnum Status Quantity
Command Class Management 893005801 on ----
```



rtrv-ctrl-feat:partnum=893005701

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled: Feature Name Partnum Status Quantity Telnet 893005701 on ----

rtrv-ctrl-feat:partnum=893009101

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled: Feature Name Partnum Status Quantity Network Security Enhance 893009101 on ----

9. Backup the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure A-1 Activating Controlled Features





Sheet 1 of 4





Sheet 2 of 4







Sheet 3 of 4







Sheet 4 of 4

Activating the EAGLE OA&M IP Security Enhancement Controlled Feature

This procedure is used to enable and activate the EAGLE **OAM IP** Security Enhancement Controlled Feature, using the feature's part number and a feature access key.

For Release 46.5 and later. the EAGLE OA&M IP Security feature is enabled by default and the feature entry is used to control only the alarming if the SSH for terminals or Security of FTP Server entries is OFF. SSH for terminals and Security of FTP Server entries are controlled via the SECU-DFLT: SSH parameter and SECUIRTY parameter against the FTP servers entries, respectively. The following is expected after upgrade to release 46.5 or later from release 46.4 or earlier:

- **1.** If the OA&M IP Security feature is currently (R46.4 or earlier) OFF, then it will remain OFF after the upgrade to R46.5.
- 2. If the OA&M IP Security feature is currently (R46.4 or earlier) ON, and all the FTP Servers have Security ON and the Telnet terminals are using SSH, then it will remain ON after the upgrade to R46.5.
- 3. If the OA&M IP Security feature is currently (R46.4 or earlier) ON, and there was 1 or more FTP Servers or Telnet terminals not using SSH, then it will be turned OFF after upgrade to R46.5, so that no new alarms will be generated after the upgrade.
- 4. If the OA&M IP Security feature is currently (R46.4 or earlier) OFF and SECU-DFLT-SSH parameter is ON, then the SECU-DFLT-SSH parameter will be turned OFF after the upgrade to R46.5, so that the access protocol used will not be changed after the upgrade.
- 5. If the OA&M IP Security feature is currently (R46.4 or earlier) OFF and the SECURITY parameter is ON for the FTP server entry in the FTP server table, then the SECURITY parameter for the FTP server entry (except for the SFLOG FTP server entry) will be turned OFF after the upgrade to R46.5, so that the file transfer protocol used will not be changed after the upgrade.

With SSH for terminals ON, a secure shell connection is established between the **EAGLE** and the telnet terminals allowing passwords to be sent over the connection. This allows the **EAGLE** administrator to add new users to the **EAGLE** (with the ent-user command) and to change the passwords of existing users (with the pid parameter of the chg-user command) from a telnet terminal.

If the SSH for terminals is ON, the **FTRA** must be configured to support secure connections to the **EAGLE**. Go to **FTP** *Table Base Retrieval User's Guide*, for more information on using secure connections with the **FTRA**.

If Security of meas FTP Server entry is ON, the Measurements Platform must support secure **FTP** servers. Go to the Adding an FTP Server procedure for more information on configuring secure **FTP** servers for the Measurements Platform.

Similarly, if Security of FTP Server entry for any specific application (dist, db, user) is ON, the designated FTP server for the application must support secure FTP protocol.



Caution:

If EAGLE **OA**&M **IP** Security Enhancements feature is activated with a temporary feature access key and that key expires, secure shell connections will become non-secure. Passwords can be transmitted on a non-secure connection, but cannot be assigned or changed. The ent-user command and pid parameter of the chg-user command cannot be used. File transfers using secure **FTP** cannot be performed unless non-secure **FTP** servers are available. It is recommended that the **FTRA** and the Measurements Platform is configured with secure and non-secure **FTP** servers.

To enable and activate this feature, the enable-ctrl-feat, ent-serial-num, and chg-ctrl-feat commands are used. For more information on these commands, go to the Activating Controlled Features procedure, or *Commands User's Guide*.

1. Display the status of the controlled features by entering the rtrv-ctrl-feat command.

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
Command Class Management	893005801	off	
LNP Short Message Service	893006601	on	
Intermed GTT Load Sharing	893006901	off	
XGTT Table Expansion	893006101	off	
XMAP Table Expansion	893007710	on	3000
Large System # Links	893005910	on	2000
Routesets	893006401	on	6000

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

If the rtrv-ctrl-feat output shows that the controlled feature is permanently enabled, and its status is on, no further action is necessary.

If the controlled feature is permanently enabled, and its status is off, skip steps 2 through 6, and go to step 7.



If the controlled feature is temporarily enabled, and you wish to permanently enable this feature, or the temporary feature access key for that feature has expired, skip steps 2 through 5, and go to step 6.

If the controlled feature is to remain temporarily enabled, and its status is off, skip steps 2 through 6, and go to step 7. If the feature's status is on, no further action is necessary. If the controlled feature is to remain temporarily enabled, and its status is on, no further action is necessary.

Note:

If the rtrv-ctrl-feat output in step 1 shows any controlled features, skip steps 2 through 5, and go to step 6. If the rtrv-ctrl-feat output shows only the **HC-MIMSLK** Capacity feature with a quantity of 64, steps 2 through 5 must be performed.

2. Display the serial number in the database with the rtrv-serial-num command.

This is an example of the possible output.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
System serial number = ntxxxxxxxxxxx
```

System serial number is not locked.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
Command Completed
```

Note:

If the serial number is correct and locked, skip steps 3, 4, and 5, and go to step 6. If the serial number is correct but not locked, skip steps 3 and 4, and go to step 5. If the serial number is not correct, but is locked, this feature cannot be enabled and the remainder of this procedure cannot be performed. Contact the Customer Care Center to get an incorrect and locked serial number changed. Refer to My Oracle Support (MOS) for the contact information. The serial number can be found on a label affixed to the control shelf (shelf 1100).

3. Enter the correct serial number into the database using the ent-serial-num command with the serial parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's correct serial number>

When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD



4. Verify that the serial number entered into step 3 was entered correctly using the rtrv-serial-num command.

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
System serial number = nt00001231
System serial number is not locked.
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
Command Completed

If the serial number was not entered correctly, repeat steps 3 and 4 and re-enter the correct serial number.

5. Lock the serial number in the database by entering the ent-serial-num command with the serial number shown in step 2, if the serial number shown in step 2 is correct, or with the serial number shown in step 4, if the serial number was changed in step 3, and with the lock=yes parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's serial number>:lock=yes

When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD

6. Enable the controlled feature with either a permanent key or temporary key by entering the enable-ctrl-feat command.

For this example, enter this command.
enable-ctrl-feat:partnum=893400001:fak=<feature access key>

Note:

The values for the feature access key (the fak parameter) are provided by Oracle. If you do not have the feature access key for the SEAS over IP feature, contact your Oracle Sales Representative or Account Representative.

When the enable-ctrl-feat command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
ENABLE-CTRL-FEAT: MASP B - COMPLTD
```



Note:

If the feature was temporarily enabled before being permanently enabled in step 6, and the status of the temporarily enabled feature was on, skip steps 7 through 12, and go to step 13.

7. Before the status of the EAGLE **OAMIP** Security Enhancements controlled feature can be changed to on, all **ISPMs**, if present, must be taken out of service.

Before the **ISPMs** can be taken out of service, all telnet terminals associated with the **IPSMs** must be taken out of service. Enter the rtrv-trm command to display the terminals in the database. The following is an example of the possible output.

rlgh	ncxa03w	06-10-01 16:	02:08 G	MT EAGI	LE5 39	.0.0	
TRM	TYPE	COMM	FC	TMOUT	MXINV	DURAL	
1	VT320	9600-7-E-1	SW	30	5	99:59:59	
2	KSR	9600-7-E-1	HW	30	5	INDEF	
3	PRINTER	4800-7-E-1	HW	30	0	00:00:00	
4	VT320	2400-7-E-1	BOTH	30	5	00:30:00	
5	VT320	9600-7-0-1	NONE	30	5	00:00:30	
6	VT320	9600-7-E-2	SW	30	9	INDEF	
7	PRINTER	9600-7-N-2	HW	30	5	00:30:00	
8	KSR	19200-7-E-2	BOTH	30	5	00:30:00	
9	VT320	9600-7-E-1	SW	30	7	00:30:00	
10	VT320	9600-7-E-1	HW	30	5	00:30:00	
11	VT320	4800-7-E-1	HW	30	5	00:30:00	
12	PRINTER	9600-7-E-1	. HW	30	4	00:30:00	
13	VT320	9600-7-0-1	NONE	30	5	00:30:00	
14	VT320	9600-7-E-2	SW	30	8	00:30:00	
15	VT320	9600-7-N-2	HW	30	5	00:30:00	
16	VT320	9600-7-E-2	BOTH	30	3	00:30:00	
TRM	TYPE	LOC		TMOUT	MXINV	DURAL	SECURE
17	TELNET	2107		60	5	00:30:00	
18	TELNET	2107		60	5	00:30:00	
19	TELNET	2107		60	5	00:30:00	
20	TELNET	2107		60	5	00:30:00	
21	TELNET	2107		60	5	00:30:00	
22	TELNET	2107		60	5	00:30:00	
23	TELNET	2107		60	5	00:30:00	
24	TELNET	2107		60	5	00:30:00	
25	TELNET	2108		60	5	00:30:00	
26	TELNET	2108		60	5	00:30:00	
27	TELNET	2108		60	5	00:30:00	
28	TELNET	2108		60	5	00:30:00	
29	TELNET	2108		60	5	00:30:00	
30	TELNET	2108		60	5	00:30:00	
31	TELNET	2108		60	5	00:30:00	
32	TELNET	2108		60	5	00:30:00	
33	TELNET	2111		60	5	00:30:00	
34	TELNET	2111		60	5	00:30:00	
35	TELNET	2111		60	5	00:30:00	
36	TELNET	2111		60	5	00:30:00	

ORACLE



	Appendix A
Activating the EAGLE OA&M IP Security Enha	ancement Controlled Feature

37	TELNI	ΞT	211	1			60	5		00:3	30:00
38	TELNI	ΞT	2111			60		5		00:	30:00
39	TELNI	ΞT	2111			60		5		00:	30:00
40	TELNI	ΞT	2113	1			60	5		00:3	30:00
TRM	LOGII	NTMR	LOGOU	JTTMI	R PNO	GTIMI	EINT	PNGF	AILCI	T	
	(sec)	(sec)	(ms	sec)					
17	none		none		nor	ıe		1			
18	none		none		nor	ıe		1			
19	none		none		nor	ıe		1			
20	none		none		nor	ıe		1			
21	none		none		nor	ıe		1			
22	none		none		nor	ıe		1			
23	none		none		nor	ıe		1			
24	none		none		nor	ıe		1			
25	none		none		nor	ıe		1			
26	none		none		nor	ıe		1			
27	none		none		nor	ne		1			
2.8	none		none		nor	ne		1			
2.8	none		none		nor	-0 10		1			
30	none		none		nor	-0 10		1			
31	none		none		nor	10		1			
32	none		none		nor	10		1			
22	none		none		nor	10		1			
34	none		none		nor	10		1			
35	none		none		nor	10		1			
36	none		none		nor	10		1			
37	none		none		nor	10		1			
38	none		none		nor	10		1			
39	none		none		nor	10 10		1			
40	none		none		nor	10 10		1			
10	none		none			10		-			
TRM	TRAF	LIN	K SA	SYS	PU	DB	UIM	RD			
1	NO	YES	NO	YES	NO	YES	YES				
2	NO	NO	NO	NO	NO	NO	NO				
•											
•											
•											
39	NO	NO	NO	NO	NO	NO	NO				
40	NO	NO	NO	NO	NO	NO	NO				
	APP	APP									
TRM	SERV	SS	CARD	CLK	DBG	GTT	GWS	MEAS	MON	MPS	SEAS
1	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
2	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
39	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
40	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

Note:

If the rtrv-trm output in step 7 shows no telnet terminals, skip steps 8 through 11, and go to step 12.

8. Display the status of the **IPSMs** by entering the rept-stat-card command with the card location of each **IPSM** shown in the output of step 7.

rept-stat-card:loc=2107

This is an example of the possible output.

rlghncxa03w 06-10-01 16:43:42 GMT EAGLE5 36.0.0 CARD VERSION TYPE GPL PST SST AST 2107 114-001-000 IPSM IPS IS-NR Active _ _ _ _ _ = No Alarms. ALARM STATUS = 002 - 122 - 000BPDCM GPL IMT BUS A = Conn IMT BUS B = Conn Command Completed. rept-stat-card:loc=2108 This is an example of the possible output. rlghncxa03w 06-10-01 16:43:42 GMT EAGLE5 36.0.0

CARD	VERSION	TYPE	GPL	PST	SST
2108	114-001-000	IPSM	IPS	IS-NR	Active

ALARM STATUS	= No Alarms.
BPDCM GPL	= 002-122-000
IMT BUS A	= Conn
IMT BUS B	= Conn
Command Completed.	

rept-stat-card:loc=2111

This is an example of the possible output.

rlghncxa03w 06-10-01 16:43:42 GMT EAGLE5 36.0.0 CARD VERSION TYPE GPL PST SST AST 2111 114-001-000 IPSM IPS IS-NR Active -----

ALARM STATUS = No Alarms.



```
BPDCM GPL = 002-122-000
IMT BUS A = Conn
IMT BUS B = Conn
Command Completed.
```

If all the **IPSMs** are out of service, shown by the entry OOS-MT-DSBLD in the PST column, skip steps 9 and 10, and go to step 11.

9. Display the status of the terminals by entering the rept-stat-trm command.

This is an example of the possible output.

rlghn	cxa03w	06-10-01	15:08:45	GMT	EAGLE5	36.0.0
TRM	PST	S	SST		AST	
1	IS-NR	I	Active			
2	IS-NR	I	Active			
3	IS-NR	I	Active			
4	IS-NR	I	Active			
5	IS-NR	I	Active			
6	IS-NR	I	Active			
7	IS-NR	I	Active			
8	IS-NR	I	Active			
9	IS-NR	I	Active			
10	IS-NR	I	Active			
11	IS-NR	I	Active			
12	IS-NR	I	Active			
13	IS-NR	I	Active			
14	IS-NR	I	Active			
15	IS-NR	I	Active			
16	IS-NR	I	Active			
17	IS-NR	I	Active			
18	IS-NR	I	Active			
19	IS-NR	I	Active			
20	IS-NR	I	Active			
21	IS-NR	I	Active			
22	IS-NR	I	Active			
23	IS-NR	I	Active			
24	IS-NR	I	Active			
25	IS-NR	I	Active			
26	IS-NR	I	Active			
27	IS-NR	I	Active			
28	IS-NR	I	Active			
29	IS-NR	I	Active			
30	IS-NR	I	Active			
31	IS-NR	I	Active			
32	IS-NR	I	Active			
33	IS-NR	I	Active			
34	IS-NR	I	Active			
35	IS-NR	I	Active			
36	IS-NR	I	Active			
37	IS-NR	I	Active			
38	IS-NR	I	Active			
39	IS-NR	I	Active			
40	IS-NR	I	Active			

Command Completed.

Note:

If all the terminals associated with the **IPSMs** being taken out of service are out of service, shown by the entry OOS-MT-DSBLD in the PST column, skip step 10 and go to step 11.

10. Place the terminals associated with the **IPSMs** being taken out of service using the rmv-trm command with the terminal number shown in step 7.

For this example, enter these commands.

rmv-trm:trm=17 rmv-trm:trm=18 rmv-trm:trm=19 rmv-trm:trm=20 rmv-trm:trm=21 rmv-trm:trm=22 rmv-trm:trm=23 rmv-trm:trm=24 rmv-trm:trm=25 rmv-trm:trm=26 rmv-trm:trm=27 rmv-trm:trm=28 rmv-trm:trm=29 rmv-trm:trm=30 rmv-trm:trm=31 rmv-trm:trm=32 rmv-trm:trm=33 rmv-trm:trm=34 rmv-trm:trm=35 rmv-trm:trm=36 rmv-trm:trm=37 rmv-trm:trm=38 rmv-trm:trm=39 rmv-trm:trm=40



Caution:

Placing these terminals out of service will disable any Telnet sessions running on these terminals.

If the status of any terminals associated with the **IPSM** being removed shown in the PST field in step 9 is OOS-MT-DSBLD (out-of-service maintenance disabled), the terminal is already out of service and the rmv-trm command does not need to be executed for that terminal.

When these commands have successfully completed, this message should appear.

rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Inhibit message sent to terminal

```
rlghncxa03w 06-10-01 15:08:45 GMT EAGLE5 36.0.0
Command Completed.
```

11. Place the **IPSMs** out of service using the rmv-card command, specifying the card location of the IPSM.

For this example, enter this command.

```
rmv-card:loc=2107
rmv-card:loc=2108
rmv-card:loc=2111
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
Card has been inhibited.
```

12. The controlled feature enabled in step 6 must be activated using the chg-ctrlfeat command, specifying the controlled feature part number used in step 6 and the status=on parameter.

For this example, enter this command.

chg-ctrl-feat:partnum=893400001:status=on

When the chg-ctrl-feat command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CHG-CTRL-FEAT: MASP B - COMPLTD

13. Verify the changes by entering the rtrv-ctrl-featcommand with the part number specified in step 12.

```
rtrv-ctrl-feat:partnum=893400001
```



The following is an example of the possible output.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled: Feature Name Partnum Status Quantity EAGLE OAM IP Security 893400001 on ----

Note:

If steps 7 through 11 were not performed, skip steps 14 and 15, and go to step 16.

14. Place the terminals that were taken out of service in step 10 back into service by entering the rst-trm command with the terminal numbers specified in step 10.

For this example, enter these commands.

rst-trm:trm=17 rst-trm:trm=18 rst-trm:trm=19 rst-trm:trm=20 rst-trm:trm=21 rst-trm:trm=22 rst-trm:trm=23 rst-trm:trm=24 rst-trm:trm=25 rst-trm:trm=26 rst-trm:trm=27 rst-trm:trm=28 rst-trm:trm=29 rst-trm:trm=30 rst-trm:trm=31 rst-trm:trm=32 rst-trm:trm=33 rst-trm:trm=34 rst-trm:trm=35 rst-trm:trm=36 rst-trm:trm=37 rst-trm:trm=38 rst-trm:trm=39



```
rst-trm:trm=40
```

15. Place the **ISPMs** back into service by entering the rst-card command with the card locations specified in step 11.

For this example, enter this command.

```
rst-card:loc=2107
rst-card:loc=2108
rst-card:loc=2111
```

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-01 09:12:36 GMT EAGLE5 36.0.0
Card has been allowed.
```

When the **IPSMs** are placed into service with the rst-card command, **UIM** 1494, **SSH** Host Keys Loaded, is displayed. **UIM** 1494 contains the public host key fingerprint which is used to establish a secure connection with an **SSH** client. If the secure connection is to be made with the **FTRA**, the public host key fingerprint displayed in **UIM** 1494 must be added to the hosts.xml file in the **FTRA**. Record the public host key fingerprint information displayed in **UIM** 1494 if a secure connection to the **FTRA** will be made. For more information about editing the hosts.xml file on the **FTRA**, see **FTP** *Table Base Retrieval User* 's *Guide*.

 Backup the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.









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Sheet 4 of 4

Unmate IP Security for Terminal and Measurements

EAGLE Release 45.0 provides the capability to unmate the IP Security for Telnet and FTP. The Terminal security (SSH) will be controlled by an option 'ssh' in the Security Default table. This option can be set to ON to enable **SSH** or set to OFF to disable SSH. The chg-secu-dflt command is modified to support the parameter 'ssh' that turns SSH ON/OFF. The parameter is optional, and defaults to ON. Example command:

chg-secu-dflt:ssh=on

Security for the FTP interfaces will be controlled by an option Security in the FTP Server table. Each option in the table defines the parameters for a specific FTP interface. The parameter Security can be turned ON/OFF for each server entry independently. When the OAM IP Security feature is ON and the FTP interface Security parameter is ON, the interface will be protected by data encryption.

The Security Parameter can be set when an interface is initially created with the entftp-serv command, or changed for an existing interface with the chg-ftp-serv command. The parameter is optional, and defaults to ON. Example commands:

```
ent-ft-
serv-:ipaddr=x.x.x.x:login=user:app=dist:prio=1=login=eagle:path
="/path":security=on and
```

chg-ftp-serv:ipaddr=x.x.x.x:app=dist:security=on.

Activating the 15 Minute Measurements Controlled Feature

This procedure is used to enable and turn on the 15 Minute Measurements controlled feature, using the feature's part number and a feature access key. This feature allows EAGLE measurements to be collected every 15 minutes.

To enable and turn on the 15 Minute Measurements controlled feature, the following requirements must be met:

- The Measurements Platform feature must be on, or the Integrated Measurements feature must be enabled and turned on.
- The EAGLE must be configured to use the Measurements Platform, or the Integrated Measurements feature.
- If the Measurements Platform is being used, MCPMs must be provisioned in the database, and the state of all these **MCPMs** must be **IS-NR**.

The enable-ctrl-feat, ent-serial-num, and chg-ctrl-feat commands are used to enable and turn on the 15 Minute Measurements controlled feature using the feature's part number and a feature access key.

The feature access key for the 15 Minute Measurements controlled feature is based on the feature's part number and the serial number of the EAGLE, making the feature access key site-specific.

The enable-ctrl-feat command enables the feature by inputting the feature's access key and the feature's part number with these parameters:



: fak – The feature access key provided by Oracle. The feature access key contains 13 alphanumeric characters and is not case sensitive.

:partnum – The Oracle-issued part number of the 15 Minute Measurements controlled feature, 893012101.

The enable-ctrl-feat command requires that the database contain a valid serial number for the EAGLE, and that this serial number is locked. This can be verified with the rtrv-serial-num command. The EAGLE is shipped with a serial number in the database, but the serial number is not locked. The serial number can be changed, if necessary, and locked once the EAGLE is on-site, with the ent-serial-num command. The ent-serial-num command uses these parameters.

 $: {\tt serial}$ – The serial number assigned to the EAGLE. The serial number is not case sensitive.

: lock – Specifies whether or not the serial number is locked. This parameter has only one value, yes, which locks the serial number. Once the serial number is locked, it cannot be changed.

Note:

To enter and lock the EAGLE's serial number, the ent-serial-num command must be entered twice, once to add the correct serial number to the database with the serial parameter, then again with the serial and the lock=yes parameters to lock the serial number. You should verify that the serial number in the database is correct before locking the serial number. The serial number can be found on a label affixed to the control shelf (shelf 1100).

This feature cannot be temporarily enabled (with the temporary feature access key).

Once this feature has been enabled, the feature must be turned on with the chgctrl-feat command. The chg-ctrl-feat command uses these parameters:

:partnum – The Oracle-issued part number of the 15 Minute Measurements controlled feature, 893027701.

:status=on – used to turn the 15 Minute Measurements controlled feature on.

Once the 15 Minute Measurements controlled feature has been turned on, it be cannot be turned off.

The status of the features in the EAGLE is shown with the <code>rtrv-ctrl-feat</code> command.

After the 15 Minute Measurements controlled feature is enabled and turned on, the 15 minute measurement collection option in the measurement options table must be turned on.

1. Display the status of the 15 Minute Measurements controlled features by entering the rtrv-ctrl-feat command.



The following is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled: Feature Name Partnum Status Quantity Command Class Management 893005801 off ____ LNP Short Message Service 893006601 on ____ Intermed GTT Load Sharing 893006901 off ____ XGTT Table Expansion 893006101 off ____ XMAP Table Expansion 893007710 on 3000 2000 Large System # Links 893005910 on Routesets 893006401 on 6000 ____ 15 Minute Measurements 893012101 off The following features have been temporarily enabled: Feature Name Partnum Status Quantity Trial Period Left Zero entries found. The following features have expired temporary keys: Feature Name Partnum

Zero entries found.

If the rtrv-ctrl-feat output shows that the 15 Minute Measurements controlled feature is enabled, and its status is on, no further action is necessary.

If the 15 Minute Measurements controlled feature is enabled, and its status is off, continue the procedure with 7.

Note:

If the rtrv-ctrl-feat output in 1 shows any controlled features, continue the procedure with 6. If the rtrv-ctrl-feat output shows only the HC-MIM SLK Capacity feature with a quantity of 64, 2 through 5 must be performed.

2. Display the serial number in the database with the rtrv-serial-num command.

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
System serial number = ntxxxxxxxxxxx
System serial number is not locked.
rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
Command Completed



Note:

If the serial number is correct and locked, continue the procedure with 6. If the serial number is correct but not locked, continue the procedure with 5. If the serial number is not correct, but is locked, this feature cannot be enabled and the remainder of this procedure cannot be performed. Contact the Customer Care Center to get an incorrect and locked serial number changed. Refer to My Oracle Support (MOS) for the contact information. The serial number can be found on a label affixed to the control shelf (shelf 1100).

3. Enter the correct serial number into the database using the ent-serial-num command with the serial parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's correct serial number>

When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD

4. Verify that the serial number entered into 3 was entered correctly using the rtrvserial-num command.

This is an example of the possible output.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 System serial number = nt00001231

System serial number is not locked.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0
Command Completed

If the serial number was not entered correctly, repeat 3 and 4 and re-enter the correct serial number.

5. Lock the serial number in the database by entering the ent-serial-num command with the serial number shown in 2, if the serial number shown in 2 is correct, or with the serial number shown in 4, if the serial number was changed in 3, and with the lock=yes parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's serial number>:lock=yes



When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 ENT-SERIAL-NUM: MASP A - COMPLTD

6. Enable the 15 Minute Measurements controlled feature by entering the enablectrl-feat command.

For this example, enter this command.

enable-ctrl-feat:partnum=893012101:fak=<feature access key>

This feature cannot be enabled with a temporary feature access key.



The values for the feature access key (the fak parameter) are provided by Oracle. If you do not have the controlled feature part number or the feature access key for the feature you wish to enable, contact your Oracle Sales Representative or Account Representative.

When the enable-ctrl-feat command has successfully completed, this message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 ENABLE-CTRL-FEAT: MASP B - COMPLTD

7. Display the quantity of signaling links that are provisioned in the EAGLE by entering the rtrv-tbl-capacity command.

This is an example of the possible output.

rlghncxa03w 10-04-19 21:16:37 GMT EAGLE5 42.0.0 SLK table is (7 of 1200) 1% full

Note:

The rtrv-tbl-capacity command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-tbl-capacity command, refer to the rtrvtbl-capacity command description in *Commands User's Guide*.

8. To enable the 15 Minute Measurements controlled feature, either the Measurements Platform feature must be on and the Measurements Platform option (PLATFORMENABLE) must be on, or the Integrated Measurements feature must be enabled and turned on and the measurement collection option for the E5-MCAP card (OAMHCMEAS) must be on. If the EAGLE contains more than 1200 signaling links, shown in 7, the Measurements Platform feature



must be used. If the EAGLE contains 1200 signaling links or less, either the Measurements Platform feature or the Integrated Measurements feature can be used. Verify whether or nor the Measurements Platform option is enabled (PLATFORMENABLE = on), or the measurement collection option for the E5-MCAP card (OAMHCMEAS) must be on using the rtrv-measopts command.

The following is an example of the possible output.

Note:

The rtrv-measopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-measopts command, see the rtrv-measopts command description in *Commands User's Guide*.

If the Measurements Platform option is enabled, continue the procedure with 11.

If the Measurements Platform option is not enabled and the Measurements Platform is required, or you wish to use the Measurements Platform, continue the procedure with 9.

If the Integrated Measurements feature will be used, continue the procedure by performing one of these steps.

- If the measurement collection option for the E5-MCAP card (OAMHCMEAS) is on, continue the procedure with 11.
- If the measurement collection option for the E5-MCAP card (OAMHCMEAS) is off, continue the procedure by performing one of these steps.
 - If the Integrated Measurements feature is not enabled or turned on, shown in the rtrv-ctrl-feat output in 1, perform the Configuring the Integrated Measurements Feature procedure to configure the Integrated Measurements feature. Continue the procedure with 11.
 - If the Integrated Measurements feature is enabled and turned on, continue the procedure with 10.
- 9. Verify whether or not the Measurements Platform feature is on by entering the rtrv-feat command.

If the Measurements Platform feature is on, the entry MEASPLAT = on is shown in the rtrv-feat command output:



Note:

The rtrv-feat command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-feat command, see the rtrv-feat command description in *Commands User's Guide*.

If the Measurements Platform feature is not on, perform the Adding a Measurement Collection and Polling Module (MCPM) procedure to add the required **MCPMs** and to turn the Measurements Platform feature on. After the Measurements Platform is turned on, perform the Configuring the Measurements Platform Feature procedure to configure the Measurements Platform feature. Continue the procedure with 11.

If the Measurements Platform is on, perform the Configuring the Measurements Platform Feature procedure to configure Measurements Platform feature and to enable the Measurements Platform option, if required. Continue the procedure with 11..

10. Turn the measurement collection option for the E5-MCAP card (OAMHCMEAS) on by entering this command.

chg-measopts:oamhcmeas=on

When the chg-measopts command has successfully completed, the following message should appear.

rlghncxa03w 10-04-01 21:16:37 GMT EAGLE5 42.0.0 CHG-MEASOPTS: MASP A - COMPLTD

11. Turn the 15 Minute Measurements controlled feature on using the chg-ctrlfeat command, specifying the 15 Minute Measurements controlled feature part number and the status=on parameter.

Note:

If a 30-minute measurement collection is in progress, the chg-ctrlfeat command will be rejected. Wait until the 30-minute measurement collection has finished before executing the chg-ctrl-feat command.

For this example, enter this command.

chg-ctrl-feat:partnum=893012101:status=on

Note:

Once the 15 Minute Measurements feature is turned on, it cannot be turned off.


When the ${\tt chg-ctrl-feat}$ command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:15:37 GMT EAGLE5 36.0.0 CHG-CTRL-FEAT: MASP B - COMPLTD

12. Verify the changes by entering the rtrv-ctrl-feat command with the part number specified in **11**.

rtrv-ctrl-feat:partnum=893012101

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0 The following features have been permanently enabled: Feature Name Partnum Status Quantity 15 Minute Measurements 893012101 on ----

13. Turn the 15 Minute Measurement collection option on by entering this command.

```
chg-measopts:collect15min=on
```

When the chg-measopts command has successfully completed, the following message should appear.

rlghncxa03w 10-04-01 21:16:37 GMT EAGLE5 42.0.0 CHG-MEASOPTS: MASP A - COMPLTD

14. Verify that the 15 Minute Measurement collection option is on by entering the rtrv-measopts command.

The following is an example of the possible output.

rlghncxa03w 10-04-01 16:02:05 GMT EAGLE5 42.0.0

Note:

The rtrv-measopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-measopts command, see the rtrv-measopts command description in *Commands User's Guide*.

15. Backup the new changes using the chg-db:action=backup:dest=fixed command.



These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure A-3 Activating the 15 Minute Measurements Controlled Feature

Sheet 1 of 4







Sheet 2 of 4



Sheet 3 of 4





Sheet 4 of 4

Clearing a Temporary FAK Alarm

This procedure is used to clear the critical alarm, **UAM** 0368, generated when a a temporary feature access key has expired, using the chg-ctrl-feat command.

The chg-ctrl-feat command uses the following parameters:

:partnum - The part number of the controlled feature that was temporarily enabled and is causing the alarm.

:alarm=clear - Clears UAM 0368, Temp Key(s) have expired.

The controlled feature must have been temporarily enabled and is now in danger of expiration or in an *expired* state.

 Display the controlled feature that has the expired feature access key by entering the rtrv-ctrl-feat:expired=yes command.

The following is an example of the possible output.

```
rlghncxa03w 06-10-01 21:17:37 GMT EAGLE5 36.0.0
The following features have expired temporary keys:
Feature Name Part Num
Command Class Management 893005801
```

2. Clear the EAGLE alarm in the database by entering the chg-ctrl-feat command.

For example, enter this command.

chg-ctrl-feat:partnum=893005801:alarm=clear

When this command has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0 CHG-CTRL-FEAT: MASP A - COMPLTD

3. Verify that the alarm has cleared in the database by using the rtrv-ctrlfeat:expired=yes command.

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0 0367.0181 * SYSTEM Temp Key(s) expiration alarm cleared.

 Backup the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first



BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.

•

Figure A-4 Clearing a Temporary FAK Alarm





Deactivating Controlled Features

This procedure is used to deactivate these controlled features, **Command Class** Management, **IP** User Interface, and Network Security Enhancements using the chgctrl-feat command.

The chg-ctrl-feat command uses the following parameters:

:partnum - The part number of the controlled feature being deactivated.

- Command Class Management 893005801
- Telnet (IP User Interface) 893005701
- Network Security Enhancements 893009101

:status=off - used to deactivate the controlled feature.

The status of the controlled feature being deactivated must be on and is shown with the rtrv-ctrl-feat command.

Caution:

If the SEAS over IP feature is turned off, all SEAS terminal traffic stops.

Caution:

If the **IP** User Interface (TELNET) controlled feature is deactivated, all Telnet sessions supported by this feature will be disabled. No changes can be made to the configuration of the Telnet terminals (terminals 17 through 40). Deactivating this feature will also deactivate **FTP** Retrieve and Replace feature. If the SEAS over IP feature is turned on, the TELNET feature cannot be turned off.

1. Display the controlled features whose status is on by entering the rtrv-ctrl-feat:status=on command.

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:17:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
Command Class Management	893005801	on	
LNP Short Message Service	893006601	on	
Intermed GTT Load Sharing	893006901	on	
XMAP Table Expansion	893007710	on	3000
Large System # Links	893005910	on	2000
Routesets	893006401	on	6000
Telnet	893005701	on	
Network Security Enhance	893009101	on	



The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

The TELNET feature cannot be turned off if the SEAS over IP feature is turned on. If the TELNET (IP User Interface) is not being turned off, go to step 2.

If the TELNET feature is being turned off, and the SEAS over IP feature is not turned on (shown in the rtrv-ctrl-feat output in this step by the entry SEAS over IP), go to step 2.

If the TELNET feature is being turned off, and the SEAS over IP feature is turned on, perform the Turning Off the SEAS Over IP Feature procedure to turn the SEAS over IP feature off. After the SEAS over IP feature has been turned off, go to step 2.

 Deactivate the controlled feature by entering the chg-ctrl-feat command with the status=off parameter.

For example, enter this command.

chg-ctrl-feat:partnum=893005801:status=off

chg-ctrl-feat:partnum=893005701:status=off

chg-ctrl-feat:partnum=893009101:status=off

When each of these commands has successfully completed, the following message should appear.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0 CHG-CTRL-FEAT: MASP A - COMPLTD

3. Verify that the controlled feature has been deactivated by using the rtrv-ctrlfeat:partnum=<controlled feature part number> command.

For this example, enter these commands.

rtrv-ctrl-feat:partnum=893005801

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantityCommand Class Management893005801off----

The following features have been temporarily enabled:



Feature NamePartnumStatus QuantityTrial PeriodLeftZero entries found.

The following features have expired temporary keys:

Feature Name Zero entries found. Partnum

rtrv-ctrl-feat:partnum=893005701

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantityTelnet893005701off----

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

rtrv-ctrl-feat:partnum=893009101

The following is an example of the possible output.

rlghncxa03w 06-10-01 21:16:37 GMT EAGLE5 36.0.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantityNetwork Security Enhance893009101off----

The following features have been temporarily enabled:

Feature NamePartnumStatus QuantityTrial PeriodLeftZero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.



4. Backup the new changes using the chgdb:action=backup:dest=fixedcommand.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.



Figure A-5 Deactivating Controlled Features



Activating the HIPR2 High Rate Mode Feature

This procedure is used to enable and turn on the HIPR2 High Rate Mode feature using the feature's part number and a feature access key.

The feature access key for the HIPR2 High Rate Mode feature is based on the feature's part number and the serial number of the EAGLE, making the feature access key site-specific.

The enable-ctrl-feat command enables the feature by inputting the feature's access key and the feature's part number with these parameters:

:fak – The feature access key provided by Oracle. The feature access key contains 13 alphanumeric characters and is not case sensitive.

:partnum – The Oracle-issued part number of the HIPR2 High Rate Mode feature, 893020101.

The enable-ctrl-feat command requires that the database contain a valid serial number for the EAGLE, and that this serial number is locked. This can be verified with the rtrv-serial-num command. The EAGLE is shipped with a serial number in the database, but the serial number is not locked. The serial number can be changed, if necessary, and locked once the EAGLE is on-site, with the ent-serial-num command. The ent-serial-num command uses these parameters.

:serial – The serial number assigned to the EAGLE. The serial number is not case sensitive.

: lock – Specifies whether or not the serial number is locked. This parameter has only one value, yes, which locks the serial number. Once the serial number is locked, it cannot be changed.

Note:

To enter and lock the EAGLE's serial number, the ent-serial-num command must be entered twice, once to add the correct serial number to the database with the serial parameter, then again with the serial and the lock=yes parameters to lock the serial number. You should verify that the serial number in the database is correct before locking the serial number. The serial number can be found on a label affixed to the control shelf (shelf 1100).

This feature cannot be temporarily enabled (with the temporary feature access key).

Once this feature is enabled, the feature must be turned on with the chg-ctrl-feat command. The chg-ctrl-feat command uses these parameters.

:partnum – The Oracle-issued part number of the HIPR2 High Rate Mode feature, 893020101.

:status=on – used to turn the HIPR2 High Rate Mode feature on.



Caution:

The HIPR2 High Rate Mode feature cannot be turned off if any of these conditions are present.

- The IMT Rate Change sequence is being performed.
- The Extended Bit Rate Test (BERT) is being performed.
- Any of the cards in card locations 9 and 10 in each shelf are being flashed with the init-flash command.

Once the HIPR2 High Rate Mode feature has been turned on, it be can be turned off. For more information on turning the HIPR2 High Rate Mode feature off, perform Turning Off the HIPR2 High Rate Mode Feature.

The status of the features in the EAGLE is shown with the rtrv-ctrl-feat command.

When the HIPR2 High Rate Mode feature is turned on, the throughput of the IMT bus is increased to 2.5 Gbps. If the HIPR2 High Rate Mode feature is not turned on, the throughput of the IMT bus is limited to 1 Gbps. To turn the the HIPR2 High Rate Mode feature on, all the cards in card locations 9 and 10 in each shelf must be HIPR2 cards.

1. Display the status of the controlled features by entering the rtrv-ctrl-feat command. The following is an example of the possible output.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0 The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
Command Class Management	893005801	on	
LNP Short Message Service	893006601	on	
Intermed GTT Load Sharing	893006901	on	
XGTT Table Expansion	893006101	on	400000
XMAP Table Expansion	893007710	off	
Large System # Links	893005910	on	2000
Routesets	893006401	on	6000
HC-MIM SLK Capacity	893012707	on	64

The following features have been temporarily enabled:

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

The following features have expired temporary keys:

Feature Name Zero entries found. Partnum

If the HIPR2 High Rate Mode feature is enabled and turned on, no further action is necessary. This procedure does not need to be performed.



If the HIPR2 High Rate Mode feature is enabled and but not turned on, continue the procedure with 7.

If the HIPR2 High Rate Mode feature is not enabled, continue the procedure by performing one of these steps.

- If the rtrv-ctrl-feat output shows the HC-MIM SLK Capacity feature with a quantity of 64 and other features, continue the procedure with 6.
- If the rtrv-ctrl-feat output shows only the **HC-MIMSLK** Capacity feature with a quantity of 64, continue the procedure with 2.
- 2. Display the serial number in the database with the rtrv-serial-num command. This is an example of the possible output.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
System serial number = nt00001231
System serial number is not locked.
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
Command Completed
```

Note:

If the serial number is correct and locked, continue the procedure with 6. If the serial number is correct but not locked, continue the procedure with 5. If the serial number is not correct, but is locked, this feature cannot be enabled and the remainder of this procedure cannot be performed. Contact the Customer Care Center to get an incorrect and locked serial number changed. Refer to My Oracle Support (MOS) for the contact information. The serial number can be found on a label affixed to the control shelf (shelf 1100).

3. Enter the correct serial number into the database using the ent-serial-num command with the serial parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's correct serial number>

When this command has successfully completed, the following message should appear.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0 ENT-SERIAL-NUM: MASP A - COMPLTD

4. Verify that the serial number entered into 3 was entered correctly using the rtrvserial-num command. This is an example of the possible output.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0 System serial number = nt00001231



System serial number is not locked.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
Command Completed

If the serial number was not entered correctly, repeat 3 and 4 and re-enter the correct serial number.

5. Lock the serial number in the database by entering the ent-serial-num command with the serial number shown in 2, if the serial number shown in 2 is correct, or with the serial number shown in 4, if the serial number was changed in 3, and with the lock=yes parameter.

For this example, enter this command.

ent-serial-num:serial=<EAGLE's serial number>:lock=yes

When this command has successfully completed, the following message should appear.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0 ENT-SERIAL-NUM: MASP A - COMPLTD

6. Enable the HIPR2 High Rate Mode feature with the enable-ctrl-feat command specifying the part number for the HIPR2 High Rate Mode feature and the feature access key. Enter this command.

enable-ctrl-feat:partnum=893020101:fak=<HIPR2 High Rate Mode
feature access key>

The HIPR2 High Rate Mode feature cannot be enabled with a temporary feature access key.

The values for the feature access key (the fak parameter) are provided by Oracle. If you do not have the feature access key for the HIPR2 High Rate Mode feature, contact your Oracle Sales Representative or Account Representative.

When the enable-crtl-feat command has successfully completed, this message should appear.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
ENABLE-CTRL-FEAT: MASP B - COMPLTD

If you do not wish to turn the HIPR2 High Rate Mode feature on at this time, continue the procedure with 9.

If you wish to turn the HIPR2 High Rate Mode feature, continue the procedure with 7.

- 7. To turn the HIPR2 High Rate Mode feature on, all the cards in card locations 9 and 10 in each shelf must be HIPR2 cards. Enter these commands to verify that cards that are in card locations 9 and 10 in each shelf.
 - To verify if HIPR2 cards are in card locations 9 and 10, enter this command.

rept-stat-gpl:gpl=hipr2



This is an example of the possible output.

rlghncxa03w 09-07-01 11:40:26 GMT EAGLE5 41.1.0

GPL	CARD	RUNNING	APPROVED	TRIAL
HIPR2	1309	132-003-000	132-003-000	132-002-000
HIPR2	1310	132-003-000	132-003-000	132-002-000
HIPR2	2109	132-003-000	132-003-000	132-002-000
HIPR2	2100	132-003-000	132-003-000	132-002-000
Command	Complet	ted		

If no cards running the specified GPL are installed, the rept-stat-gpl output shows no entries, as shown in this example.

rlghncxa03w 09-07-01 11:40:26 GMT EAGLE5 41.1.0 GPL CARD RUNNING APPROVED TRIAL Command Completed

If card locations 9 and 10 in all shelves contain HIPR2 cards, continue the procedure with 8.

If card locations 9 and 10 in any shelves contain HMUX or HIPR cards, perform the procedures in *Installation Guide* to replace the HMUX or HIPR cards with HIPR2 cards. After the HIPR2 cards have been installed, continue the procedure with 8.

8. Turn the HIPR2 High Rate Mode feature on with the chg-ctrl-feat command specifying the part number for the HIPR2 High Rate Mode feature and the status=on parameter. Enter this command.

Caution:

The HIPR2 High Rate Mode feature cannot be turned off if any of these conditions are present.

- The IMT Rate Change sequence is being performed.
- The Extended Bit Rate Test (BERT) is being performed.
- Any of the cards in card locations 9 and 10 in each shelf are being flashed with the init-flash command.

chg-ctrl-feat:partnum=893020101:status=on

When the chg-crtl-feat command has successfully completed, this message should appear.

```
rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
CHG-CTRL-FEAT: MASP B - COMPLTD
```



9. Verify the changes by entering the rtrv-ctrl-featcommand with the HIPR2 High Rate Mode feature part number. Enter this command.

rtrv-ctrl-feat:partnum=893020101

The following is an example of the possible output.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
The following features have been permanently enabled:

Feature Name	Partnum	Status	Quantity
HIPR2 High Rate Mode	893020101	on	

The following features have been temporarily enabled:

Feature Name Partnum Status Quantity Trial Period Left Zero entries found. The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

 Backup the new changes using the chg-db:action=backup:dest=fixed command. These messages should appear, the active Maintenance and Administration Subsystem Processor (MASP) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure A-6 Activating the HIPR2 High Rate Mode Feature







Notes:

1. If the *rtrv-ctrl-feat* output shows only the HC-MIM SLK Capacity feature with a quantity of 64, the answer to this question is no and the Eagle 5 ISS's serial number must be verified. This is the default entry for the *rtrv-ctrl-feat* output. This entry is shown whether or not the Eagle 5 ISS's serial number is in the database.

2. If the serial number is locked, it cannot be changed.

3. If the serial number is not locked, the controlled feature cannot be enabled.

4. The serial number can be found on a label affixed to the control shelf (shelf 1100).



Sheet 2 of 5







Sheet 3 of 5







Sheet 4 of 5





Sheet 5 of 5

Turning Off the HIPR2 High Rate Mode Feature

This procedure is used to turn off the HIPR2 High Rate Mode feature, using the ${\tt chg-ctrl-feat}$ command.

Caution:

The HIPR2 High Rate Mode feature cannot be turned off if any of these conditions are present.

- The IMT Rate Change sequence is being performed.
- The Extended Bit Rate Test (BERT) is being performed.
- The total provisioned system TPS value is greater than 500,000.
- Any of the cards in card locations 9 and 10 in each shelf are being flashed with the init-flash command.

The chg-ctrl-feat command uses the following parameters:

:partnum - The part number of the HIPR2 High Rate Mode feature, 893020101.

:status=off - used to turn off the HIPR2 High Rate Mode feature.

The status of the HIPR2 High Rate Mode feature must be on and is shown with the rtrv-ctrl-feat command.

Caution:

If the HIPR2 High Rate Mode feature is turned off, the throughput rate for the IMT bus is limited to 1 Gbps.

1. Display the status of the HIPR2 High Rate Mode feature by entering the rtrvctrl-feat:partnum=893020101 command.

The following is an example of the possible output.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantityHIPR2 High Rate Mode893020101on----

The following features have been temporarily enabled:

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



The following features have expired temporary keys:

Feature Name Zero entries found.

Partnum

If the status of the HIPR2 High Rate Mode feature is off, or if the HIPR2 High Rate Mode feature is not enabled, this procedure cannot be performed.

2. Display the maximum system IP TPS value by entering the rtrv-tps command.

The following is an example of the possible output.

rlghncxa03w 10-07-28 21:15:37 GMT EAGLE5 42.0.0

CARD	NUM	NUM	RSVD	MAX
TYPE	CARDS	LINKS	TPS	TPS
IPGW	9	8	32000	40000
IPSG	100	16	80000	80000
IPLIM	1	0	0	0
ATM	0	0	0	0

Total provisioned System TPS (120000 of 500000) 24%

Command Completed.

If the maximum system IP TPS value is greater than 500,000, this procedure cannot be performed.

3. Turn off the HIPR2 High Rate Mode feature by entering the chg-ctrl-feat command with the status=off parameter.

For example, enter this command.

chg-ctrl-feat:partnum=893020101:status=off

When this command has successfully completed, the following message should appear.

rlghncxa03w 09-07-28 21:16:37 GMT EAGLE5 41.1.0 CHG-CTRL-FEAT: MASP A - COMPLTD

4. Verify that the HIPR2 High Rate Mode feature has been turned off by using the rtrv-ctrl-feat:partnum=893020101 command. The following is an example of the possible output.

rlghncxa03w 09-07-28 21:15:37 GMT EAGLE5 41.1.0
The following features have been permanently enabled:

Feature NamePartnumStatusQuantityHIPR2 High Rate Mode893020101off----



The following features have been temporarily enabled:

Feature NamePartnumStatusQuantityTrialPeriod LeftZero entries found.

The following features have expired temporary keys:

Feature Name Partnum Zero entries found.

5. Backup the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

BACKUP (FIXED) : MASP A - Backup starts on active MASP. BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk complete. BACKUP (FIXED) : MASP A - Backup starts on standby MASP. BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk complete.





Figure A-7 Turning Off the HIPR2 High Rate Mode Feature



В

Setting Up a Secure Telnet Connection to the EAGLE using PuTTY

Appendix B, Setting Up a Secure Telnet Connection to the EAGLE using PuTTY contains the procedure for setting a secure telnet connection to the EAGLE using PuTTY.

Setting Up a Secure Telnet Connection to the EAGLE using PuTTY

This appendix describes the steps to set up a Telnet connection to to the EAGLE using the PuTTY client program.

The PuTTY client program must be installed on the machine that will be connecting to the EAGLE before this procedure can be performed. The PuTTY client program can be obtained at this website.

http://www.chiark.greenend.org.uk/~sgtatham/putty/download.html

Note:

The examples shown in this procedure are based on version 0.58 of the PuTTY client program.

 Start the PuTTY client program by double clicking the PuTTY icon on the desktop. The PuTTY Configuration Window is displayed. See Figure B-1.


🛣 PuTTY Configura	tion	
Category:		
Session	^	Basic options for your PuTTY session Specify your connection by host name or IP address
I erminal Keyboard Bell		Host Name (or IP address) Port 192.168.54.191 22
Features		Protocol: ◯ <u>R</u> aw ◯ <u>I</u> elnet ◯ Rlogin ⊙ <u>S</u> SH
Appearance Behaviour Translation		Load, save or delete a stored session Sav <u>e</u> d Sessions
- Selection	≡	sships
 Connection Data Proxy Telnet Rlogin 		Default Settings sships Save Delete
⊡- SSH Kex Auth X11 Tunnels	~	Close <u>w</u> indow on exit: Always ③ Never ① Only on clean exit
About		<u>Open</u> <u>C</u> ancel

Figure B-1 PuTTY Configuration Window - Initial Session Setup

- 2. Select Session in the Category list window in the PuTTY Configuration window.
- 3. Enter the IP address of the IPSM in the EAGLE that is provisioned as a secure SSHD server in the Host Name (or IP Address) box.

Enter 22 in the **Port** box.

- 4. Click the **SSH** radio button for the **Protocol** selection.
- 5. Enter a name for this session in the **Saved Sessions** box, for example, sships.
- 6. Click the Never radio button for the Close window on exit option.
- 7. Click the **Save** button to save this session.

For this example, clicking the Save button saves the sships session.

8. Select Connection > SSH in the Category list window in the PuTTY Configuration window.

See Figure B-2.



🔀 PuTTY Configurati	on 💌
Category:	
🖃 Session 🧧	Options controlling SSH connections
Logging	Data to send to the server
Keuboard	<u>R</u> emote command:
Bell	
- Features	Protocol options
Window	Don't allocate a pseudo-terminal
- Appearance - Rehaviour	✓ Don't start a shell or command at all
Translation	<u> </u>
Selection	Preferred SSH protocol version:
	O1 only O <u>1</u> O <u>2</u> ⊙ <u>2 only</u>
□ Lonnection	Encryption options
Proxy	Encryption cipher <u>s</u> election policy:
Telnet	AES (SSH-2 only)
Rlogin	3DES
E-55H	warn below here Down
Auth	
X11	Enable legacy use of single-DES in SSH-2
Tunnels	
<u>A</u> bout	<u>O</u> pen <u>C</u> ancel

Figure B-2 PuTTY Configuration Window - SSH Connection Setup

9. Click the 2 only radio button in the Preferred SSH protocol version: section of the PuTYY Configuration window.

Click the **Don't start a shell or command at all** checkbox in the Protocol options section of the **PuTTY Configuration** window. See Figure B-2.

10. Select **Connection > SSH > Auth**.

Verify that the checkboxes are not checked. Verify that the **Private key file for authentication** text box is empty. See Figure B-3.



🖹 PuTTY Configur	atior	
Category:		
 Logging Terminal Keyboard Bell Features Window Appearance Behaviour Translation Selection Colours Connection Data Proxy Telnet Rlogin SSH Kex Auth X11 Tunnels Bugs 		Options controlling SSH authentication Authentication methods Attempt TIS or CryptoCard auth (SSH-1) Attempt "keyboard-interactive" auth (SSH-2) Authentication parameters Allow agent forwarding Allow attempted changes of username in SSH-2 Private key file for authentication: Browse
About		<u> </u>

Figure B-3 PuTTY Configuration Window - SSH Auth Setup

11. Select **Connection > SSH > Tunnels**.

Click the Local ports accept connections from other hosts check box in the **Port Forwarding** section of the **PuTTY Configuration** window (Figure B-4), to accept connections from other hosts.



🖹 PuTTY Configura	ition							
Category:								
Logging	^	Options	controlling SSH po	rt forwarding				
🖻 Terminal		Port forwarding						
Keyboard		✓ Local ports accept connections from other hosts						
Eestures		Remote ports do the same (SSH-2 only)						
□ Window		Forwarded ports:		Bemove				
Appearance								
Behaviour								
Translation								
Selection		Add new forward	ed port:					
	=	Source port	27000	bbA				
Data								
Proxy		Destination	127.0.0.1:23					
Telnet		<u>● L</u> ocal	O Re <u>m</u> ote	O Dynamic				
- Rlogin		 Auto 	O IPv4	O IPv6				
E SSH								
Auth								
-X11								
- Tunnels								
Bugs	Y							
About			<u>O</u> pen	<u>C</u> ancel				

Figure B-4 PuTTY Configuration Window - SSH Tunnel/Port Forwarding Setup

12. In the Add new forwarded port section of the PuTTY Configuration window (Figure B-4), click the Local radio button.

Enter the forwarding port on the local machine in the **Source port** box. The **Source port** value must be greater than 1024 and must be available.

 The Destination box in the Add new forwarded port section of the PuTTY Configuration window (Figure B-4) contains the IP address and port of the remote machine.

The forwarding port on the local machine communicates with the IP address and port shown in the **Destination** box. Enter the IP address and port of the remote machine in the **Destination** box.

The forwarding port on the local machine communicates with the IP address and port shown in the **Destination** box. Enter 127.0.0.1:23 in the **Destination** box.

14. Click the **Add** button in the **Add new forwarded port** section of the **PuTTY Configuration** window to complete adding the forwarded port information.

The forwarding port (**Source port** value) and the IP address and port of the remote machine (the **Destination** value) appear in the **Forwarded ports:** box and the **Source port** and **Destination** boxes are empty. See Figure B-5.



🖹 PuTTY Configura	tion							
Category:								
Logging	^	Options c	ontrolling SSH pa	ort forwarding				
🖃 Terminal		Port forwarding						
Keyboard		Local ports accept connections from other hosts						
Bell		Remote ports of	do the same (SSH	1-2 only)				
- Window		Forwarded ports:	·	Bemove				
Appearance								
Behaviour		L27000 127.0.	0.1:23					
- Translation								
Selection		Add new forwarde	d port:					
Connection	=	Source port	·					
Data								
Proxy		Destination						
Telnet		⊙ <u>L</u> ocal	◯ Re <u>m</u> ote	⊖ Dynamic				
Rlogin		 Auto 	O IPv4	O IPv6				
⊡-SSH								
Auth								
- X11								
Tunnels								
Bugs	~							
About			<u>O</u> pen	<u>C</u> ancel				

Figure B-5 PuTTY Configuration Window - SSH Tunnel/Port Forwarding Completion

- **15.** Select **Session** in the **Category** list window in the **PuTTY Configuration** window. See Figure B-1. Click the **Save** button.
- **16.** Click the **Open** button in the **PuTTY Configuration** window.

The dialog box shown in Figure B-6 appears. Click the **Yes** button.

Figure B-6 Key Acceptance Dialog Box

PuTTY S	ecurity Alert				×
	The server's host key have no guarantee to think it is. The server's rsa2 key ssh-rsa 1024 37:ae:5 If you trust this host, PuTTY's cache and If you want to carry of adding the key to the If you do not trust this connection.	y is not cache hat the server i2:6a:59:72:1d hit Yes to add carry on conn in connecting s cache, hit No s host, hit Can	d in the r is the co the key ecting. just onc cel to ab	registry. You omputer you 4:80:18:4d:E to e, without pandon the	of:ea:16
	Yes	No	Can	icel	



The Login window is displayed. See Figure B-7.

Figure B-7 PuTTY Login Window

🚅 192.168.54.191 - PuTTY		_ 🗆 🗵
login as:		×

17. Press the **Enter** key.

Verify that the screen is displayed as shown in Figure B-8.





Press the **Enter** key at the prompt to allow an empty login. Minimize this window.



18. Initiate a telnet connection to the local host at the forwarded port configured in step 14 (see Figure B-5).

At the prompt, enter the telnet command with the **IP** address and Source port value shown in Figure B-5. For this example, enter the telnet command with the **IP** address 127.0.0.1 and the source port value 27000, as shown in Figure B-9. Press the **Enter** key.

Figure B-9 Telnet Connection to Local Host Forwarded Port





- **19.** The connection to the EAGLE is established and functions as any other telnet terminal connected to the EAGLE.
- **20.** Verify that all the eight telnet connections assigned to this IPSM can be opened and all EAGLE commands that are allowed to be executed from a telnet terminal can be executed from the telnet terminals assigned to the IPSM.

This procedure is finished.



C Setting Up a Secure Telnet Connection to the EAGLE using OpenSSH

Appendix C, Setting Up a Secure Telnet Connection to the EAGLE using OpenSSH describes the procedures for setting a secure telnet connection to the EAGLE using OpenSSH.

Introduction

This appendix contains the procedures for establishing a secure telnet connection to the EAGLE using OpenSSH. Perform these procedures.

- If a Windows machine will be used to make the connection, perform these procedures.
 - Install the Windows OpenSSH Software to install the software.
 - Establishing a Secure Telnet Connection to the EAGLE using Windows OpenSSH to establish the connection.
- If a UNIX/Solaris machine will be used to make the connection, perform these procedures.
 - Install the UNIX/Solaris OpenSSH Software to install the software.
 - Establishing a Secure Telnet Connection to the EAGLE using UNIX/Solaris
 OpenSSH to establish the connection.

Before establishing the secure connection to the EAGLE, the EAGLE needs to be configured with these items.

- IPSMs that are in service and containing IP addresses for each IPSM. The IP router on the IPSM must be configured if the client is using a different subnet.
- The Eagle OA&M Security Enhancement feature must be enabled and turned on.

Enter these commands on the EAGLE to verify the IPSM and feature configuration.

- rtrv-ip-lnk shows the IP addresses assigned to the IPSM, in the IPADDR column
- rtrv-ip-card shows the IP router, in the DEFROUTER field.
- rept-stat-card shows the state of the IPSM, in the PST column
- pass:loc=<IPSM card Location>:cmd="netstat -a" shows the state of the ports 22 and 23 on the IPSM, in the (state) column. If the IPSM is configured correctly, the state of these ports will be LISTEN.
- rtrv-ctrl-feat shows whether or not the Eagle OA&M Security Enhancement feature is enabled and turned on.

Perform the Adding an E5-IPSM procedure to configure the IP addresses of the IPSM, the IP router, and to put the IPSM in service. Perform the Activating the EAGLE OA&M



IP Security Enhancement Controlled Feature to enable and turn on the Eagle OA&M Security Enhancement feature.

Install the Windows OpenSSH Software

To install the software on a Windows machine, perform these steps.

- Go to this site: http://sourceforge.net/project/showfiles.php? group_id103886&package_id=111688.
- 2. Select the setupssh381-20040709.zip file and download the file.
- After the file has been downloaded, run the installer and install all the components. The recommended folder for installing the components is C:\OpenSSH.
 After installing the software, this warning may be displayed.

Figure C-1 OpenSSH Warning Window



Click the OK button and perform the Establishing a Secure Telnet Connection to the EAGLE using Windows OpenSSH procedure.

Establishing a Secure Telnet Connection to the EAGLE using Windows OpenSSH

To establish a secure telnet connection to the EAGLE using OpenSSH, perform these steps.

- 1. Open two DOS windows.
- 2. In DOS window 1, go to the bin folder in the folder where the OpenSSH software was installed.

For this example, enter this command

cd C:\OpenSSH\bin

- 3. In DOS window 1, enter the ssh command with these options and values.
 - -N once the authentication is complete, the ssh program executes in the background, meaning the prompt should be returned so that the telnet command can be entered.
 - -f
 - -L
 - the local/forwarding port number, for this example, 23000



- the local loopback address, 127.0.0.1:23. Port 23 is reserved for ssh.
- The IP address of the EAGLE IPSM. For this example, 10:253.104.36.

For this example, enter this command.

ssh -N -f -L 23000:127.0.0.1:23 10:253.104.36

Note:

- a. When issuing the ssh command, if the IPSM on the EAGLE has undergone a hard reset, the ssh key stored in the local_host file must be purged.
- b. If you are making the connection to the EAGLE for the first time, and you are prompted to accept the ssh key, accept the ssh key and proceed to 4
- In DOS window 2, enter the telnet command with the the local loopback address, without the port number, the local/forwarding port number specified in 3. for this example, enter this command.

telnet 127.0.0.1 23000

- 5. When the Eagle prompt is received in DOS window 2, choose an EAGLE terminal and login with your EAGLE username and password.
- If you wish to establish another secure telnet connection to the EAGLE, perform 3 with a different local/forwarding port number, then perform 4 using the local/ forwarding port number specified in 3.
- To logout of the EAGLE and close the secure telnet connection, perform these actions.
 - At the EAGLE, enter the logout command.
 - Press the Ctrl+] keys to receive the telnet prompt.
 - Enter quit.
 - The prompt in DOS window 2 goes to C:\.
 - The ssh command in DOS window 1 goes away and the prompt returns to $\C:$.

Install the UNIX/Solaris OpenSSH Software

To install the software on a UNIX/Solaris machine, perform these steps.

1. The software can also be found at various mirror sites. These sites can be found at this address:

http://www.openssh.org/portable.html#http

If you wish to use one of the other mirror sites, select the closest mirror site.

- 2. Download this file, openssh-3.7.1pl.tar.gz, from the site selected in 1.
- 3. After the file has been downloaded, run the installer and install all the components.



After the software has been installed, perform the Establishing a Secure Telnet Connection to the EAGLE using UNIX/Solaris OpenSSH procedure.

Establishing a Secure Telnet Connection to the EAGLE using UNIX/Solaris OpenSSH

To establish a secure telnet connection to the EAGLE using OpenSSH from a UNIX/ Solaris machine, perform these steps.

- 1. Open an Xterm window.
- 2. In the Xterm window, go to the bin folder in the folder where the OpenSSH software was installed.

For this example, enter this command

cd <install path>/OpenSSH/bin

- 3. In the Xterm window, enter the ssh command with these options and values.
 - -N once the authentication is complete, the ssh program executes in the background, meaning the prompt should be returned so that a second command can be entered following the semicolon.
 - -f
 - -L
 - the local/forwarding port number, for this example, 23000
 - the local loopback address, 127.0.0.1:23. Port 23 is reserved for ssh.
 - The IP address of the EAGLE IPSM. For this example, 10:253.104.36.
 - The telnet command with the local loopback address, without the port number, and the local/forwarding port number.

For this example, enter this command.

```
ssh -N -f -L 23000:127.0.0.1:23 10:253.104.36; telnet 127.0.0.1 23000
```

Note:

- a. On Solaris 9 and later, SunSSH is installed. SunSSH is not compatible with the EAGLE secure Telnet terminals. If you have any questions about which version of ssh in being invoked, enter the Unix command which ssh to ensure that OpenSSH is being used instead of the Sun version.
- b. When issuing the ssh command, if the IPSM on the EAGLE has undergone a hard reset, the ssh key stored in the local_host file must be purged.
- c. If you are making the connection to the EAGLE for the first time, and you are prompted to accept the ssh key, accept the ssh key and proceed to 4.

- 4. When the Eagle prompt is received in the Xterm window, choose an EAGLE terminal and login with your EAGLE username and password.
- 5. To logout of the EAGLE and close the secure telnet connection, perform these actions.
 - At the EAGLE, enter the logout command.
 - Press the Ctrl+] keys to receive the telnet prompt.
 - Enter quit.



D Remote Database Backup and Restore Procedures

Appendix D, Remote Database Backup and Restore Procedures, describes how to perform a backup of the database to the FTP server, and how to restore the database from the FTP server.

Introduction

This appendix contains the procedures for performing a backup of the database to the FTP server and to restore a database from the FTP server using the chg-db command.

To backup the database, the chg-db command uses these parameters.

- action=backup perform a backup of the database.
- dest=server the destination of the backup operation, the FTP server.

To restore the database, the chg-db command uses these parameters.

- action=restore restore a previously backed up database.
- src=server the source of the database that is being restored, the FTP server.
- file the name of the TAR file on the DB FTP server that contains database that is being restored.

A removable cartridge is not required and cannot be used to backup the database to the FTP server or to restore a database from the FTP server.

To perform a backup of the database to the FTP server or to restore the database from the FTP server, these items must be provisioned in the database.

• An E5-IPSM - perform the procedure Adding an E5-IPSM.

Note:

As of Release 46.5, the E5-IPSM card and its functionality is replaced by the E5-ENET-B (p/n 870-2971-01) or SLIC (p/n 7094646) card. Any references to E5-IPSM and the 870-2877-01 part number should be replaced by the 46.5 and greater card and part number.

 An FTP server for the DB application - perform the procedure Adding an FTP Server.

When the database is backed up to the FTP server, the database on the active partition of the active TDM is packed and compressed into a TAR file andsends the file to the FTP server through an E5-IPSM. Figure D-1 illustrates this action.

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When the database is restored from the FTP server, the TAR that contains the database that is being restored is retrieved by EAGLE through an E5-IPSM. The TAR file is unpacked and uncompressed and the database files are placed on the active partition of both TDMs. Figure D-2 illustrates this action. The EAGLE must be reinitialized to load the restored database to all the cards.





To perform a backup of the database to the FTP server, perform the procedure Making a Backup of the Database to the FTP Server.

To restore the database from the FTP server, perform the procedure Restoring the Database from the FTP Server.



Making a Backup of the Database to the FTP Server

This procedure is used to make a backup of the database to FTP server using the chg-db command with these parameters.

- :action=backup
- :dest=server

The database in the active partition of the active **MASP** (**FD CRNT**) must be coherent. The status of the database is shown in the rept-stat-db command. For more information on verifying the database, refer to Verifying the Database.

Note:

As of Release 46.5, the E5-IPSM card and its functionality is replaced by the E5-ENET-B (p/n 870-2971-01) or SLIC (p/n 7094646) card. Any references to E5-IPSM and the 870-2877-01 part number should be replaced by the 46.5 and greater card and part number.

The EAGLE must contain at least one E5-IPSM and an FTP server for the DB application. The rept-stat-gpl command with the appl=ips parameter displays the E5-IPSMs and IPSMs that are in the database. E5-IPSMs are shown by the entry IPSHC in the GPL column of the rept-stat-gpl output. IPSMs are shown by the entry IPS in the GPL column of the rept-stat-gpl output. The rtrv-ftp-serv command shows the FTP servers that are configured. E5-IPSMs can be added by performing the procedure Adding an E5-IPSM. FTP servers can be added by performing the procedure Adding an FTP Server.

When a backup of the database to the FTP server is performed, A file containing the database is created with the following naming convention is created:

"CLLI string"-"Release number string"-"yymmddhh".tar.gz

The CLLI string is the CLLI value shown in the output header. The release number string is the release number shown in the output header. If the archbldid option, shown in the rtrv-stpopts output, is set to yes, the release number string contains the build number instead of the release number. If you wish to change the archbldid option, perform the procedure Configuring the Archive Build ID Option. The string yymmddhh is the year (yy - 2 digits), the month (mm), the day (dd), and the hour (hh) that the backup was performed. For example, the file name for a backup performed on September 26, 2008 at 12 noon would be: rlghncxa03w-39.2.0-08092612.tar.gz. This file name will be needed to restore the database from the FTP server. The file name for the backup can contain a maximum of 39 alphanumeric characters.

1. Verify that the database in the active partition of the active MASP (FDCRNT) is coherent using the rept-stat-db command.

This is an example of the possible output.

rlghncxa03w 08-09-01 16:07:48 GMT EAGLE5 39.2.0 DATABASE STATUS: >> OK <<



If E5-based control cards are installed in the EAGLE, this is an example of the output.

rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0 DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP _____ FD BKUP Y 35 09-02-19 09:38:25 GMT Y 35 09-02-19 09:38:25 GMT FD CRNT Y 106 Y 106 MCAP 1113 MCAP 1115 - ------ -----RD BKUP - -- -Y 35 09-02-19 09:27:17 GMT - - Y 3 09-02-07 USB BKP - -01:11:22 GMT

If the database is coherent, continue the procedure with 2.

If the database is not coherent, refer to Verifying the Database and resolve the database problems. After the database problems have been resolved, continue the procedure with 2.

2. Display the E5-IPSMs that are in the database by entering this command.

rept-stat-card:appl=ips

This is an example of the possible output.

rlghncz	ka03w 08-09-01	L 16:07:48	GMT EAGLES	5 39.2.0	
CARD	VERSION	TYPE	GPL	PST	SST
AST					
1111	131-010-000	IPSM	IPSHC	IS-NR	Active
1317		IPSM	IPS	OOS-MT	Isolated
2217	131-010-000	IPSM	IPS	IS-NR	Active



Command Completed.

E5-IPSMs are shown by the entry IPSHC in the GPL column of the rept-statgpl output. IPSMs are shown by the entry IPS in the GPL column of the reptstat-gpl output. Continue the procedure by performing one of these actions.

- If no entries are shown in the rept-stat-card output, add an E5-IPSM by performing the procedure Adding an E5-IPSM. After the E5-IPSM has been added, continue the procedure with 3.
- If E5-IPSMs are shown in the rept-stat-card output, continue the procedure with 3.
- If only IPSMs are shown in the rept-stat-card output, continue the procedure by performing one of these actions.
 - If two or less entries are shown in this step, add the E5-IPSM by performing the procedure Adding an E5-IPSM After the E5-IPSM has been added, continue the procedure with 3.
 - If three entries are shown in this step, no more IPSMs or E5-IPSMs can be added. A IPSM must be removed so the E5-IPSM can be added. perform the procedure Removing an E5-IPSM to remove the IPSM. Add the E5-IPSM by performing the procedure Adding an E5-IPSM After the E5-IPSM has been added, continue the procedure with 3.
- 3. Display the FTP servers that are provisioned in the database by entering the rtrv-ftp-serv command. This is an example of the possible output.

rlghncxa03w 08-09-01 16:07:48 GMT EAGLE5 39.2.0

IPADDR	LOGIN	PRIO	PATH
10.20.50.102	dbuser1	1	~/eagle
100.200.50.102	dbuser1	1	~/eagle
1.255.0.100	ftpmeas3	3	~meas\local
	IPADDR 10.20.50.102 100.200.50.102 1.255.0.100	IPADDR LOGIN 10.20.50.102 dbuser1 100.200.50.102 dbuser1 1.255.0.100 ftpmeas3	IPADDR LOGIN PRIO 10.20.50.102 dbuser1 1 100.200.50.102 dbuser1 1 1.255.0.100 ftpmeas3 3

If the entry db is shown in the APP column, continue the procedure with 4.

If the entry db is not shown in the APP column, perform the procedure Adding an FTP Server to add the FTP server. After the FTP server has been added, continue the procedure with 4.

4. Enter the chg-db:action=backup:dest=server command.

During command execution, these messages should appear.

BACKUP (SERVER): MASP A - Backup starts on active MASP.BACKUP (SERVER) : Copy Database to card memory for processing.BACKUP (SERVER) : Compress Database before archiving.BACKUP (SERVER) : Send database archive to server.BACKUP (SERVER): MASP A - Backup to remote server complete.

A file with the following naming convention is created.

"CLLI string"-"Release number string"-"yymmddhh".tar.gz



The CLLI string is the CLLI value shown in the output header. The release number string is the release number shown in the output header. If the archbldid option, shown in the rtrv-stpopts output, is set to yes, the release number string contains the build number instead of the release number. If you wish to change the archbldid option, perform the procedure Configuring the Archive Build ID Option. The string yymmddhh is the year (yy - 2 digits), the month (mm), the day (dd), and the hour (hh) that the backup was performed. For example, the file name for a backup performed on September 26, 2008 at 12 noon would be: rlghncxa03w-39.2.0-08092612.tar.gz. The file name for the backup can contain a maximum of 39 alphanumeric characters. This file name will be needed to restore the database from the FTP server. Record this filename.



Figure D-3 Making a Backup of the Database to the FTP Server



Sheet 1 of 2







Sheet 2 of 2

Restoring the Database from the FTP Server

This procedure is used to restore the database from the FTP server using the chg-db command with these parameters.

- action=restore
- src=server
- file the name of the TAR file on the FTP server that contains database that is being restored. The file parameter value is the file name that was created when the database was backed up to the FTP server. The file parameter value can contain a maximum of 39 alphanumeric characters. Refer to Making a Backup of the Database to the FTP Server for more information about the file name for database backups to the FTP server.

Note:

As of Release 46.5, the E5-IPSM card and its functionality is replaced by the E5-ENET-B (p/n 870-2971-01) or SLIC (p/n 7094646) card. Any references to E5-IPSM and the 870-2877-01 part number should be replaced by the 46.5 and greater card and part number.

The EAGLE must contain at least one E5-IPSM and an FTP server for the DB application. The rept-stat-card command with the appl=ips parameter displays the E5-IPSMs and IPSMs that are in the database. E5-IPSMs are shown by the entry IPSHC in the GPL column of the rept-stat-gpl output. IPSMs are shown by the entry IPS in the GPL column of the rept-stat-card output. The rtrv-ftp-serv command shows the FTP servers that are configured. E5-IPSMs can be added by performing the procedure Adding an E5-IPSM. FTP servers can be added by performing the procedure Adding an FTP Server.

The EAGLE must contain at least one E5-IPSM and an FTP server for the DB application. The rtrv-stp command with the gpl=ipshc parameter displays the E5-IPSMs. The rtrv-ftp-serv command shows the FTP servers that are configured. E5-IPSMs can be added by performing the procedure Adding an E5-IPSM. FTP servers can be added by performing the procedure Adding an FTP Server.

Caution:

Using the action=restore parameter with the chg-db command is an emergency recovery procedure, and requires the init-sys command to download the restored database to all the cards in the EAGLE.

1. Display the E5-IPSMs that are in the database by entering this command.

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



This is an example of the possible output.

rlghncxa03w 08-09-0	1 16:07:48	GMT EAGLE	5 39.2.0	
CARD VERSION	TYPE	GPL	PST	SST
AST				
1111 131-010-000	IPSM	IPSHC	IS-NR	Active
1317	IPSM	IPS	OOS-MT	Isolated
2217 131-010-000	IPSM	IPS	IS-NR	Active

Command Completed.

E5-IPSMs are shown by the entry IPSHC in the GPL column of the rept-statcard output. IPSMs are shown by the entry IPS in the GPL column of the reptstat-card output. Continue the procedure by performing one of these actions.

- If no entries are shown in the rept-stat-card output, add an E5-IPSM by performing the procedure Adding an E5-IPSM. After the E5-IPSM has been added, continue the procedure with 2.
- If E5-IPSMs are shown in the rept-stat-card output, continue the procedure with 2.
- If only IPSMs are shown in the rept-stat-card output, continue the procedure by performing one of these actions.
 - If two or less entries are shown in this step, add the E5-IPSM by performing the procedure Adding an E5-IPSM After the E5-IPSM has been added, continue the procedure with 2.
 - If three entries are shown in this step, no more IPSMs or E5-IPSMs can be added. An IPSM must be removed so the E5-IPSM can be added. perform the procedure Removing an E5-IPSM to remove the IPSM. Add the E5-IPSM by performing the procedure Adding an E5-IPSM After the E5-IPSM has been added, continue the procedure with 2.
- 2. Display the FTP servers that are provisioned in the database by entering the rtrv-ftp-serv command. This is an example of the possible output.

rlghncxa03w 08-09-01 16:07:48 GMT EAGLE5 39.2.0

APP	IPADDR	LOGIN	PRIO	PATH
db	10.20.50.102	dbuser1	1	~/eagle
dist	100.200.50.102	dbuser1	1	~/eagle
meas	1.255.0.100	ftpmeas3	3	~meas\local

If the entry db is shown in the APP column, continue the procedure with 3.

If the entry db is not shown in the APP column, perform the procedure Adding an FTP Server to add the FTP server. After the FTP server has been added, continue the procedure with 3.



3. Enter the chg-db command with the action=restore, src=server, and file parameters. For this example, enter this command.

```
chg-
db:action=restore:src=server:file="rlghncxa03w-39.2.0-0809261
2.tar.gz"
```

During command execution, these messages appear (the active **MASP** is displayed first).

```
RESTORE (SERVER) : Retrieve database archive from server.
RESTORE (SERVER) : Validate database archive.
RESTORE (SERVER) : Restore starts on active MASP.
RESTORE (SERVER) : Restore from server on active MASP complete.
RESTORE (SERVER) : Restore starts on standby MASP.
RESTORE (SERVER) : Restore from server on standby MASP complete.
RESTORE (SERVER) : Restore from server on standby MASP complete.
RESTORE (SERVER) : MASP(s) will reboot to load data.
```

4. When the commands have successfully completed, re-initialize the **EAGLE** using the init-sys command.

Note:

The init-sys command causes a complete reload of the EAGLE, and should only be used during periods of low traffic. Using this command ensures that all cards are running the same database, but will interrupt service.

Note:

The init-sys command must be entered twice within 30 seconds for the **EAGLE** to be re-initialized. If the init-sys command is not executed twice within 30 seconds, the attempt to re-initialize the **EAGLE** is aborted.

When the init-sys command is first entered, this message should appear.

```
rlghncxa03w 08-09-01 07:05:01 GMT EAGLE5 39.2.0
CAUTION: This command causes a complete system reload, and
will result in traffic loss.
Re-enter command within 30 seconds to confirm.
```

When the init-sys command is re-entered within the 30 second time limit, this message should appear.

```
rlghncxa03w 08-09-01 07:05:17 GMT EAGLE5 39.2.0
Init System command issued at terminal #4
```



From the time that the init-sys command is accepted, you must wait approximately 2 minutes before you can perform 5 (logging into the **EAGLE**). If the **EAGLE** terminal is in the **VT**-100/**VT**-320 mode, the terminal display will be refreshed with non-zero alarm counts. During this 2 minutes interval, an intermediate screen refresh caused by the **MASPs** role change from active to standby, and from standby to active. This screen refresh is typically a partial refresh and the alarm indicators are set to zero.

If you are logged into the EAGLE in the KSR mode, the only response you will receive that you are now able to log into the EAGLE is that you will receive UAM 0009, MASP became active. UAM 0009 could be issued twice due to possible transient MASP role change (switching from active to standby). Following the execution of the init-sys command, the MASP that was active before the init-sys command was entered will be the active MASP when the EAGLE has finished reinitializing.

5. Log into the EAGLE using the login or act-user command.

This is an example of the messages that appear when you have successfully logged into the **EAGLE**.

NOTICE: This is a private computer system. Unauthorized access or use may lead to prosecution.

0 LOGIN failures since last successful LOGIN Last successful LOGIN was on port 4 on 08-09-01 @ 05:34:56

6. Verify that the databases on the removable cartridge (**RD BKUP**) and the current partitions of both **MASPs** (**FD CRNT**) are coherent using the rept-stat-db command.

This is an example of the possible output.

rlghncxa03w 08-09-01 16:07:48 GMT EAGLE5 39.2.0 DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV) C LEVEL TIME LAST BACKUP C LEVEL TIME LAST BACKUP ----- - -----_____ FD BKUP Y 35 08-09-01 07:06:18 GMT Y 35 08-09-01 07:06:18 GMT FD CRNT Y 106 Y 106 MDAL 1117 - -------RD BKUP --

If E5-based control cards are installed in the EAGLE, this is an example of the output.

rlghncxa03w 09-03-01 16:07:48 GMT EAGLE5 40.1.0 DATABASE STATUS: >> OK << TDM 1114 (STDBY) TDM 1116 (ACTV)



	С	LEVEL	TIME LA	AST BACKUP	<u> </u>	С	LEVEL	TIME	LAST
BACKUP									
FD BKUP	Y	35	09-02-19	09:38:25	GMT	Y	35	09-02-2	L9
09:38:2	5 GMI								
FD CRNT	Y	106			•	Y	106		
	MCAF	9 1113			1	MCAP	1115		
RD BKUP	-	-	-	-		Y	35	09-02-2	19
09:27:1	7 GMI								
USB BKP	-	-	-	-	-	Y	3	09-02-0)7
01:11:22	2 GMI								

command.



Figure D-4 Restoring the Database from the FTP Server



Configuring the Archive Build ID Option

When the database is backed up to the FTP server, the release number string of the file name that is created is either the software release number or the software build number. The archbldid value of the on or off parameters of the chg-stpopts command determines which number is used as the release number string.

- If the on=archbldid parameter is specified, the software build number is used as the release number string.
- If the off=archbldid parameter is specified, the software release number is used as the release number string.

The system default value for the archbldid parameter is off.

1. Display the value for the archbldid parameter by entering the rtrv-stpopts command.

The value of the archbldid parameter is shown in the ARCHBLDID field. This is an example of the possible output.

```
rlghncxa03w 10-07-17 16:02:05 GMT EAGLE5 42.0.0
STP OPTIONS
------
ARCHBLDID off
```

Note:

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

2. Change the value of the archbldid parameter.

To change the archbldid parameter to on, enter this command.

chg-stpopts:on=archbldid

To change the archbldid parameter to off, enter this command.

chg-stpopts:off=archbldid

When this command has successfully completed, this message should appear.

```
rlghncxa03w 06-10-07 00:22:57 GMT EAGLE5 36.0.0
CHG-STPOPTS: MASP A - COMPLTD
```

3. Verify the changes using the rtrv-stpopts command.



If the on=archbldid parameter was specified in 2, this is an example of the possible output.

```
rlghncxa03w 10-07-17 16:02:05 GMT EAGLE5 42.0.0
STP OPTIONS
------
ARCHBLDID on
```

If the off=archbldid parameter was specified in 2, this is an example of the possible output.

```
rlghncxa03w 10-07-17 16:02:05 GMT EAGLE5 42.0.0
STP OPTIONS
------
ARCHBLDID off
```

Note:

The rtrv-stpopts command output contains other fields that are not used by this procedure. If you wish to see all the fields displayed by the rtrv-stpopts command, see the rtrv-stpopts command description in *Commands User's Guide*.

4. Back up the new changes using the chg-db:action=backup:dest=fixed command.

These messages should appear, the active **Maintenance and Administration Subsystem** Processor (**MASP**) appears first.

```
BACKUP (FIXED) : MASP A - Backup starts on active MASP.
BACKUP (FIXED) : MASP A - Backup on active MASP to fixed disk
complete.
BACKUP (FIXED) : MASP A - Backup starts on standby MASP.
BACKUP (FIXED) : MASP A - Backup on standby MASP to fixed disk
complete.
```





Figure D-5 Configuring the Archive Build ID Option

